

NEC

Important Upgrade Information

- To use the IntraMail enhancements provided by software versions 03.2*.** and higher, you must use the *NEC IntraMail Utility* version 1.2 to upgrade your IntraMail CompactFlash card. If you don't upgrade your card, the new features will not be available.
- If upgrading from version 3 software prior to 03.10.08 using telephone programming, you must reprogram the options in **1808-IntraMail Subscriber Mailbox Options**, **8005-IntraMail Master Mailbox Options**, and **8006-IntraMail Routing Mailboxes** after the upgrade.
- To avoid having to reprogram the above options, use the latest version of the DS1000/2000 System Administrator to backup and restore the site database.
- Go to <http://ws1.necii.com/ds2000> to download the latest versions of the Update Utility, IntraMail Utility, System Administrator, and system software.

DS1000/2000

Software Manual

03.21.**

This manual has been developed by NEC Unified Solutions, Inc. It is intended for the use of its customers and service personnel, and should be read in its entirety before attempting to install or program the system. Any comments or suggestions for improving this manual would be appreciated. Forward your remarks to:

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Chapter 1

Features

Introduction

Before Reading This Section

This section provides detailed information on the system's features. If you don't know what the various features are, review the Table of Contents for this section and the manual's Index. After reviewing, turn back to this section for the specifics.

Using This Section

The features in this section are in alphabetical order, like a dictionary. This section subdivides each feature definition into headings as follows:

Description

Read *Description* to get an overview of the feature. Along with the feature's description are the *Conditions* and *Default Setting*. Conditions provides the feature's operational limits (if any). Default Setting outlines how the feature works with the default (factory installed) Programming List. When initially installed, the system uses the default setting. For specific default settings on each program, refer to the chart at the end of this manual.

In each feature description there are two icons which provide additional essential information about the feature:



This is the *Software History* icon. Since NEC Unified Solutions is constantly enhancing your system, all options may not be available in all software levels. Read this text to find out the specifics.



This is *Feature Benefit* icon. Read this text to find out how the feature can help co-worker's become more productive and streamline company-wide communications.

Introduction

To check your system's software version:

1. Do not lift the handset, do not press **SPK**, and do not press **ICM**.
2. Dial 8.

Your system's software version displays.

Programming Guide

The *Programming Guide* is an easy-to-use chart that guides you step-by-step through programming the feature. If you're not sure how to set up a feature, start first with the Programming Guide.

Programming List

Programming List explains the system Programming List that lets you customize the feature. Some features require Programming List; others don't. If you decide to customize a feature, use Section 2 to enter the change into the system.

Other Related Features

Read this part to learn how the feature interacts with other features.

Feature Operation

This part provides you with instructions on how to use each feature. These instructions are also provided in the following documents:

- DS1000/2000 Feature Handbook (P/N 80000MFH**)
- DS1000/2000 Multibutton Telephone Quick Reference Guide (P/N 80000MBG**)
- DS1000/2000 Analog Single Line Quick Reference Guide (P/N 80000SLT**)
- DS1000/2000 Soft Key Glossary (P/N 80000GLO**)

DS2000 Load Factor

The total number of components you can install and connect to your DS2000 system depends on power supply capacity and the System Load Factor. Read the following notes, then turn to *DS2000 Load Factor Calculations* below to calculate the System Load Factor.

Notes for Version 3 Software
<p><u>4 Slot Cabinets</u></p> <ul style="list-style-type: none">• Do not install more than 2 16DSTU PCBs under any circumstances.• The first 16DSTU PCB you install must be in the first slot (CN1).• Maximum configuration is 112 ports (although this limit cannot be achieved in a 4 Slot Cabinet).• The total of all extensions and trunks cannot exceed 112.• Always use the System Load Factor Table to check you system configuration.
<p><u>8 Slot Cabinets</u></p> <ul style="list-style-type: none">• Do not install more than 2 16DSTU PCBs for each power supply. (Install your power supplies in the following order: slot CN10<u>1</u>, slot CN10<u>3</u>, slot CN10<u>2</u>.)• The first 16DSTU PCB you install must be in the first slot (CN1).• The total of all extensions and trunks installed cannot exceed 112.• Maximum configuration is 112 ports.• Always use the System Load Factor Table to check your system configuration.
<p>To take full advantage of all the new features and enhancements in software version 03.**.**, always use the latest PCB versions.</p>

DS2000 Load Factor Calculations

The combination of trunks, extensions, 2-OPX Modules and DSS Consoles you can connect to your DS2000 system may be limited by the System Load Factor. Use the *DS2000 System Load Factor Calculations* chart on the next page to verify your system's configuration. When entering data on the chart, for each installed item make entries for each *Load Type*. There are two *Load Types* to consider: 5 VDC and 40 VDC.

To check your system configuration:

1. Indicate the quantity for each PCB, DSS Console, and 2-OPX Module installed in the **Qty** column.
The number of keysets and single line sets does not affect the System Load Factor.
2. For each item for each Load Type, multiply the **Qty** times the **Load** and enter the value in the **Total** column.
For example, two 16DSTU PCBs have a load of 6 for 5 VDC and 40 for 40 VDC.
3. Add up the entries in each **Total** column and enter the values in **Item 1: Load Type Totals**.
4. Review **Item 2: Power Supply Capacity** and determine the capacity of the power supplies installed in your system.
5. Compare the capacities in **Item 2** to your entries in **Item 1**. **Item 1** must always be equal to or less than the entry in **Item 2**.

Do not operate your system if the total for either Load Type exceeds the Power Supply Capacity of your installation.

DS2000 System Configuration

DS2000 System Load Factor Calculations					
Description	Qty	Load Type			
		5 VDC		40 VDC	
		Load	Total	Load	Total
CPU PCB	1	6	6	0	0
16DSTU PCB		3		20	
4ASTU PCB		3		5	
8ASTU PCB		5		8	
4ATRU PCB		4		0	
8ATRU PCB		8		0	
T1 PCB		8		0	
UltraMail PCB (FMS)		19		0	
UltraMail 2000 PCB (VMS)		0		6	
Telephones (Keypsets and SLTs)		0		0	
110-Button DSS Console		0		2	
24-Button DSS Console		0		1	
2-OPX Module		0		3	
Item 1: Load Type Totals (Cannot exceed Item 2: Power Supply Capacity.)					
Item 2: Power Supply Capacity					
If you have <u>one</u> power supply installed, the capacity is: 5 VDC = 40 40 VDC = 48					
If you have <u>two</u> power supplies installed, the capacity is: 5 VDC = 80 40 VDC = 80					
If you have <u>three</u> power supplies installed, the capacity is: 5 VDC = 120 40 VDC = 120					
Notes:					
<ul style="list-style-type: none"> • A 4 slot cabinet can only have 1 power supply. • An 8 slot cabinet can have up to 3 power supplies. You <i>cannot</i> have more than two 16DSTU PCBs per power supply, regardless of System Load Factor calculations. • Exceeding the allowed Load Type Total (Item 1) will cause the system's power supplies to automatically shut down and/or cause erratic system operation. • Total DSS Consoles installed cannot exceed 4. • The total of all station, trunk, and UltraMail ports cannot exceed 112. 					

Examples of Typical DS2000 4-Slot Cabinet Configurations

- **16 x 32** (16 trunks and 32 digital extensions)
Recommended for sites with no external Voice Mail and high trunk usage.
- **24 x 16** (24 trunks and 16 digital extensions)
Recommended for sites with no external Voice Mail and very high trunk usage.
- **8 x 16 x 16** (8 trunks, 16 digital extensions and 16 analog extensions)
Recommended for sites with external Voice Mail, normal trunk usage and high analog extension usage.
- **16 x 16 x 8** (16 trunks, 16 digital extensions and 8 analog extensions)
Recommended for sites with external Voice Mail, high trunk usage and high analog extension usage.
- **8 x 32 x 8** (8 trunks, 32 digital extensions and eight analog extensions)
Recommended for sites with external Voice Mail, normal to low trunk usage and low analog extension usage.

Examples of Typical DS2000 8-Slot Cabinet Maximum Configurations

- **32 x 64** (32 trunks and 64 digital extensions)
Recommended for sites with no external Voice Mail and high trunk usage. This configuration requires 2 power supplies.
- **48 x 32** (48 trunks and 32 digital extensions)
Recommended for sites with no external Voice Mail and very high trunk usage. This configuration requires 1 power supply.
- **16 x 32 x 32** (16 trunks, 32 digital extensions and 32 analog extensions)
Recommended for sites with external Voice Mail, normal trunk usage and high analog extension usage. This configuration requires 2 power supplies.
- **32 x 32 x 16** (32 trunks, 32 digital extensions and 16 analog extensions)
Recommended for sites with external Voice Mail, high trunk usage and high analog extension usage. This configuration requires 2 power supplies.
- **16 x 64 x 16** (16 trunks, 64 digital extensions and 16 analog extensions)
Recommended for sites with external Voice Mail, normal to low trunk usage and low analog extension usage. This configuration requires 3 power supplies.

DS2000 Hardware Default Setup with Automatic Slot Configuration

Automatic Slot Configuration automatically sets up your system's PCBs when you initially power up the system. There is no longer a factory-installed default configuration, and you don't have to use system programming to activate PCBs after you plug them in. **Remember, you should always plug a 16DSTU PCB into slot CN1.**

To take full advantage of all the new features and enhancements in software version 03.**.**, always use the latest PCB versions.

DS1000 System Configuration

DS1000 Load Factor

DS1000 System Load Factor Calculations

The combination of extensions, Digital Door Boxes, 2-OPX Modules, and DSS Consoles you can connect to your system may be limited by the System Load Factor. Use the *DS1000 System Load Factor Calculations* chart below to verify your system's configuration.

To check your system configuration:

1. Indicate the quantity for each item installed in the **Qty** column.
2. For each item, multiply the **Qty** times the **Load Factor** and enter the value in **Total Load**.
3. Add all the values in the **Total Load** column and enter the value in **Item 1**.
4. Compare the entry in **Item 2** to your entry in **Item 1**. **Item 1** must always be equal to or less than the entry in **Item 2**.

Do not operate your system if the System Load Factor total (Item 1) exceeds the allowable load of 30 (Item 2).

DS1000 System Load Factor Calculations			
Description	Load Factor	Qty	Total Load
Digital Telephone and Digital Door Box	1		
Analog Telephone	1		
Analog Door Box	0		
24-Button DSS Console	1		
110-Button DSS Console	2		
Total DSS Consoles installed cannot exceed 4			
2-OPX Module	3		
Item 1: Total load for this configuration			
Item 2: Maximum allowable load			30

DS1000 System Configuration

DS1000 Default Setup

Using the factory installed default configuration, your DS1000 system provides:

	Base	Expansion	Total
Trunks	3	3	6
Digital Extensions	8	8	16
Analog Extensions	4	4	8
Analog Door Boxes	1	1	2
Relays	1	1	2
Page Output	1	-	1
Music Input	1	-	1

For more on installing the DS1000 Expansion PCB, refer to the *DS1000 Quick Setup Guide* (P/N 80200QSET**) that came with your system.

Initial System Startup

Default Feature Setup

Trunks

- All trunks are loop start DTMF.
*Use **Program 1001 - Trunk Circuit Type** (page 699) to change this assignment.*
- In DS2000, trunks 1-12 ring on line keys 1-12 for extensions 300-315. All other extensions are lamp only for trunks 1-12. Trunks 13-64 do not appear on line keys.
- In DS1000, trunks 1-6 ring on line keys 1-6. (Trunks 4-6 require the Expansion Board.)
- Use **User Programmable Features** (page 577) code **#RAL** or **Program 1805 - Ring Assignments** (page 767) to customize ringing.

Extensions

- The circuit types for keyset extensions are automatically set when the extension is plugged in.
*Use **Program 1801 - Extension Circuit Type** (page 754) to change this assignment.*
- Keyset users can place outside calls by:
 - Pressing a line key and dialing the outside number.
*See **Central Office Calls, Placing** (page 119) for more.*
 - Pressing **ICM**, dialing 9, and dialing the outside number.
*See **Trunk Group Routing** (page 566) for more.*
- Line Dial-Up and Direct Trunk Access are disabled.
*See **Central Office Calls, Placing** (page 119) for more.*
- At the attendant's extension (300), key 11 is the Night (System Mode System) key and the last key on the phone (12 or 24, depending on telephone model) is the Operator Call Key.
*Pressing the Night (System Mode System) key puts the system in the night mode. See **Night Service / Night Ring** on page 389.
Use the Operator Call Key to answer incoming Intercom calls queued at the attendant's extension. See **Attendant Call Queuing** on page 35.*

Initial Startup Programming

Initial Startup Programming (Page 1 of 2)

Step 1: Check the system defaults.

- If you have a DS2000, refer to *DS2000 Hardware Default Setup with Automatic Slot Configuration* on page 5.
- If you have a DS1000, refer to *DS1000 Default Setup* on page 7.
- To check the feature defaults, refer to *Default Feature Setup* on page 8.

Step 2: Enter the programming mode.

- From any display telephone:
Press **ICM** + **##**** + Password + **HOLD**.
- The default system passwords are:
Installer (level 3) = 372000
System Administrator 2 (level 2) = 9999
System Administrator 3 (level 1) = 0000

Step 3: Assign the correct circuit type to your installed trunks.

- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each installed trunk. Analog trunk types are:
51 = Loop start DTMF
52 = Loop start DP

Step 4: By default, each extension has full access to each trunk. Do you want to change this assignment?

If yes



- For each extension in *Program 1803 - Extension Line Access Assignments* (page 763), assign the access options for each trunk. The options are:
0 = No access
1 = Incoming only
2 = Outgoing only
3 = Full access
- Use *Program 9801 - Copy Command* (page 786), to simplify your programming.

If no



- In *Program 1803 - Extension Line Access Assignments* (page 763), make no changes from the default assignments.

Initial System Startup

Initial Startup Programming (Page 2 of 2)

Step 5: Do you want to change the way extensions ring for incoming trunk calls?

If yes

- For each extension in *Program 1805 - Ring Assignments* (page 767), assign ringing for each trunk. The options are:
 - 1 = Lamp only (day and night)
 - 2 = Ringing day and night
 - 3 = Night Ring only, lamp during the day
 - 4 = Delay ring day and night
- Use *Program 9801 - Copy Command* (page 786), to simplify your programming.
- The system attendant (extension 300) can put these trunks in the night mode by pressing their preassigned Night (System Mode System) key (key 11).

If no

- For each extension in *Program 1805 - Ring Assignments* (page 767), make no changes from the default assignments.

Step 6: Does your system have external Voice Mail?

If yes

- Turn to *Voice Mail* on page 580 and review the required Voice Mail programming.

If no

- Go to the next step.

Step 7: Do you want to change the default system passwords?

If yes

- In *Program 9905 - Password* (page 811), change the passwords from their default settings.

If no

- In *Program 9905 - Password* (page 811), do not change the passwords from their default settings.

Step 8: Do you want to return the system to its factory installed (default) programming?

If yes

- In *Program 9999 - System Initialization* (page 822), reinstate the factory installed programming. ***This erases all your programming and returns the system to its initial default settings.***

If no

- In *Program 9999 - System Initialization* (page 822), ***do not*** reinstate the factory installed programming.

Table 1: Dial Codes (by Feature)

For this feature	Dial this code	When you are
Barge In (Intrusion)	4	Barging-In on a co-worker's call
Call Forwarding	ICM + *30	Canceling Call Forwarding at an extension
	ICM + *32 + Extension or 0 (for the operator)	Enabling Call Forwarding Busy/No Answer
	ICM + *33	Setting up Call Forwarding Off Premise
	ICM + *34 + Extension or 0 (for the operator)	Enabling Call Forwarding All Calls
	ICM + *36 + Extension or 0 (for the operator)	Enabling Call Forwarding No Answer
	ICM + *37 + 2 (all calls) or 8 (outside calls)	Setting up Personal Answering Machine Emulation
Call Waiting / Camp-On	2 + Do not hang up 2 + Hang up	Camping-On to a co-worker Leaving a Callback for a co-worker
Central Office Calls, Placing	ICM + #9 + Trunk number (e.g., 01)	Using Line Dial-Up to place an outside call
	ICM + Trunk extension number (e.g., 101)	Using Direct Trunk Access to place an outside call
	ICM + 9 or 90-98	Accessing a Trunk Group to place an outside call
Dial Number Preview	*	Previewing a number before dialing
Directed Call Pickup	ICM + ** + Extension	Intercepting a call ringing a co-worker's extension
Flash	#3	Flashing a trunk at a single line extension
Forced Trunk Disconnect	#	Using Forced Trunk Disconnect to disconnect a busy outside line
Group Call Pickup	ICM + *#	Answering a call ringing a phone in your Pickup Group
Hold	ICM + *4 + Trunk number (e.g., 01)	Picking up an outside call on System Hold at a co-worker's extension
Intercom	ICM + Extension (e.g., 301)	Placing an Intercom call to a co-worker
Meet-Me Conference	ICM + #11 or # 12	Setting up or joining a Meet-Me Conference

Charts and Illustrations

Table 1: Dial Codes (by Feature)

For this feature	Dial this code	When you are
Monitor / Silent Monitor	6	Setting up Monitor after calling a busy co-worker
Night Service / Night Ring	** + UNA code (01-04)	Answering a call ringing UNA at night
Paging	ICM + *1 + Page zone (1-7 or 0 for All Call)	Making an internal Paging announcement
Park	ICM + * + System Park Orbit (60-69)	Parking or retrieving a call from System Park Orbit
	ICM + ** + Extension (e.g., 301)	Using Personal Park to Park or retrieve a call at a co-workers extension
Removing Trunks and Extensions From Service	ICM + #40 + Extension (e.g., 301) or trunk (e.g., 101) + 4 (to return) or 6 (to remove)	Removing or returning an extension or trunk to service
Selectable Display Messaging	ICM + *38 + Message (00-16) + Hold + Add additional digits + Hold	Enabling a Selectable Display Message
Speed Dial	ICM + # + System bin (200-299) or Personal bin (701-720)	Dialing a System or Personal Speed Dial number
Transfer	ICM + Extension (e.g., 301)	Transferring a call to a co-worker's extension
	ICM + Extension (e.g., 301) + MW	Transferring a call to a co-worker's mailbox
Trunk (Line) Queuing / Trunk Call-back	2	Queuing or leaving a Callback for a busy trunk
Voice Mail	ICM + MW	Calling your mailbox from your keyset
	Lift handset + *8	Calling your mailbox from your single line telephone
	ICM + Extension (e.g., 301) + MW	Transferring a call to a co-worker's mailbox from your keyset
	Hookflash + Extension (e.g., 301) + 8	Transferring a call to a co-worker's mailbox from your single line
	ICM + *37 + 2 (all calls) or 8 (outside calls)	Setting up Personal Answering Machine Emulation
	ICM + *30	Canceling Personal Answering Machine Emulation
Voice Over	9	Initiating a Voice Over to a busy extension (after hearing busy/ring tone)

Charts and Illustrations

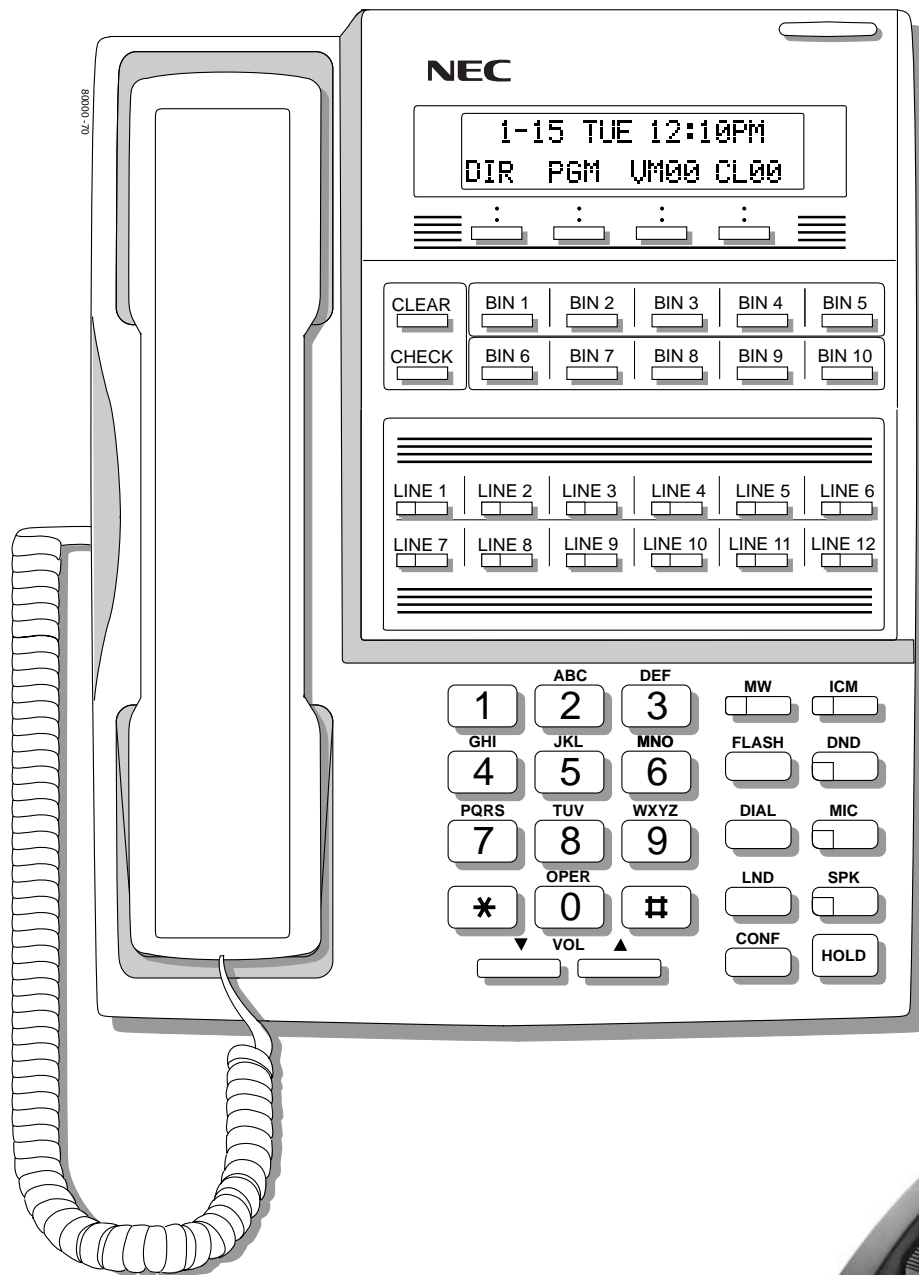
Table 2: System Number Plan/Capacities (Page 1 of 2)

	DS1000	DS2000
System Options		
• Classes of Service	1-15 (COS 1 normally reserved for attendants)	
• Conference	32 simultaneous users in Conference (total of all Conferences system-wide) 8 simultaneous Conferences maximum 8 parties maximum in any one Conference	
• Extension Hunting (ACD/UCD) Master Numbers	8	
• Extension Hunting Groups	8 (1-8)	
• Group Call Pickup Groups	8 (1-8, 0 = unassigned)	
• Privacy Release Groups	16 (1-16, 0 = unassigned)	
• Speed Dial, Personal	20 bins at each extension (701-720) See Speed Dial (page 481) for additional information on Speed Dial capacities.	
• Speed Dial, System	10 (20-29), 100 (200-299), 1000 (2000-2999) See Speed Dial (page 481) for additional information on Speed Dial capacities.	
• Tenant Groups	1	
• Timeslots	Non-blocking	
• Toll Restriction Levels	7 (1-7, 0 = no restriction)	
Trunks		
• Direct Trunk Access Codes	101-106	101-164
• Line Dial Up Codes	#901-#906	#901-#964
• Ring Groups	8 (1-8) 0 = No assignment Ring Group master numbers are normally 600-607.	
• Trunk Group Access Codes	90-98	
• Trunk Groups	9 (0-8)	
• Trunk Ports	6 (1-6) Trunks 4-6 require the Expansion Board.	64 (1-64)
Extensions		
• Attendant (Operator) Access Number	0 (single operator) 01-04 (multiple operators)	
• Attendants	4	
• 2-OPX Modules	Each 2-OPX Module uses one digital station port. The System Load Factor may limit the total number you can install. See <i>DS2000 Load Factor</i> on page 3 and <i>DS1000 Load Factor</i> on page 6.	

Charts and Illustrations

Table 2: System Number Plan/Capacities (Page 2 of 2)

	DS1000	DS2000
• Digital Door Boxes	Each Digital Door Box uses one digital station port. The System Load Factor may limit the total number you can install. See <i>DS2000 Load Factor</i> on page 3 and <i>DS1000 Load Factor</i> on page 6.	
• Analog Door Boxes	2 2nd Analog Door Box requires Expansion PCB	N/A
• DSS Consoles	4 The System Load Factor may limit the total number that you can install. See <i>DS2000 Load Factor</i> on page 3 and <i>DS1000 Load Factor</i> on page 6.	
• Telephone Extension Numbers	300-333 (which includes digital extensions 300-315, analog extensions 31-323, and Analog Door Boxes 324 and 325)	300-427
• Telephone Station Numbers	34 (1-34)	128 (1-128)
• Total Number of Station Devices	34 (which includes digital extensions 300-315, analog extensions 316-323, and Analog Door Boxes 324 and 325)	128 (may be limited by load factor)
• UCD Hunting Master Numbers	8 (1-8) Master numbers are normally 700-707.	
• Voice Mail Master Numbers	1 (normally 700)	
• External Voice Mail Ports	Limited by available analog and digital station ports.	
Paging and Park		
• Page Zones (Internal)	7 zones (1-7) and All Call (0)	
• Page Zone (External)	All Call and zone 1 broadcast from Audio jack (AUDIO)	
• Page Relays	One set in each Analog Door Box jack (DOOR1 and DOOR2)	
• Park Orbits	10 (60-69) Orbits 68 and 69 have extended (5 min.) timers	
Passwords		
• System Administrator 1 (Level 1)	0000	
• System Administrator 2 (Level 2)	9999	
• Installer (Level 3)	372000	



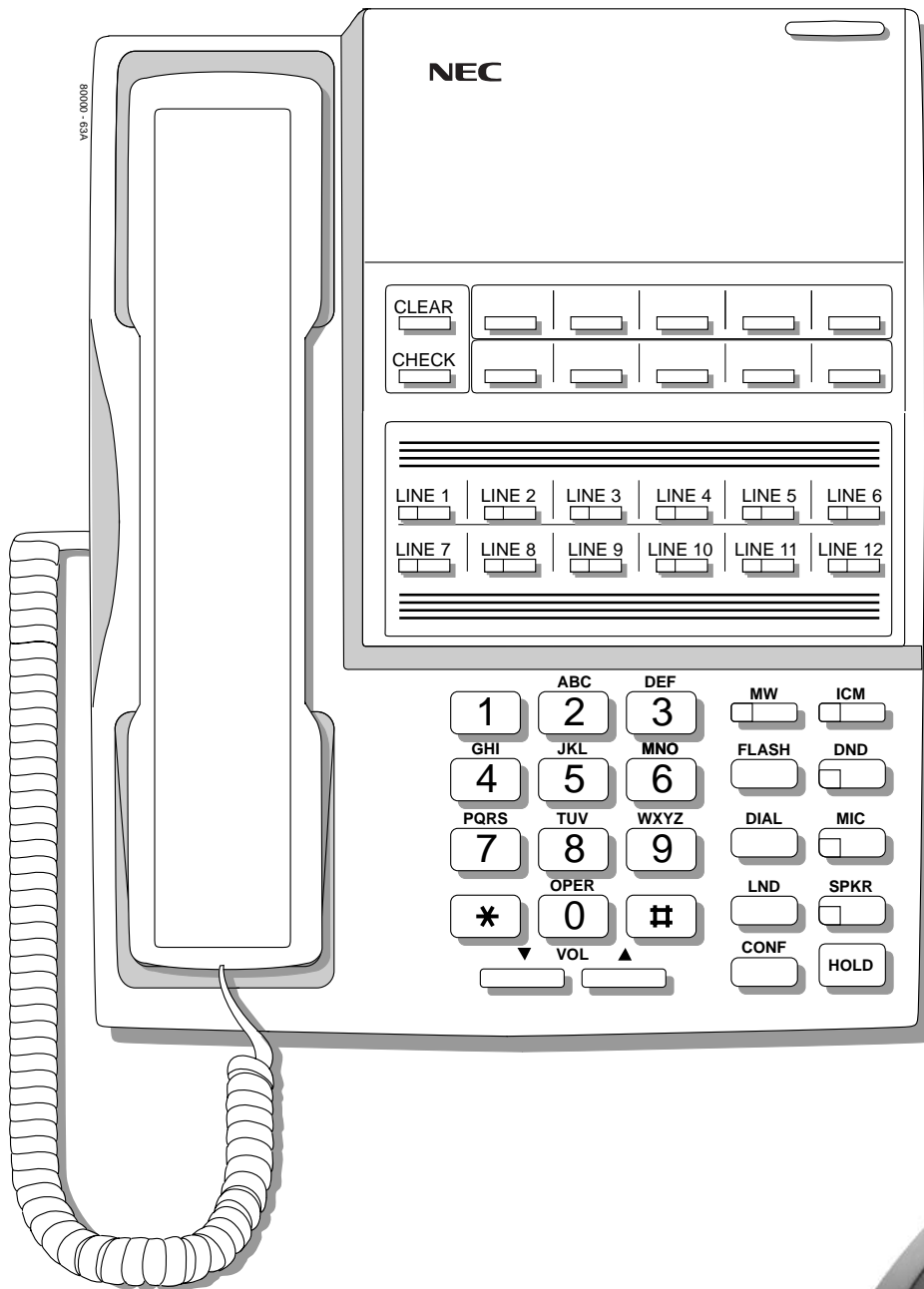
In DS1000:
Keys 7-12 are
undefined.

For Attendants:
Key 11=Night Key
Key 12=Operator Call Key



Figure 1: 22-Button Display Telephone

Charts and Illustrations

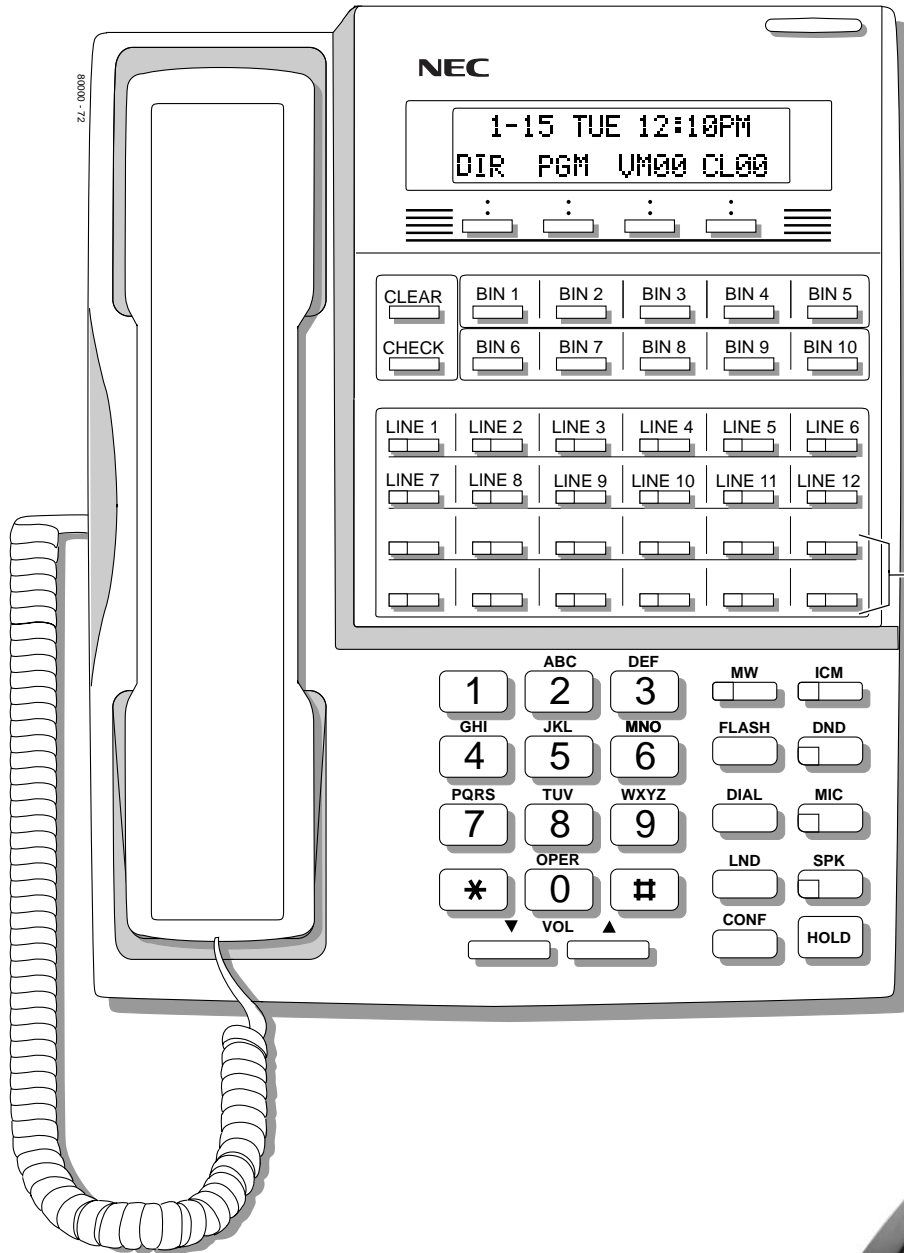


In DS1000:
Keys 7-12 are
undefined.

For Attendants:
Key 11=Night Key
Key 12=Operator Call Key



Figure 2: 22-Button Standard Telephone



For Attendants:
 Key 11=Night Key
 Key 24=Operator Call Key

Keys 13-24 are undefined for non-attendants in DS2000.

Keys 7-24 are undefined for non-attendants in DS1000.



Figure 3: 34-Button Display Telephone

Charts and Illustrations

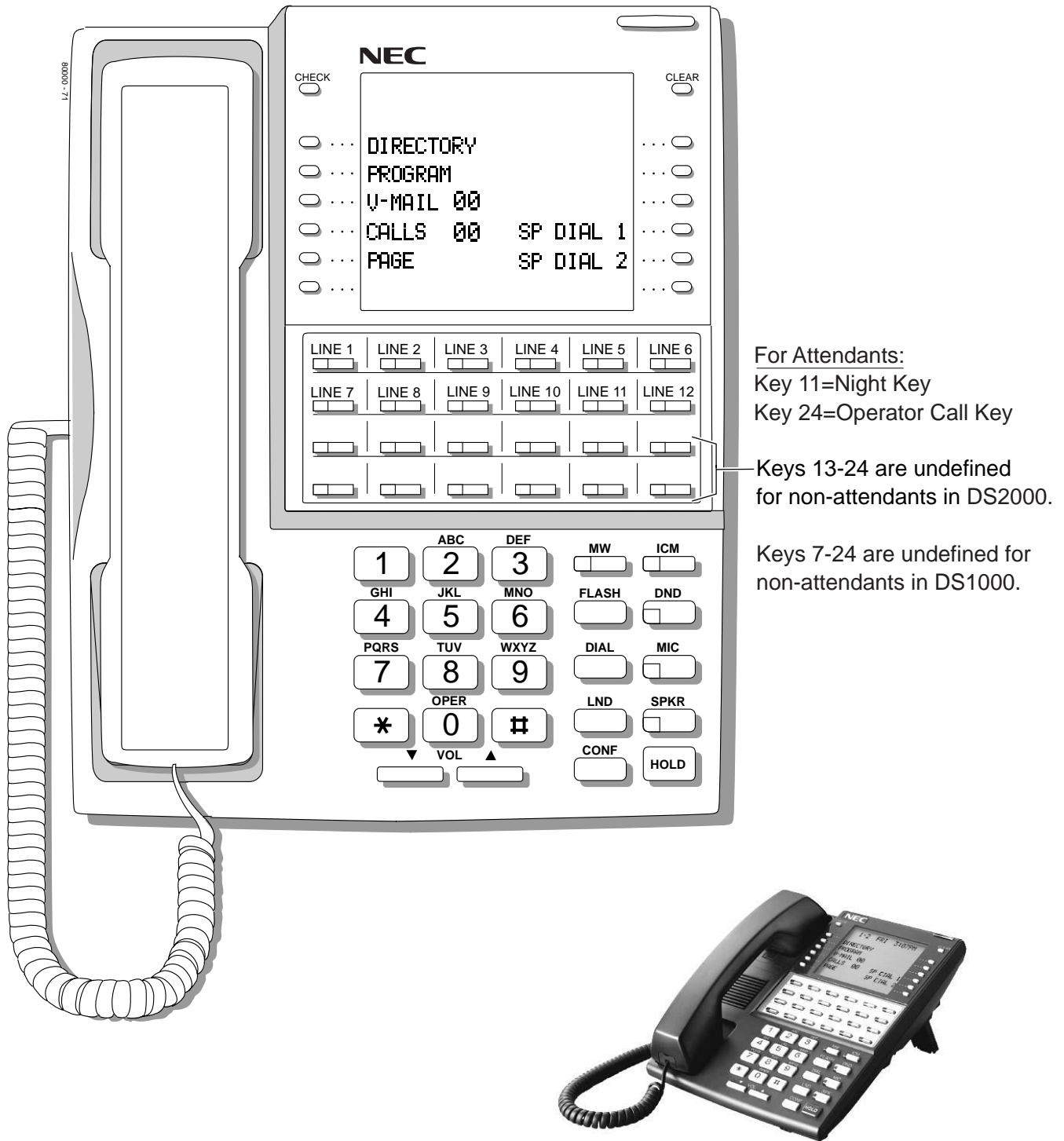


Figure 4: 34-Button Super Display Telephone

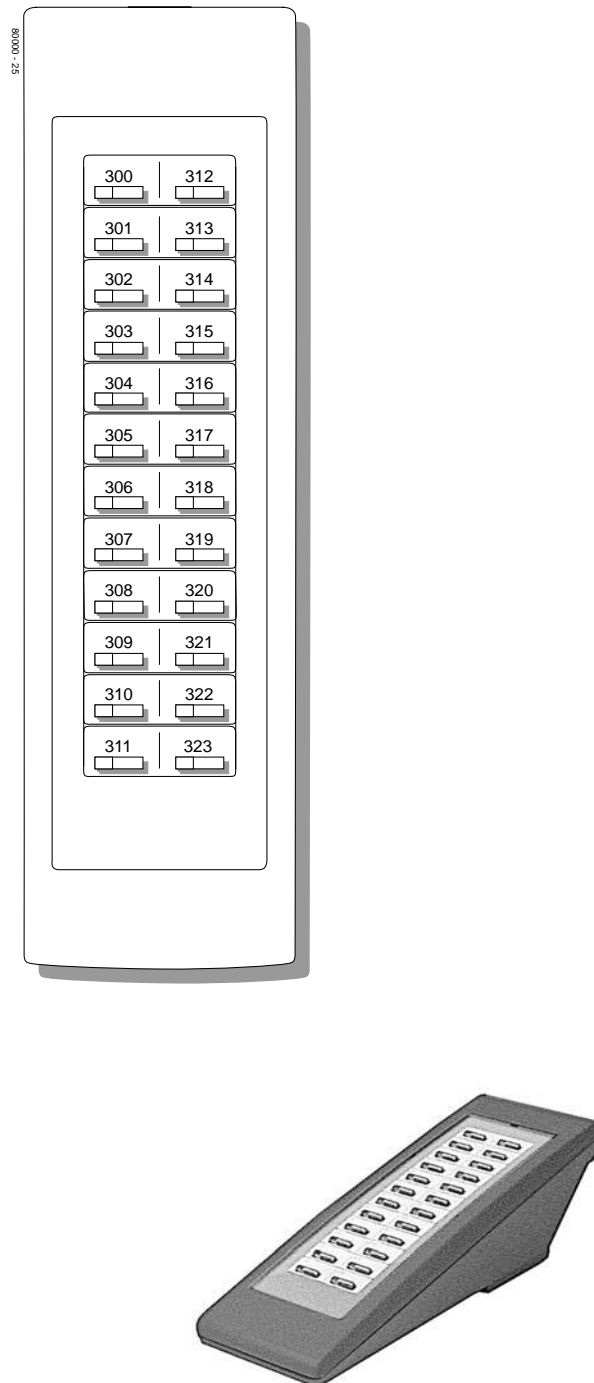


Figure 5: 24-Button DSS Console

Charts and Illustrations

80000-74

300	301	302	303	304	305	306	307	308	309
310	311	312	313	314	315	316	317	318	319
320	321	322	323	324	325	326	327	328	329
330	331	332	333	334	335	336	337	338	339
340	341	342	343	344	345	346	347	348	349
350	351	352	353	354	355	356	357	358	359
360	361	362	363	364	365	366	367	368	369
370	371	372	373	374	375	376	377	378	379
380	381	382	383	384	385	386	387	388	389
390	391	392	393	394	395	PAGE 1	PAGE 2	PAGE 3	PAGE ALL
PARK 0	PARK 1	PARK 2	PARK 3	PARK 4	PARK 5	PARK 6	PARK 7	PARK 8	NIGHT

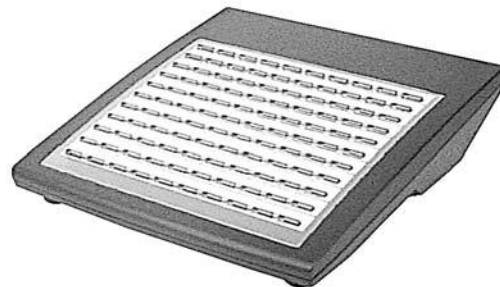
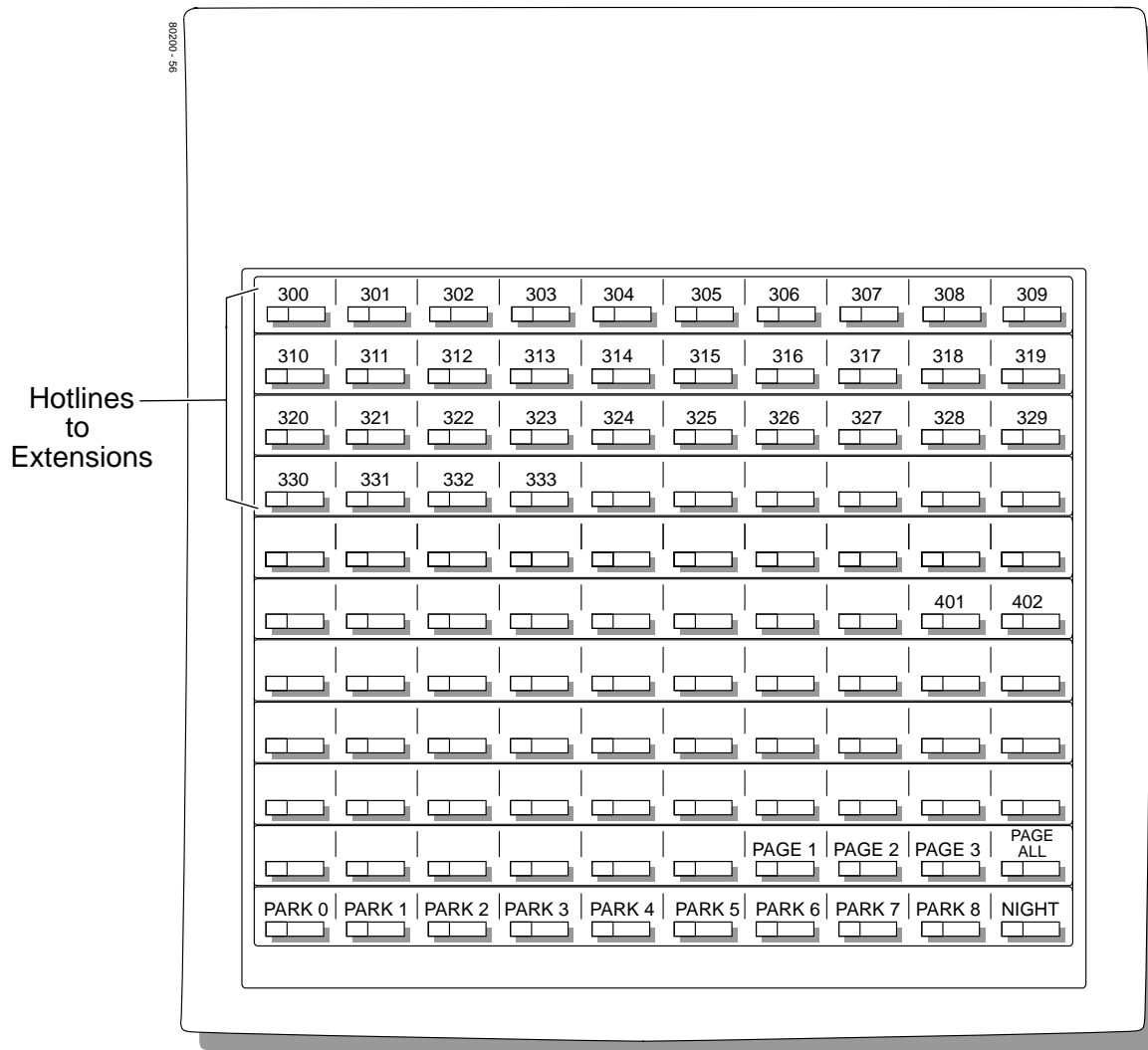


Figure 6: 110-Button DSS Console (DS2000)



Note: Blank keys are undefined.

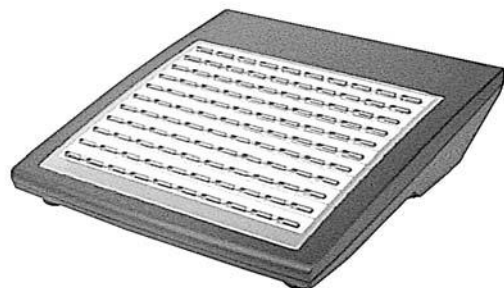


Figure 7: 110-Button DSS Console (DS1000)

2-OPX Module

Description



DS1000/2000

|| Available. See see *Off-Premise Extensions / On-Premise SLT Extensions* on page 399.

2500 Sets / Single Line Telephones

Description



DS1000/2000

Available. See see *Off-Premise Extensions / On-Premise SLT Extensions* on page 399.

Account Codes

Description



DS1000/2000 || Available.



Use Account Codes to categorize and/or restrict outside calls.

Account Codes are user-dialed codes that help categorize and/or restrict trunk calls. Account Codes are from 2-10 digits long, using any combination of the digits 0-9. There are three types of Account Codes:

- Optional (Unforced Account Codes)
- Forced Account Codes
- Verified Account Codes

Optional (Unforced) Account Codes

Optional Account Codes allow a keyset extension user to enter an Account Code while placing a trunk call or any time while on a call. This type of Account Code is optional: the system does not require the user to enter it. If the keyset user is already talking on a trunk call, their conversation continues uninterrupted while they enter an Account Code.

Single line telephone users can only enter an Account Code while placing their trunk call.

Forced Account Codes

Forced Account Codes require an extension user to enter an Account Code every time they place a trunk call. If the user doesn't enter the code, the system prevents the call. The system can require Forced Account Codes for all trunk calls, or just for toll calls (as determined by Toll Restriction programming). Note that Forced Account Codes do not pertain to incoming calls.

Verified Account Codes

With Verified Account Codes, the system compares the Account Code the user dials with a list of codes programmed into the Verified Account Code Table. If the Account Code is in the table, the call goes through (provided it is not prevented by an extension's Toll Restriction programming). If the code is not in the table, the system prevents the call. Verified Account Codes, if enabled, apply only to Forced Account Codes.

Using Account Codes and Speed Dial

To simplify Account Code operation, Personal and System Speed Dial bins can contain Account Codes. Keep the following in mind when using Speed Dial and Account Codes:

- The Account Code can be either the first or last entry in the bin, and must be preceded and followed by the # character. For example, the Account Code 1234 must be entered as #1234#.
- The *Program 0201 - # Key to Enter Account Codes* (page 629) option must be enabled in system programming. In addition, the *Program 0201 - Enable Account Codes in Speed Dial* (page 629) option must also be enabled.
- The Speed Dial bin can contain an Account Code followed by an outside number, or just the Account Code. The Account Code must be preceded and followed by a # entry. If the bin contains just the Account Code, the user must be sure to press the bin key before dialing the outside number.
- If the system has Verified Account Codes enabled, the Account Code entered in the Speed Dial bin must match an entry in the Verified Account Code Table.

- If the Speed Dial bin does not contain an Account Code, the user must enter the Account Code manually. If Forced Account Codes are enabled, the system requires the user to enter the Account Code before it outdials the stored Speed Dial number.
- An extension user can preselect a trunk for a Speed Dial call.

Using Account Codes with Last Number Redial and Save

Last Number Redial and Save do not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Last Number Redial and Save. If Forced Account Codes are enabled, the system requires the user to enter the Account Code before it outdials the stored number saved by Last Number Redial or Save.

An extension user can preselect a trunk for a Last Number Redial or Save call.

Account Codes and Emergency Calls

Account Codes are never enforced for emergency (911 and 1+911) calls.

DSS Console Account Code Key

A keyset user can have an Account Code key on their DSS Console. It works the same as a keyset Account Code key with the following exceptions:

- The DSS Console key flashes quickly red while the user is entering their Account Code. (The keyset Account Code key flashes quickly green.)
- The DSS Console key lights red while the user is on a call for which they have entered an Account Code. (The keyset Account Code key lights green.)

Conditions

Do not use Account Codes that begin with 911 or 1911.

Default Setting

Account Codes disabled.

Account Codes

Programming Guide

Step-by-step guide for setting up Account Codes (Page 1 of 3)

Step 1: Should users be able to store Account Codes in Speed Dial bins?

If yes

- In *Program 0201 - Enable Account Codes in Speed Dial* (page 629), enter Y.

If no

- In *Program 0201 - Enable Account Codes in Speed Dial* (page 629), enter N. Any Account Codes stored in Speed Dial bins dial out as part of the stored number.

Step 2: While on an outside call, should an extension user be able to dial # to enter an Account Code?

If yes

- In *Program 0201 - # Key to Enter Account Codes* (page 629), enter Y.

If no

- In *Program 0201 - # Key to Enter Account Codes* (page 629), enter N.

Step 3: Should Account Code entries be hidden (i.e., replaced by * characters) on each telephone's display?

If yes

- In *Program 0201 - View Account Codes* (page 630), enter N.

If no

- In *Program 0201 - View Account Codes* (page 630), enter Y.

Step 4: Should a keyset have an Account Code key to simplify entering Account Codes?

If yes

- In *Program 1701 - Programmable Function Key Assignments* (page 737), enter 26 to assign a key as an Account Code key.

If no

- In *Program 1701 - Programmable Function Key Assignments* (page 737), do not assign a key with code 26.

Step-by-step guide for setting up Account Codes (Page 2 of 3)

Step 5: Should a DSS Console have an Account Code key to simplify entering Account Codes?

If yes

- In *Program 1704 - DSS Console Key Assignment* (page 746), enter 26 to assign a key as an Account Code key.

If no

- In *Program 1704 - DSS Console Key Assignment* (page 746), do not assign a key with code 26.

Step 6: Should an extension have Forced Account Codes (i.e., be required to enter an Account Code while placing a call)?

If yes

- In *Program 0101 - Forced Account Codes* (page 620), enter Y.
- *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- In *Program 1001 - Disable Forced Account Codes* (page 703), enable No (N) to have the system **enforce** Forced Account Codes for the trunk.
OR
In *Program 1001 - Disable Forced Account Codes* (page 703), enable Yes (Y) to have the system **not enforce** Forced Account Codes for the trunk.

If no

- In *Program 0101 - Forced Account Codes* (page 620), enter N.
- *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 7: Should an extension have Forced Account Codes just for long distance (toll) calls?

If yes

- In *Program 0101 - Forced Account Codes for Toll Calls Only* (page 621), enter Y.
- In *Program 0201 - Account Code Toll Level* (page 629), enter the toll level (0-7) the system will use to determine toll calls. See *Forced Account Codes Programming* on page 29 for more on setting this up.
- *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Forced Account Codes for Toll Calls Only* (page 621), enter N.
- *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Account Codes

Step-by-step guide for setting up Account Codes (Page 3 of 3)

Step 8: Should an extension have Verified Account Codes (i.e., be required to enter an Account Code from the Verified Account Codes Table while placing a call)?

If yes

- In *Program 0101 - Verify Account Codes* (page 621), enter Y.
- In *Program 1201 - Verified Account Codes Table* (page 721), enter codes into the Verified Account Codes table.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Verify Account Codes* (page 621), enter N.
- *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Programming List

General Account Codes Programming

Program 0201 - Enable Account Codes in Speed Dial (page 629)

Enable (Y) this option if users should be able to store Account Codes in Speed Dial bins. This causes the stored Account Code to properly display in the SMDR report *Account* column. If you disable (N) this option, Account Codes stored in Speed Dial bins dial out as part of the stored number and display in the SMDR report *Number Dialed* column. They will not display in the *Account* column. This option is disabled by default.

Program 0201 - # Key to Enter Account Codes (page 629)

Use this option to enable (Y) an extension user to dial # to enter an Account Code while on an outside call. If disabled (N), the extension user can only enter an Account Code by pressing the Account Code soft key or a uniquely programmed Account Code Programmable Function Key. This option is disabled by default.

Program 0201 - View Account Codes (page 630)

Use this option to show or hide the Account Codes a user enters on their telephone's display. If enabled (Y), the dialed Account Codes show on the display. ***This may be a security risk, since a co-worker can easily read the telephone display as the user enters their Account Code.*** If disabled (N), Account Codes are shown as * characters on the telephone display. This option is disabled by default.

Program 1701 - Programmable Function Key Assignments (page 737)

Use this option to assign an Account Code Programmable Function Key to a keyset (code 26). There are no Account Code Programmable Function Keys assigned by default.

Program 1704 - DSS Console Key Assignment (page 746)

Use this option to assign an Account Code Programmable Function Key to a DSS Console (code 26). There are no Account Code Programmable Function Keys assigned by default.

Optional (Unforced) Account Codes Programming

Optional Account Codes are always available without programming.

Forced Account Codes Programming

Program 0101 - Forced Account Codes (page 620)

Use this option to enable (Y) or disable (N) Forced Account Codes. If disabled, Optional Account Codes are still available. This option is disabled by default.

Program 0101 - Forced Account Codes for Toll Calls Only (page 621)

- Use this option to enable (Y) Forced Account Codes only for toll (long distance) calls. If disabled (N), Forced Account Codes apply to all outgoing trunk calls. This option is disabled by default (i.e., Forced Account Codes, if enabled, apply to all outgoing trunk calls).
- The system identifies toll calls according to the settings in *Program 0201 - Account Code Toll Level* (page 629) programming below.
- If *Program 0101 - Forced Account Codes* (page 620) is disabled, the *Program 0101 - Forced Account Codes for Toll Calls Only* (page 621) option has no effect.

Program 0201 - Account Code Toll Level (page 629)

If *Program 0101 - Forced Account Codes for Toll Calls Only* (page 621) is enabled, use this option to differentiate toll calls from local calls for Account Code purposes. If you enter 0 for this option, toll calls are any calls the user dials that begin with 0 or 1. If you enter a toll level for this option (1-7), the system uses the toll level options programmed in *0601 - Configure Toll Level Options* on page 683 for that level to determine if the call is local or toll.

- If the toll level is set to deny the call, it is considered to be a long distance call and the system requires that the user must have entered an Account Code.
- If the toll level permits the call, it is considered to be a local call and no Account Code entry is required.
- Note that additional dialing restrictions enforced by an extension's toll level (set in *Program 1801 - Extension Toll Level Day* (page 755) and *Program 1801 - Extension Toll Level Night* (page 755) are in effect and may also restrict dialing.

Program 1001 - Disable Forced Account Codes (page 703)

Use this option to enable or disable Forced Account Codes for an individual trunk. If enabled (Y), the system **will not** enforce Forced Account Codes for the trunk. If disabled (N), the system **will** enforce Forced Account Codes for the trunk.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Verified Account Codes Programming

Program 0101 - Verify Account Codes (page 621)

Use this option to enable (Y) or disable (N) Verified Account Codes. If enabled, the system compares the Account Code the user dials to the entries in *1201 - Verified Account Codes Table* on page 721. There are no entries in this table by default.

Program 1201 - Verified Account Codes Table (page 721)

- Use this option to enter codes into the Verified Account Codes Table. When *Program 0101 - Verify Account Codes* (page 621) is enabled, the system compares the Account Code the user dials to the entry in this table. If the entries match, the system allows the call (provided it is not prevented by an extension's Toll Restriction). If there is no match, the system denies the call.
- A Verified Account Code can be from 1 to 10 digits long, using the digits 0-9. You can use the * character as a wild card, which can be entered in any position in a Verified Account Code. A wild card allows the user to dial any digit in that position. For example, the entry 11*1 represents entries 1101, 1111, 1121, etc.
- DS1000 provides for 500 table entries. DS2000 provides for 1000 table entries.
- Do not enter either 911 or 1911 into the Verified Account Codes Table. When a user presses a line key and dials either 911 or 1911, the system immediately bypasses all Toll Restriction and Account Code programming and routes the call.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Account Codes

Account Codes Programming Examples

Example 1: Forced Account Codes Require an Account Code only for 900 and 1 + 900 Long Distance Dialing

To set up Forced Account Codes to require entries for only 900 and 1 + 900 calls:

1. In **0101 - Forced Account Codes**, enter Y.
2. In **0101 - Forced Account Codes for Toll Calls Only**, enter Y.
3. In **0201 - Account Code Toll Level**, enter 2 (for example).
4. In **0601 - Initialize Toll Restriction**, be sure to initialize the Toll Restriction tables.

Make the following entries for Toll Restriction Level 2.

5. In **0601 - Active Dial Pad**, enter Y (enabled).
In **0601 - N11 Dialing**, enter Y (enabled).
In **0601 - 0+ Dialing**, enter Y (enabled).
In **0601 - Equal Access (101X + XXX) Dialing**, enter Y (enabled).
6. In **0602 - 1010 + XXX Equal Access Dialing**, make a deny table with no entries (i.e., deny nothing). This is the default setting.
7. In **0603 - 1 + NPA /NXX Dialing 3-Digit Table**, make a deny table and enter 900.
8. In **0604 - 1 + NPA + NXX Dialing 6-Digit Table**, make a deny table with no entries (i.e., deny nothing). This is the default setting.
9. In **0605 - NPA/NXX Dialing 3-Digit Table**, make a deny table and enter 900.
10. In **0606 - NPA + NXX Dialing 6-Digit Table**, make no entries (i.e., deny nothing). This is the default setting. This table is permanently assigned as a deny table.
11. In **1801 - Extension Class of Service**, assign the Class of Service with Forced Account Codes enabled to the extension.
12. In **1801 - Extension Toll Level Day** and **1801 - Extension Toll Level Night**, be sure the extension does not use Toll Level 2. If it does, Toll Restriction will always deny 1 + 900 and 900 calls (regardless of whether the user enters an Account Code).

An extension user can then:

1. Press a line key or dial a code for an outside line.
2. Wait for reminder tone (3 beeps).
*With Forced Account Codes enabled, the system automatically goes into the Account Code mode after you press a line key in step 1 above.
If you have an Account Code Programmable Function Key, it flashes green.*
3. If dialing a 1 + 900 or 900 call, dial the Account Code.
If dialing any other long distance call, skip this step.
4. Press # (if enabled), the Account Code soft key, or an Account Code Programmable Function Key (if programmed).
5. Dial the outside number.
*If the user doesn't enter an Account Code for 900 or 1 + 900 calls, the system will cut off the call.
The system will also cut off any call not allowed by the extension's Toll Restriction programming.*

Example 2: Forced Account Codes Allow 800 and 1 + 800 Long Distance Dialing Without an Account Code

To set up Forced Account Codes to require entries for all calls except 800 and 1 + 800 Dialing:

1. In **0101 - Forced Account Codes**, enter Y.
2. In **0101 - Forced Account Codes for Toll Calls Only**, enter Y.
3. In **0201 - Account Code Toll Level**, enter 2 (for example).

Make the following entries for Toll Restriction Level 2.

4. In **0601 - Active Dial Pad**, enter Y (enabled).
In **0601 - N11 Dialing**, enter Y (enabled).
In **0601 - 0+ Dialing**, enter Y (enabled).
In **0601 - Equal Access (101X + XXX) Dialing**, enter Y (enabled).
5. In **0602 - 1010 + XXX Equal Access Dialing**, make a deny table with no entries (i.e., deny nothing). This is the default setting.
6. In **0603 - 1 + NPA /NXX Dialing 3-Digit Table**, make an allow table and enter 800.
7. In **0604 - 1 + NPA + NXX Dialing 6-Digit Table**, make a deny table with no entries (i.e., deny nothing). This is the default setting.
8. In **0605 - NPA/NXX Dialing 3-Digit Table**, make an allow table and enter 800.
9. In **0606 - NPA + NXX Dialing 6-Digit Table**, make no entries (i.e., deny nothing). This is the default setting. This table is permanently assigned as a deny table.
10. In **1801 - Extension Class of Service**, assign the Class of Service with Forced Account Codes enabled to the extension.

An extension user can then:

1. Press a line key or dial a code for an outside line.
2. Wait for reminder tone (3 beeps).
With Forced Account Codes enabled, the system automatically goes into the Account code mode after you press a line key in step 1 above.
If you have an Account Code Programmable Function Key, it flashes green.
3. If dialing a 1 + 800 or 800 call, skip this step.
If dialing any other long distance call, dial the Account Code.
4. Press # (if enabled), the Account Code soft key, or an Account Code Programmable Function Key (if programmed).
5. Dial the outside number.
The call will go through without an Account Code. If the user doesn't enter an Account Code for all other calls, the system will cut off the call.
The system will also cut off any call not allowed by the extension's Toll Restriction programming.

Account Codes

Other Related Features

Central Office Calls, Placing (page 119)

You can use Store and Forward with Forced Account Codes. See *Store and Forward with Forced Account Codes* on page 120 for more.

Last Number Redial (page 351) and Save Number Dialed (page 468)

Last Number Redial and Save do not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Last Number Redial and Save.

Speed Dial (page 481)

An extension user can store an Account Code in a Speed Dial bin. See *Using Account Codes and Speed Dial* on page 24 for more.

Station Message Detail Recording (page 498)

Account Codes print on the SMDR report.

Voice Mail (page 580)

Voice Mail callout features (such as Message Notification) may interact with Account Codes if the callout number contains # characters.

Feature Operation

To enter an Optional (Unforced) Account Code:

For keysets, Optional Account Codes apply to both incoming and outgoing calls. For outgoing calls, you can enter the Account Code before or after dialing the outside number.





For Single Line sets, Optional Account Codes apply only to outgoing calls. You must enter the Account Code after getting dial tone on the trunk but before dialing the outside number.

1. Place or answer outside call.
2. Press Account Code soft key, Programmable Function Key, or dial # (if enabled).
3. Enter Account Code (up to 10 digits long, using the digits 0-9).
4. Press Account Code soft key, Programmable Function Key, or dial # (if enabled).
5. For Outgoing Calls Only
Dial your outside number.

Toll Restriction may still prevent you from dialing certain outside numbers.

To enter a Forced Account Code:

Forced Account Codes do not apply to incoming calls.

1. Access a line for an outgoing call.
 || Three beeps.
 || Your telephone display prompts you to enter an Account Code.
2. Enter Account Code (up to 10 digits long, using the digits 0-9).
If your system has Verified Account Codes enabled, you must enter one from the Verified Account Codes Table. If you enter an invalid Verified Account Code, your call will be cut off in the next step.
3. Press Account Code soft key, Programmable Function Key, or dial # (if enabled).
 || Dial tone on your outside line.
 || N/A.
4. Dial your outside number.

Toll Restriction may still prevent you from dialing certain outside numbers.

Description



DS1000/2000 Available.



The Alphanumeric Display messages help the display telephone user process calls, identify callers and customize features.

The 22- and 34-Button Display Telephones have a two-line, 20-character per line alphanumeric display. The first line displays the date and time (while idle) and feature status messages. The second line displays the Soft Key definitions.

The 34-Button Super Display Telephone has an eight-line, 20-character per line alphanumeric display. The first line displays the date and time (while idle) and feature status messages, just like the 22- and 34-Button Display Super Display Telephones. Lines 2-8 are the comprehensive Super Display Telephone soft key definitions.

- To learn more about the display telephones:
 - see *22-Button Display Telephone* on page 15
 - see *34-Button Display Telephone* on page 17
 - see *34-Button Super Display Telephone* on page 18
- To learn more about the Soft Keys, see *Soft Keys* on page 480.

Conditions

None

Default Setting

Enabled for all display telephones.

Programming Guide

None

Programming List

None

Other Related Features

Soft Keys (page 480)

The interactive Soft keys provide users with intuitive access to the telephone's features.

Volume Controls (page 603)

While a feature is active, pressing VOL ▲ and VOL ▼ adjusts the volume of the active feature. While a 22-Button or 34-Button Display telephone is idle, pressing VOL ▲ and VOL ▼ adjusts the display contrast. Note that 34-Button Super Display Telephones do not provide contrast adjustments. A system reset or power down returns the user-set contrast setting to a median level.

Alphanumeric Display

Feature Operation

Refer to the individual features for feature operation.

Description



DS1000/2000 || Available.



Attendant Call Queuing helps minimize call congestion in systems that use the attendant as the overflow destination for unanswered calls.

An unlimited number of callers can queue for the attendant. The callers hear ringback while they wait for the attendant to answer — not busy tone. If you have the attendant as the overflow destination for Direct Inward Lines, for example, unanswered DILs will “stack up” at the attendant until they are answered.

Operator Call Key

The last programmable key on an attendant telephone is permanently assigned as an Operator Call Key. When the operator has Intercom calls waiting to be answered, the calls queue under this key. The key winks (on) when calls are queued.

The Operator Call Key is a permanent assignment for all extensions assigned as operators. You cannot change this assignment. Attendant Call Queuing is a permanent, non-programmable feature.

Conditions

None

Default Setting

At attendant (extension 300 by default), key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

Programming Guide

None

Programming List

None

Other Related Features

Attendant Position (page 37)

Assign system attendants.

Call Coverage Keys (page 59)

A Call Coverage Key will not pick up a call ringing the attendant’s Operator Call Key.

Off-Hook Signaling (page 394)

The Operator Call Key does not activate off-hook signaling.

Ringling Line Preference (page 465)

Ringling Line Preference will not answer a call ringing the Operator Call Key.

Voice Mail (page 580)

- TRF transfers to the attendant from the Voice Mail Automated Attendant flash the Operator Call key and the Ring Indicator lamp. The call does not flash a line/loop key. (Note that Ringling Line Preference will not pick up a call ringing the attendant’s Call Queue key.)

Attendant Call Queuing

- UTRF transfers to the attendant from the Voice Mail Automated Attendant flash the trunk's line/loop key and the Ring Indicator lamp.

Feature Operation

To answer a call flashing the Operator Call Key:

1. Press the flashing Operator Call Key.
This places your outside call on Hold and answers the waiting call.

Description



DS1000/2000

Available.



The attendant is the system's call processing focal point.

The attendant is the focal point for call processing within the system. The system can have up to four attendants. In addition to the features of a standard keyset, the attendant also has the following unique capabilities (refer to the respective feature for details):

- **Attendant Call Queuing** (page 35)
Incoming Intercom calls from co-workers queue for the attendant. The callers never hear busy tone.
- **Barge In (Intrusion)** (page 56)
The attendant can break into another extension user's established call. This option is enabled in the attendant's Class of Service (COS 1).
- **Direct Trunk Access** (page 191)
Direct Trunk Access lets the attendant user dial a code to access an individual trunk. This option is enabled in the attendant's Class of Service (COS 1).
- **Forced Trunk Disconnect** (page 271)
In an emergency, the attendant can release (disconnect) another user's active trunk call. This option is enabled in the attendant's Class of Service (COS 1).
- **Night Service / Night Ring** (page 389)
An attendant with a Night (System Mode System) key can put the system in the night mode. This option is enabled in the attendant's Class of Service (COS 1).
- **Removing Trunks and Extensions From Service** (page 457)
The attendant can remove problem trunks from service —then return them to service once the problem is corrected. This option is enabled because the attendant has Direct Trunk Access enabled in their Class of Service (COS 1).
- **Trunk (Line) Queuing / Trunk Callback** (page 569)
The attendant can Camp On (queue) for a busy trunk. This option is enabled in the attendant's Class of Service (COS 1).

The attendant should use a 34-Button Display or 34-Button Super Display Telephone. In addition, most attendants should find a 24-Button or 110-Button Direct Station Selection (DSS) Console helpful when processing calls.

Conditions

- Ringing Line Preference will not pick up a call ringing the attendant's Call Queue key.
- System operators will not ring for Ring Group calls.

Default Setting

The system has one operator assigned to extension 300.

Attendant Position

Programming Guide

Step-by-step guide for setting up Attendant Position (Page 1 of 2)

Step 1: Install a 34-Button Display or 34-Button Super Display telephone for the attendant.

- A 24-Button or 110-Button DSS Console will also help the attendant process calls more quickly.

Step 2: Should the system have more than one attendant?

If yes

- In *Program 0301 - Number of Operators* (page 635), enter 2-4 or press CLEAR (to undefine all operators).
- In *Program 0301 - Operator 1 Extension* (page 635), *Program 0301 - Operator 2 Extension* (page 635), *Program 0301 - Operator 3 Extension* (page 635), and *Program 0301 - Operator 4 Extension* (page 635), assign the operator extensions.
- In *Program 1802 - Extension's Operator* (page 760), assign an operator to each extension.

If No

- In *Program 0301 - Number of Operators* (page 635), enter 1 or press CLEAR (to undefine all operators).
- In *Program 0301 - Operator 1 Extension* (page 635), assign the system operator's extension (normally 300).
- In *Program 1802 - Extension's Operator* (page 760), assign each extension to the operator (normally 300).

Step 3: While busy on a call, should the attendant be audibly notified of incoming calls?

If yes

- *Program 1802 - Off-Hook Signaling for CO Calls* (page 759), at the attendant's extension enter 1 for Call Waiting beeps, 2 for off-hook ringing.

If No

- *Program 1802 - Off-Hook Signaling for CO Calls* (page 759), enter 0 for the attendant's extension.

Step-by-step guide for setting up Attendant Position (Page 2 of 2)

Step 4: Should the first digit an extension user dials to reach an operator be 0 (e.g., 0 for single operator systems, 01-04 for multiple operator systems)?

If yes

If no

- In *Program 0501 - Digit 0 Options* (page 671), be sure this option is left at its default setting (*Function Type* = 1 and *Expected Digits* = 2).
- In *Program 0501 - Digit 0 Options* (page 671), exchange the digit 0 settings with the new digit.
- Do not change the *Expected Digits* entry for the digit 0.

Programming List

Note: Designating an extension as an operator in Program 0301 automatically assigns Class of Service 01 to that extension. If you change your operator setup and make an operator a “normal” extension, be sure to go back and manually reassign a new Class of Service (2-15) to that extension. Note that the attendant’s Class of Service options are fully customizable.

Program 0301 - Number of Operators (page 635)

Specify the number of operators in the system (1-4) or press CLEAR (to undefine all operators)

Program 0301 - Operator 1 Extension (page 635)

Assign the 1st operator’s extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0301 - Operator 2 Extension (page 635)

Assign the 2nd operator’s extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0301 - Operator 3 Extension (page 635)

Assign the 3rd operator’s extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0301 - Operator 4 Extension (page 635)

Assign the 4th operator’s extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0501 - Digit 0 Options (page 671)

Assign the digit(s) the system will use for operator access (normally 0 and 01-04). Do not change the *Expected Digits* entry for the digit 0.

Program 1802 - Extension’s Operator (page 760)

Assign the extension’s operator (300-427 in DS2000, 300-333 in DS1000). This is the co-worker the extension user reaches when they dial 0.

Program 1802 - Off-Hook Signaling for CO Calls (page 759)

To have the system audibly alert the operator when trunk calls are waiting, assign an extension’s Off-Hook Signaling options for trunk calls (0 = no Off-Hook Signaling, 1 = Call Wait beeps over speaker, 2 = Off hook ringing).

Attendant Position

Other Related Features

Barge In (Intrusion) (page 56)

Since the attendant is never busy, Intercom callers cannot Barge In on an attendant.

Call Coverage Keys (page 59)

A Call Coverage Key will not pick up a call ringing the attendant's Operator Call Key.

Call Waiting / Camp-On (page 88)

Since the attendant is never busy, Intercom callers cannot Camp On to an attendant.

Callback (page 92)

Since the attendant is never busy, Intercom callers cannot leave a Callback for an attendant.

Class of Service (page 133)

By default, the system assigns Class of Service 1 to the attendant. This provides the attendant with Barge In, Call Forwarding Off Premise, Direct Trunk Access, Forced Trunk Disconnect, Night Service, and Trunk Queuing (Camp On) capability.

Do Not Disturb (page 220)

The attendant can have Do Not Disturb. In addition, pressing DND at the attendant activates the night mode for any trunks directly terminated to the attendant.

Door Box (page 226)

An operator can monitor a Door Box by having a Call Coverage key to monitor ringing and a Hotline key to call the Door Box.

Group Ring (page 279)

System operators will not ring for Ring Group calls.

Intercom (page 339)

Designate each extension's operator.

Monitor / Silent Monitor (page 378)

Since the attendant is never busy, Intercom callers cannot Monitor an attendant.

Privacy (page 435)

Since the attendant is never busy for Intercom calls, the attendant always has Privacy enabled.

Removing Trunks and Extensions From Service (page 457)

Normally, the attendant should be able to remove extensions and trunks from service.

Voice Mail (page 580)

- TRF transfers to the attendant from the Voice Mail Automated Attendant flash the Operator Call key and the Ring Indicator lamp. The call does not flash a line/loop key. (Note that Ringing Line Preference will not pick up a call ringing the attendant's Call Queue key.)
- UTRF transfers to the attendant from the Voice Mail Automated Attendant flash the trunk's line/loop key and the Ring Indicator lamp.



Voice Over (page 600)

An operator cannot receive a Voice Over from a co-worker since their extension is never busy to Intercom callers.



Feature Operation

To call the attendant:

1. Press **ICM**.

 Dial tone.
 **ICM** and **SPK** on.

2. Dial **0**.

 Two beeps.
 **ICM** and **SPK** on.

This calls the attendant assigned to your extension. If your system has multiple attendants, you can reach them by dialing 01-04.

Auto Redial

Description



DS1000/2000 Available.



Instead of redialing, have Auto Redial periodically retry a busy outside number.

Auto Redial periodically redials a busy outside number. If a keyset user places an outside call and the call recipient is busy, the user can press a soft key to enable Auto Redial. The keyset user doesn't have to retry the number, hoping it will go through.

Auto Redial will periodically retry the number up to 15 times. Auto Redial cancels when the called party rings or answers, or when the extension:

- Places or answers another outside call.
- Receives an Intercom voice announcement or answers an Intercom call by lifting the handset or pressing **SPK**.
- Presses **SPK** to cancel Auto Redial.
- Presses any other fixed feature key except **MIC**.
- Lifts and replaces the handset.
- Presses the **CANCEL** soft key (Super Display only).

For your reference, the following table shows the standard call progress tones.

Call Progress Tones		
Description	Frequencies	Rate
Dial tone	350 Hz + 440 Hz	Steady
Reorder (Fast Busy) tone	480 Hz + 620 Hz	250 mS on, 250 mS off (± 25 mS)
Busy tone	480 Hz + 620 Hz	500 mS on, 500 mS off (± 50 mS)
Audible ring tone (ring-back)	440 Hz + 880 Hz	800mS to 1.2 sec on, 2.7 sec to 3.3 sec off
Stutter dial tone	350 Hz + 440 Hz	800 mS to 1.2 sec on, 800mS to 1.2 sec off

Conditions

None

Default Setting

Enabled

Programming Guide

Step-by-step guide for setting up Auto Redial

Step 1: Is the interval between Auto Redial callout attempts the correct value?

If yes



- In *Program 0401 - Auto Redial Retry Timer* (page 645), leave the Auto Redial Retry Timer at its current setting.

If no



- In *Program 0401 - Auto Redial Retry Timer* (page 645), change the setting of the Auto Redial Retry Timer to meet the site requirements.

Step 2: Does the system wait the proper interval for busy tone when processing Auto Redial?

If yes



- In *Program 0401 - Auto Redial Busy Timer* (page 645), leave the Auto Redial Busy Timer at its current setting.

If no



- In *Program 0401 - Auto Redial Busy Timer* (page 645), change the setting of the Auto Redial Busy Timer to meet the site requirements.

Programming List

Program 0401 - Auto Redial Retry Timer (page 645)

Use this option to set the interval between Auto Redial callout attempts.

Program 0401 - Auto Redial Busy Timer (page 645)

This option sets how long the system waits for busy tone when processing an Auto Redial callout attempt. The interval is measured from the last digit dialed to the receipt of busy tone. If the system doesn't receive busy tone within this interval, it assumes that the call went through and cancels Auto Redial.

Other Related Features

Last Number Redial (page 351)

Last Number Redial allows an extension user to quickly redial the last outside number dialed.

Auto Redial

Feature Operation

To enable Auto Redial:

1. Place an outside call and receive busy tone + Press **AUTO REDIAL (ALND)** soft key.
OR
2. Press a line key + Press **AUTO REDIAL (ALND)** soft key.
The system enables Auto Redial for the last outside call you dialed.
3. At a 22-Button or 34-Button Display, you see:



```
WAITING (30 SEC)
AUTO REDIAL 1 OF 15
```

At a Super Display, you see:



```
WAITING (30 SEC)
AUTO REDIAL 1 OF 15
```

CANCEL

The display shows the interval between callout attempts (e.g., 30 seconds), as well as how many times redial has occurred (e.g., 1 of 15).

Your SPK key winks on to indicate your phone is in the Auto Redial mode.

4. The system periodically redials the call, up to 15 times, or until you:
 - Place or answer another outside call.
 - Receive an Intercom voice announcement or answer an Intercom call by lifting the handset or pressing **SPK**.
 - Press **SPK** to cancel Auto Redial.
 - Lift and replace the handset.
 - Press the **CANCEL** soft key (Super Display only).

If a Caller ID call rings while Auto Redial is enabled, your display will show the number and optional name of the incoming caller. However, the ringing does not cancel Auto Redial. In addition, the Auto Redial display will be restored after the Caller ID call stops ringing.

Description



DS1000/2000 || Available.



Automatic Handsfree is a convenience for workers who don't have a free hand to answer a call or use a feature.

Automatic Handsfree allows a keyset user to place or answer a call Handsfree by just pressing a key — without lifting the handset or pressing **SPK** first. If enabled, the system provides Automatic Handsfree for:

- Call Coverage Keys
- Central Office Calls (line and loop calls)
- Group Call Pickup keys
- Hotline Keys
- Intercom (**ICM** key)
- Last Number Redial (**LND** key)
- Paging keys
- Park keys
- Personal Speed Dial bin keys
- Personal and System Speed Dial keys

The system always provides Automatic Handsfree for:

- Dial Number Preview
- Directory Dialing

Conditions

None

Default Setting

Enabled

Automatic Handsfree

Programming Guide

Step-by-step guide for setting up Automatic Handsfree

Step 1: Should an extension be able to use Automatic Handsfree?

If yes

- In *Program 0201 - Automatic Handsfree* (page 628), enter Y to enable Automatic Handsfree system wide.
- In *Program 1802 - Automatic Handsfree* (page 759), enter Y to enable Automatic Handsfree for the extension.

If no

- In *Program 1802 - Automatic Handsfree* (page 759), enter N to enable Automatic Handsfree for the extension.

Step 2: Do you want to disable Automatic Handsfree for all extensions system-wide?

If yes

- In *Program 0201 - Automatic Handsfree* (page 628), enter Y to enable Automatic Handsfree for all extensions system-wide.

If no

- In *Program 0201 - Automatic Handsfree* (page 628), enter N to disable Automatic Handsfree for all extensions system-wide.

Programming List

- Program 0201 - Automatic Handsfree** (page 628)
Enter Y to enable Automatic Handsfree system-wide.
- Program 1802 - Automatic Handsfree** (page 759)
Enter Y to enable Automatic Handsfree.

Other Related Features

Central Office Calls, Placing (page 119)

With Automatic Handsfree, an extension user can press a line key to place a trunk call without first lifting the handset or pressing SPK. Users without Automatic Handsfree can preselect a line key before lifting the handset or pressing SPK.

Handsfree and Handsfree Answerback (page 287)

Process calls using the speaker and microphone in the telephone (instead of the handset).

Headset Compatibility (page 291)

While in the headset mode, Automatic Handsfree simplifies answering trunk calls.

Line Keys (page 356)

Automatic Handsfree allows the keyset user to answer a call ringing a line key without lifting the handset; they just press the line key instead.

Loop Keys (page 360)

Automatic Handsfree allows the keyset user to answer a call ringing a loop key without lifting the handset; they just press the loop key instead.

Feature Operation

If enabled, Automatic Handsfree operation is automatic when you press the key.

Automatic Ring Down

Description



DS1000/2000

Available. See *Ringdown Extension* on page 463.

Automatic Slot Configuration (DS2000)

Description

	DS1000	Not applicable.
	DS2000	Available



The system automatically installs PCBs when you power up the system.

When adding PCBs to your system, do not exceed the system's Load Factor capacity.

Automatic Slot Configuration automatically sets up station and trunk PCBs when you initially power up the system. This simplifies installation because you no longer have to use system programming to activate station and trunk PCBs after you plug them in.

Here's how Automatic Slot Configuration works:

- **With power off, install your station and trunk PCBs.**
With the system powered down, install the station and trunk PCBs from left to right in the order you want your extension and trunk numbers set up.
 - Be sure to install a 16DSTU PCB in the first slot (CN1).
 - You don't have to group your station and trunk PCBs together, although it may be more convenient to do so. For example, when setting up a 16x32 system, you can install the 2nd DSTU PCB and your two ATRU PCBs in any slot, in any order. Automatic Slot Configuration will properly handle the numbering.
- **Power up the system.**
On power up, the system scans the PCBs from left to right and sets up the extension and trunk numbering as follows.
 - Extension numbers will begin with 300 in the first slot and increment from left to right.
 - Trunk numbers will begin with 101 (starting from the first installed ATRU PCB) and will also increment from left to right.
 - For example, in a 16x32, the numbering will be:
1st 16DSTU PCB = Extensions 300-315.
2nd 16DSTU PCB = Extensions 316-331.
1st 8ATRU PCB = Trunks 101-108.
2nd 8ATRU PCB = Trunks 109-116.
 - The example below shows the initial 16x32 configuration on power up.

16x32 On Initial Power Up								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	16DSTU	8ATRU	8ATRU				
Numbers	Ext. 300-315	Ext. 316-331	Trunks 101-108	Trunks 109-116				

Note: System reset does not cause reconfiguration. Automatic Slot Configuration is temporarily disabled during a system reset.

Automatic Slot Configuration (DS2000)

Adds, Moves, and Changes

DS2000 can maintain a separate set of trunk and extension numbers for each slot. Put a 16DSTU PCB in slot CN2 and the system automatically recognizes keyset extensions 316-332. Pull out the 16DSTU PCB and insert an 8ATRU PCB and the system automatically sets up trunks 101-116. Put the 16DSTU back in and the digital stations work as before with all programming intact.

To add a new PCB to the system:

- Just plug it in “hot” (i.e., with power on). The system will automatically recognize the PCB and set up the next consecutive range of extension or trunk numbers. (Powering down the system, inserting the new PCB, and then powering up the system has the same affect as plugging the PCB in hot.)
- The example below shows an 8ASTU Analog Station PCB plugged into slot CN5, expanding the 16x32 system to 16x32x8.

Adding an 8ASTU PCB								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	16DSTU	8ATRU	8ATRU	8ASTU			
Numbers	Ext. 300-315	Ext. 316-331	Trunks 101-108	Trunks 109-116	Ext. 332-339			

To replace a trunk PCB with a station PCB (and visa-versa):

- With power on, unplug the PCB you want to remove and insert the new PCB in its place. The system will automatically recognize the new PCB and set up the next consecutive range of extension or trunk numbers.
- The example below shows the 8ASTU Analog Station PCB in slot CN5 removed and replaced by an 8ATRU PCB Analog Trunk PCB, changing the system to 24x32.

Replacing the 8ASTU PCB with an 8ATRU PCB								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	16DSTU	8ATRU	8ATRU	8ATRU			
Numbers	Ext. 300-315	Ext. 316-331	Trunks 101-108	Trunks 109-116	Trunks 117-124			

- If you change your mind, reverse the procedure and plug the original PCB back in. Since DS2000 can maintain a separate trunk and extension database for each slot, the system will automatically reinstate the initial extension or trunk numbers assigned to that PCB, and return all extension programming intact. To go back to 16x32x8, for example, unplug the 8ATRU PCB and replace it with the original 8ASTU PCB.

Automatic Slot Configuration (DS2000)

Adding PCBs of Different Capacities

When replacing a PCB with one of the same type that has a larger capacity, the system adds extensions or trunks to the end of the range. The example below shows an 8x32 system using two 4ATRU Analog Trunk PCBs.

8x32 On Initial Power Up								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	16DSTU	4ATRU	4ATRU				
Numbers	Ext. 300-315	Ext. 316-331	Trunks 101-104	Trunks 105-108				

To replace a PCB with one of larger capacity:

- With power on, remove the lower capacity PCB (e.g., the 4ATRU PCB in slot CN3) and insert the higher capacity PCB in its place.
- When you replace the 4ATRU Analog Trunk PCB in slot CN3 with an 8ATRU PCB, the system assigns trunks 109-112 to the last 4 circuits on the 8ATRU PCB.

Replacing a 4ATRU PCB with an 8ATRU PCB								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	16DSTU	8ATRU	4ATRU				
Numbers	Ext. 300-315	Ext. 316-331	Trunks 101-104 109-112	Trunks 105-108				

- To renumber the trunks consecutively, use **Program 9903 - Set Up Trunks (DS2000)** (page 803) to remove and then reinstall the two ATRU PCB. See *Expanded Database* on page 233 for an explanation of this program.

When replacing a PCB of smaller capacity:

- This can typically happen, for example, if you replace a 16DSTU Digital Station PCB with an 8ASTU or 4ASTU Analog Station PCB. You might want to do this if you have excess keyset capacity and need the ASTU PCB to support an analog voice mail.
- The last 4 circuits on the larger capacity PCB are no longer accessible after you install the smaller capacity PCB. To reconfigure the system and make those circuits available to another PCB, use **Program 9902 - Set Up Stations (DS2000)** (page 796) and **Program 9903 - Set Up Trunks (DS2000)** (page 803) to reconfigure the system. See *Expanded Database* on page 233 for an explanation of these programs.

Permanently Deinstalling PCBs

To permanently deinstall a PCB:

- Remove the PCB from the system.
- Use **Program 9902 - Set Up Stations (DS2000)** (page 796) and **Program 9903 - Set Up Trunks (DS2000)** (page 803) to permanently remove the PCB. See *Expanded Database* on page 233 for an explanation of these programs.
- Removing a card for troubleshooting purposes and reinserting it in the same slot won't cause a deinstall.

Automatic Slot Configuration (DS2000)

Renumbering Extensions and Trunks

If you add many extensions and trunks and then want to reorder your PCBs with consecutive extension and trunk numbers, you can use one of the following methods.

- **Reinitialize the System**
 - With power on, unplug all the station and trunk PCBs except for the 16DSTU PCB in cabinet slot CN1.
 - Use **Program 9999 - System Initialization** (page 822) to reinitialize the system.
 - Insert the PCBs from left to right in the order you want the circuits numbered.OR
Power down the system, plug the PCBs in, then turn the power back on to have the system automatically renumber circuits consecutively from left to right.
- Use **Program 9902 - Set Up Stations (DS2000)** (page 796) and **Program 9903 - Set Up Trunks (DS2000)** (page 803) to reconfigure the system.
 - See *Expanded Database* on page 233 for an explanation of these programs.

Conditions

None

Default Setting

Always enabled.

Programming Guide

None

Programming List

Program 9902 - Set Up Stations (DS2000) (page 796)

Set up DS2000 stations.

Program 9903 - Set Up Trunks (DS2000) (page 803)

Set up DS2000 trunks.

Other Related Features

Expanded Database (page 233)

Enables advanced features like Automatic Slot Configuration (DS2000) and IntraMail. The Expanded Database provides database records (memory) for all possible extensions, trunks, Hunt Groups, Ring Groups, and Voice Mail ports.

Feature Operation

None

Description



DS1000/2000 || Available.



Broadcast music through the telephone speaker for a more pleasing work environment.

Background Music (BGM) sends music from a customer-provided music source to speakers in key-sets. If an extension user activates it, BGM plays whenever the extension is idle. Incoming calls and Paging announcements temporarily override (turn off) Background Music.

Background Music requires a customer-provided music source. This source is also used by Music on Hold. In DS2000, you connect the music source to the CPU's 8-pin mod jack. In DS1000, you connect the music source to the Main Equipment Cabinet AUDIO jack. The music source you use must be compatible with the following specifications:

Table 3: Music Source Specifications	
Input Impedance	10K Ohms
Relative Input Level	+18 dBr (+/- dBr) at 1.0 kHz

For more on connecting a customer-provided music source, refer to the system's Hardware Manual.

Note:

In accordance with U.S. copyright law, a license may be required from the America Society of Composers, Authors and Publishers (ASCAP) or other similar organizations, if radio, television broadcasts or music other than material not in the public domain are transmitted through the Background Music feature of telecommunications systems. NEC Unified Solutions, Inc. hereby disclaims any liability arising out of the failure to obtain such a license.

Conditions

None

Default Setting

Enabled system-wide and at each extension.

Background Music

Programming Guide

Step-by-step guide for setting up Background Music

Step 1: Should Background Music be enabled system-wide?

If yes

- In *Program 0201 - Background Music* (page 629), enter Y to enable Background Music system-wide.
- Connect the music source to the CPRU music terminals.

If no

- In *Program 0201 - Background Music* (page 629), enter N to disable Background Music system-wide.

Step 2: Once enabled system-wide, should individual extension have Background Music?

If yes

- In *Program 1802 - BGM* (page 760), enter Y to enable Background Music for the extension.

If no

- In *Program 1802 - BGM* (page 760), enter N to disable Background Music for the extension.

Programming List

Program 0201 - Background Music (page 629)

Enter Y for this option to enable Background Music system-wide.

Program 1802 - BGM (page 760)

Enter Y to enable Background Music at the extension.

Other Related Features

Do Not Disturb (page 220)

DND does not affect the operation of Background Music.

Headset Compatibility (page 291)

Background Music plays in the headset when the extension is in the headset mode.

Music on Hold (page 381)

Background Music and Music on Hold share the same music source.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

Background Music is not available to On- and Off-Premise extensions.

Paging (page 409)

Background Music can broadcast over the External Paging speakers.

Feature Operation

To turn Background Music on and off:

1. Do not lift handset or press **SPK**.
2. Press **HOLD**.

Barge In (Intrusion)

Description



DS1000/2000 || Available.



In an emergency, use Barge In to get through to a co-worker right away.

Barge In permits an extension user to break into another extension user's established call. This sets up a three-way conversation between the intruding extension and the two parties on the initial call. The user can Barge In on an Intercom call or a trunk call.

!! CAUTION !!

Unauthorized intrusion on calls using this feature may be interpreted as an invasion of privacy.

Conditions

Barge-In uses a system Conference circuit. See *Conference* on page 142 for more.

Default Setting

Disabled

Programming Guide

Step-by-step guide for setting up Barge In

Step 1: Should an extension be able to Barge In on a co-worker's call?

If yes

- In *Program 0101 - Barge-In (Intrusion)* (page 617), enter Y to enable Barge In in the extension's Class of Service.
- In *Program 0101 - Privacy* (page 618), enter N to disable Privacy in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Barge-In (Intrusion)* (page 617), enter N to disable Barge In in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions

Programming List

Program 0101 - Barge-In (Intrusion) (page 617)

In an extension's Class of Service, enter Y to allow the extension to Barge In on another extension.

Program 0101 - Privacy (page 618)

In an extension's Class of Service, enter N to disable Privacy for the extension.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Attendant Position (page 37)

Since the attendant is never busy, Intercom callers cannot Barge In on an attendant.

Conference (page 142)

An extension user can Barge In on a Conference.

Forced Trunk Disconnect (page 271)





As an alternative to Barging In, disconnect the trunk instead.

Privacy (page 435)

Privacy blocks Barge In attempts.

Feature Operation

To Barge-In on a call:

1. Call busy extension.
OR
Press line key for busy trunk.
OR
Press **ICM** and dial 101 for busy trunk (i.e., using Direct Trunk Access).
OR
Press **ICM** and dial #901 for busy trunk (i.e., using Line Dial-up).
OR
Press **ICM** and dial Trunk Group access code (e.g., 9).
 || Busy tone.
 || N/A
2. Dial 4.
 || Two beeps.
 || N/A
3. Join the conversation in progress.

Battery Backup

Description



DS1000/2000 || Available.



The CPU PCB provides temporary backup of system memory and the time and date.

In the event of commercial AC power failure, the battery on the CPU PCB provides short-term backup of system memory and the system time and date (Real Time Clock). This battery will hold memory and time and date for up to 10-14 days. When commercial AC power is restored, the system restarts with all programming and the time and date intact.

Additional Battery Backup capability can be provided by a customer-supplied Uninterruptable Power Supply (UPS). The length of the time the UPS will power the system when power fails depends on the capacity of the UPS unit. Consult with the UPS manufacturer for the specifics. When sizing a UPS unit, keep in mind that a fully-loaded 4-slot cabinet requires 165 VA. Refer to the *Hardware Manual* for additional details.

Conditions

None

Default Setting

None

Programming List

None

Other Related Features

When commercial AC power fails, the CPU battery does not back up the status of the following:

- Call Forwarding
- Call Waiting / Camp On
- Do Not Disturb
- Message Waiting
- Microphone Mute
- Trunk Queuing

System Programming Backup and Restore (page 508)

You can use PC Card P/N 85880 or P/N 80050-V**,**,** (with system software preloaded) to back up and restore your site data.

Time and Date (page 546)

The battery on the CPU PCB backs up the CPU Real Time Clock for 10-14 days.

Feature Operation

If properly installed, Battery Backup is automatic during AC power failures and brownouts.

Description



DS1000/2000 Available.



Call Coverage keys allow an extension user to cover a co-worker's calls from their own telephone.

A keyset can have Call Coverage Keys for a co-worker's extensions, Ring Group master numbers and UCD group master numbers. The Call Coverage Key lights when the co-worker's extension is busy, flashes slowly when the co-worker has an incoming call, and flashes fast when the co-worker is in Do Not Disturb. The Call Coverage Key can ring immediately when a call comes into the covered extension, ring after a delay or not ring at all. In addition, the keyset user can press the Call Coverage Key to intercept their co-worker's incoming call. They can also go off hook and press the Call Coverage key to call the covered extension. An extension can have as many Call Coverage Keys as they have available Programmable keys on their telephone.

Call Coverage Key Busy Lamp Indications	
When the key is:	The covered extension is:
Off	Idle or not installed
On	Busy
Flashing slowly	Ringing
Flashing fast	In Do Not Disturb

Call Coverage Keys will intercept the following types of calls:

- Key Ring Calls
- Ringing Intercom calls

Call Coverage Guard Timer

The 4 second Call Coverage Guard Timer helps extensions that have the same Call Coverage key assignments. As soon as an extension user presses their Call Coverage key to answer a call, the key becomes unavailable for 4 seconds to all other extensions with that same key. (Users will hear reorder tone if they press their key before the 4 seconds expire.) This helps prevent users from inadvertently placing a call to the covered destination.

Conditions

None

Default Setting

No Call Coverage Keys assigned.

Call Coverage Keys

Programming Guide

Step-by-step guide for setting up Call Coverage Keys

Step 1: Should the Call Coverage key have Immediate Ring, No Ring or Delayed Ring?

Immediate Ring



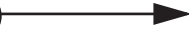
- For keysets, in *Program 1701 - Call Coverage Immediate Ring* (page 738), enter code 06 + the covered extension, Ring Group master number or UCD Group master number to assign an Immediate Ring Call Coverage Key.
- For DSS Consoles, in *Program 1704 - Call Coverage Immediate Ring* (page 747), enter code 06 + the covered extension, Ring Group master number or UCD Group master number to assign an Immediate Ring Call Coverage Key.

No Ring



- For keysets, in *Program 1701 - Call Coverage No Ring* (page 738), enter code 07 + the covered extension, Ring Group master number or UCD Group master number to assign a No Ring (lamp only) Call Coverage Key.
- For DSS Consoles, in *Program 1704 - Call Coverage No Ring* (page 747), enter code 07 + the covered extension, Ring Group master number or UCD Group master number to assign a No Ring (lamp only) Call Coverage Key.

Delay Ring



- For keysets, in *Program 1701 - Call Coverage Delay Ring* (page 738), enter 08 + the covered extension, Ring Group master number or UCD Group master number to assign a Delay Ring Call Coverage Key.
- For DSS Consoles, in *Program 1704 - Call Coverage Delay Ring* (page 748), enter 08 + the covered extension, Ring Group master number or UCD Group master number to assign a Delay Ring Call Coverage Key.
- In *Program 0403 - Call Coverage Delay* (page 656), enter the interval after which a Delay Ring Call Coverage Key begins to ring.

Programming List

Program 0403 - Call Coverage Delay (page 656)

For extensions with Delayed Ringing Call Coverage keys, set how long a call flashes the key at an extension before it starts to ring.

Program 1701 - Programmable Function Key Assignments (page 737)

Assign a programmable key on an extension as a Call Coverage Key (code 06 = immediate ring key, code 07 = no ring key, code 08 = delay ring key). The option is the covered extension (300-427 in DS2000, 300-333 in DS1000).

Program 1704 - DSS Console Key Assignment (page 746)

Assign a programmable key on an extension as a Call Coverage Key (code 06 = immediate ring key, code 07 = no ring key, code 08 = delay ring key). The option is the covered extension (300-427 in DS2000, 300-333 in DS1000).

Other Related Features

Attendant Position (page 37)

A Call Coverage Key will not pick up a call ringing the attendant's Call Queue Key.

Direct Station Selection (DSS) Console (page 180)

DSS Consoles can have Call Coverage keys.

Distinctive Ringing (page 200)

By using Key Ring Override, Distinctive Ringing allows an extension user to set up unique ringing for their Call Coverage keys.

Door Box (page 226)

If you enter Door Chime type 0 (normal ring) above, you can set up Call Coverage keys for the Door Box Ring Group. This allows extensions that are not members of the Ring Group to answer Door Box calls. Extensions with Call Coverage keys to the Door Box Ring Group can also activate the relay.

Extension Hunting (page 239)

A keyset can have Call Coverage keys for UCD Group master numbers. The group can be a normal UCD Group or a "dummy" group with no members.

Group Ring (page 279)

A keyset can have Call Coverage keys for Ring Group master numbers.

Hotline (page 302)

Hotline keys provide many of the features available with Call Coverage keys.

Intercom (page 339)

A user can press a Call Coverage Key as an alternative to dialing Intercom numbers.

Key Ring (page 344)

Call Coverage will pick up Key Ring calls.

Transfer (page 558)


An extension user can Transfer a call to the covered extension by pressing the Call Coverage key.

Voice Over (page 600)

After calling a co-worker by pressing their Call Coverage key, an extension user can dial 9 to leave a Voice Over (if enabled in programming).

Call Coverage Keys

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Programmable Function Key Ringing	#RA	<i>Call Coverage Keys: #RAC</i> + Call Coverage Key repeatedly to select ringing mode + SPK to exit. Call Coverage Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.	2-5



To answer a call ringing or flashing a Call Coverage Key:

-  (Optional) Ringing.
-  Slowly flashing Call Coverage Key.

1. Press flashing Call Coverage Key.

To place a call from an idle Call Coverage Key to the covered extension:

1. Press Call Coverage Key.

-  Two beeps.
-  Call Coverage Key lights green.

2. Speak with co-worker at the covered extension.

To Transfer your call using a Call Coverage Key:

You cannot Transfer Intercom calls.

1. Do not hang up.
2. Press your Call Coverage key.
3. Dial your co-worker's extension.

OR

Press a DSS key.

OR

Dial a Ring Group or UCD Hunting group master number.

4. Announce call to make a Screened Transfer.

OR

Press the flashing line key to return to the call if your co-worker doesn't want it (i.e., rejects your screen).

OR

Hang up to send the call through Unscreened.

The call will recall to you if unanswered at the destination extension. If you don't answer the recall, it diverts to Key Ring.

Description



DS1000/2000

In software version 03.10.08 and higher, Calls to a UCD Hunting Group *will not* follow Call Forwarding at a group member's extension.



Call Forwarding ensures that the user's calls are covered when they are away from their work area.

Call Forwarding permits an extension user to redirect their call to another extension. The types of Call Forwarding are:

- **Call Forwarding when Not Answered**
Calls ringing the extension forward when not answered.
- **Call Forwarding when Busy or Not Answered**
Calls ringing the extension forward when not answered, and all calls forward while the extension is busy.
- **Call Forwarding Immediate**
All calls to the extension forward immediately.

You can set up Call Forwarding to reroute all calls or just trunk calls. If an extension with forwarding set for trunk calls only receives a screened Transfer, the initial voice-announcement broadcasts at the extension. When the caller hangs up to complete the transfer, the trunk call forwards as programmed.

Call Forwarding Chaining

Extension user's can chain Call Forwards. For example, extension 301 can forward all calls immediately to 304, which in turn can forward all calls immediately to extension 302. Any co-worker calling 301 or 304 goes to 302 instead. If extension 302 is Call Forwarded to Voice Mail, callers to 301 or 304 go directly to 302's mailbox.

Call Forwarding Cancel

Call Forwarding cancel allows a keyset user to dial a code to simultaneously cancel all Call Forwarding system-wide. The extension must have access level 4 or 5 set up in **Program 1801 - Access Level** (page 755).

Call Forwarding Key

A keyset user can have a key on their telephone or DSS Console assigned as a Call Forwarding key.

- *While the extension is idle*, pressing the key puts the extension in the Call Forwarding programming mode - the same as pressing **ICM** and dialing ***3**.
 - If the extension has Call Forwarding enabled, and the user presses the key and waits (for at least 6 seconds), Call Forwarding is automatically cancelled.*
 - If the extension has Call Forwarding disabled, and the user presses the key and waits (for at least 6 seconds), the prior Call Forwarding mode is automatically enabled (if any).*

Call Forwarding

- While the extension is busy, pressing the key switches Call Forwarding on and off.

Call Forwarding Key BLF	
This flash rate:	Means:
Off	Call Forwarding is disabled.
Fast flash	The extension is in the Call Forwarding programming mode.
Wink off	Call Forwarding is enabled at the extension

Call Forwarding Toggle in a Personal Speed Dial Bin

If an extension doesn't have an available programmable key for a Call Forwarding key, the user can program a Personal Speed Dial bin for similar operation (without the BLF). To do this:

- While on hook, dial **#77**.
- Press the key for the Personal Speed Dial bin you want to program + **HOLD**.
- For **LINE/GRP/ICM**, press **ICM** + **HOLD**.
- For **NUM**, dial ***3** + **HOLD**.
- For **NA**, enter a name of your choosing + **HOLD**.
- Press **SPK** to exit.

While the extension is idle, pressing the bin key puts the extension in the Call Forwarding programming mode - the same as pressing **ICM** and dialing ***3**.

- If the extension has Call Forwarding enabled, and the user presses the bin key and waits (for at least 6 seconds), Call Forwarding is automatically cancelled.
- If the extension has Call Forwarding disabled, and the user presses the bin key and waits (for at least 6 seconds), the prior Call Forwarding mode is automatically enabled (if any).

Call Forwarding Confirmation Tone

Keypad users will hear a single confirmation beep after enabling or cancelling Call Forwarding. Single line telephone users will hear Intercom dial tone after enabling or cancelling Call Forwarding. In prior software versions, extension users would have no audible indication that they successfully completed the Call Forwarding steps.

Conditions

- An extension's Call Forwarding is reinstated after a power down or system reset. For example, an extension with calls forwarded immediately to Voice Mail will still be forwarded to Voice Mail after the system resets or is powered down and then powered back up.
- Note: The display **CFWD Not Allowed** indicates that an Call Forwarding is denied because it would set up an illegal Call Forwarding loop. For example, if extension 305 is forwarded to 301, and 301 attempts to forward to 305, the user at 305 would see the display **CFWD Not Allowed**.

Default Setting

Enabled

Programming Guide

Step-by-step guide for setting up Call Forwarding

Step 1: Should an extension be able to forward their calls to a co-worker?

If yes

- In *Program 0101 - Internal Call Forwarding* (page 617), enter Y to enable Call Forwarding.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Internal Call Forwarding* (page 617), enter N to disable Call Forwarding.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 2: When a user enables Ring No Answer forwarding, does an unanswered call ring the forwarding destination after the correct interval?

If yes

- In *Program 0403 - Call Forward Ring No Answer* (page 655), leave at the current setting.

If no

- In *Program 0403 - Call Forward Ring No Answer* (page 655), change the entry to meet the site's requirements.

Step 3: Should extension be allowed to use Call Forwarding Cancel?

If yes

- In *Program 1801 - Access Level* (page 755), assign access level 4 or 5 to the extension.

If no

- In *Program 1801 - Access Level* (page 755), assign access level 0-3 to the extension.

Step 4: Should extension have a Call Forwarding key?

If yes

- In *Program 1701 - Call Forwarding* (page 741), assign a programmable key as a Call Forwarding key (code 27).

If no

- In *Program 1701 - Call Forwarding* (page 741), do not assign a programmable key as a Call Forwarding key (code 27).

Call Forwarding

Step-by-step guide for setting up Call Forwarding

Step 5: Should extension's DSS Console have a Call Forwarding key?

If yes

- In *Program 1704 - Call Forwarding* (page 750), assign a key as a Call Forwarding key (code 27).

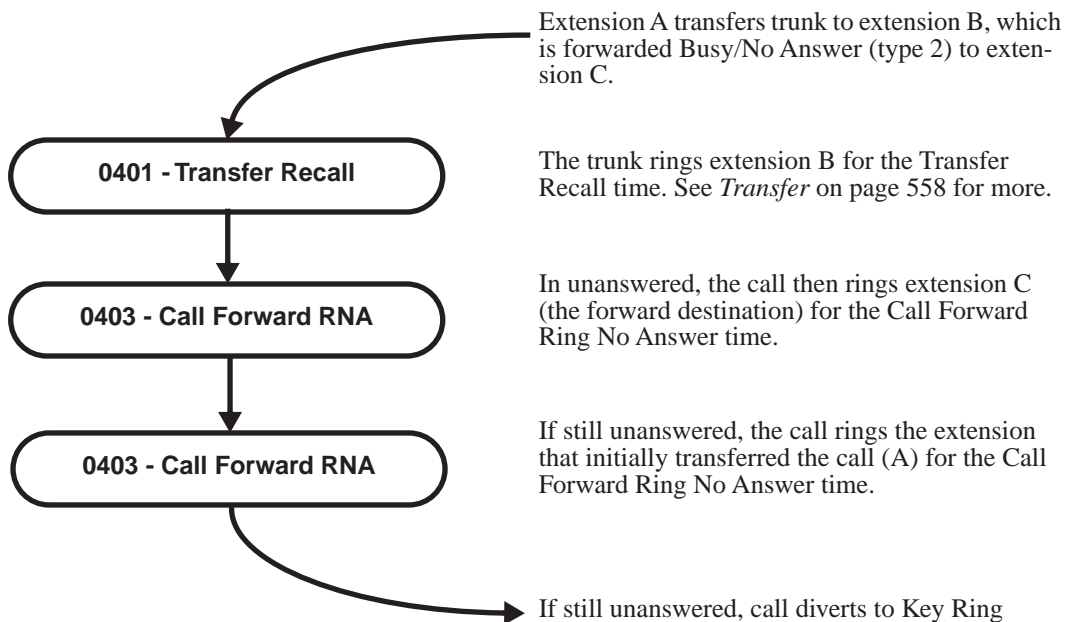
If no

- In *Program 1704 - Call Forwarding* (page 750), do not assign a key as a Call Forwarding key (code 27).

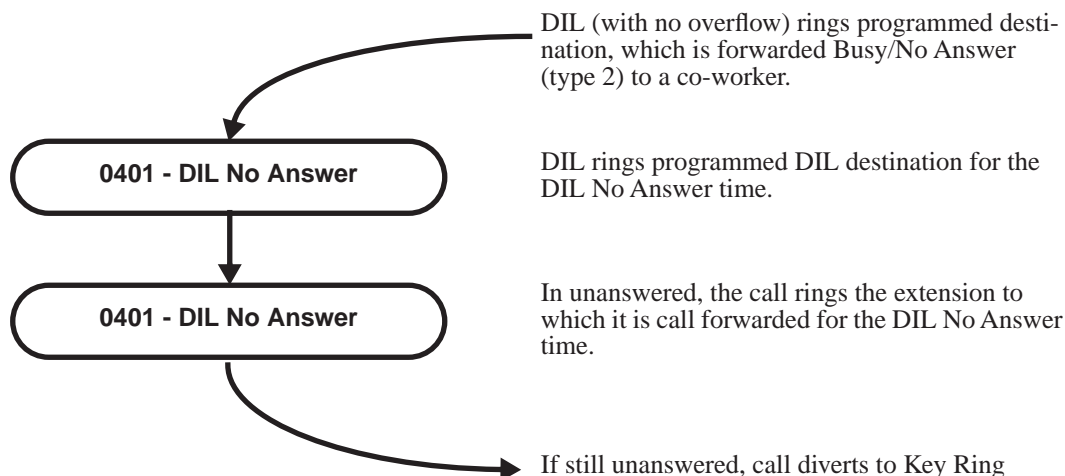
Call Forwarding Timers

The following diagrams show how the system implements various timers when handling forwarded calls.

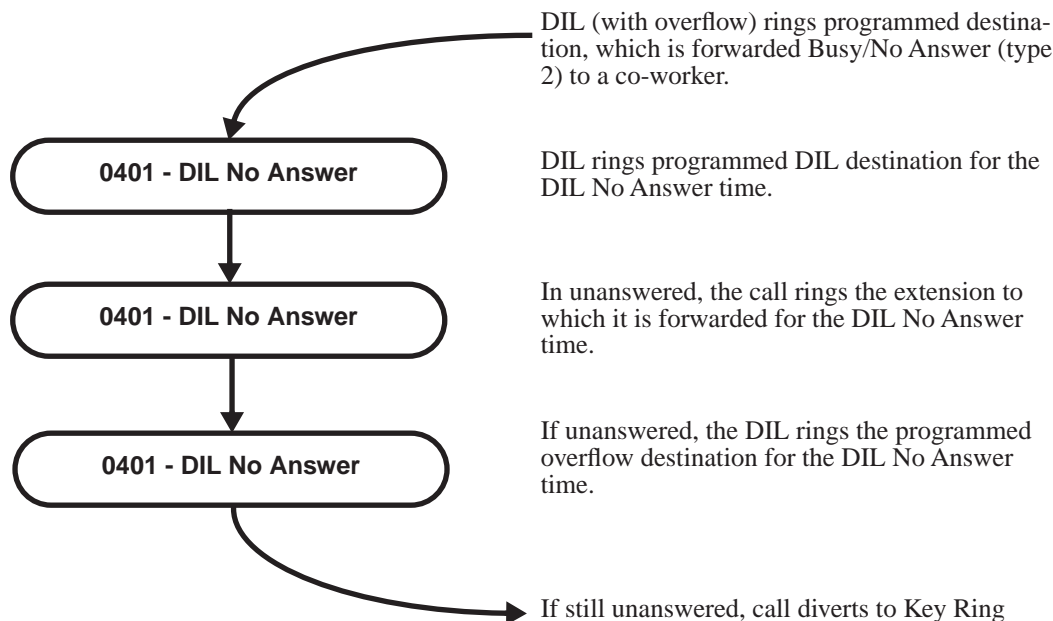
Transferred Trunk Call to Forwarded Extension



DIL (no overflow) to Forwarded Extension

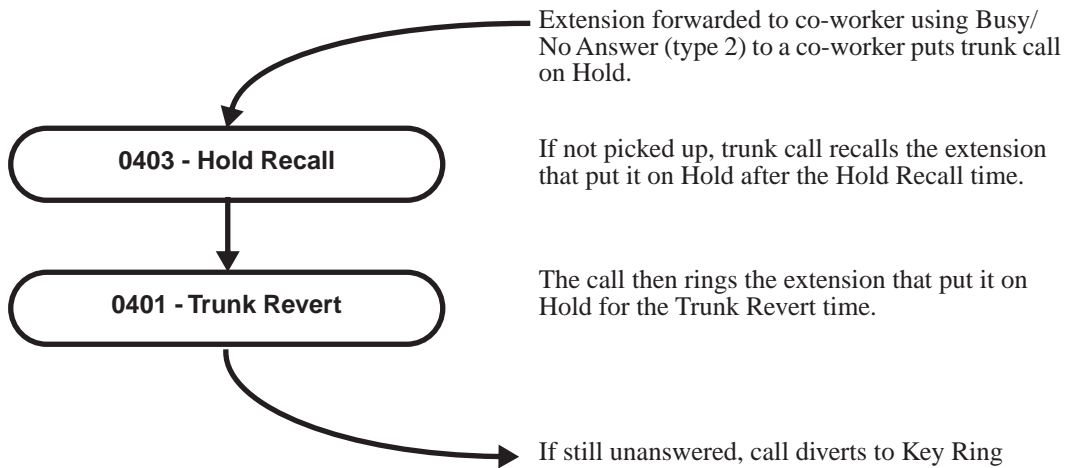


DIL (with overflow) to Forwarded Extension



Call Forwarding

Trunk Call on Hold at Forwarded Extension



Programming List

Program 0101 - Internal Call Forwarding (page 617)

In an extension's Class of Service, enter Y to enable internal Call Forwarding.

Program 0403 - Call Forward Ring No Answer (page 655)

For Call Forwarding Ring No Answer, set how long a forwarded call rings an unanswered extension before routing to the forwarding destination.

Program 1701 - Call Forwarding (page 741)

For keysets, assign a programmable key as a Call Forwarding key (code 27).

Program 1704 - Call Forwarding (page 750)

For DSS Consoles, assign a key as a Call Forwarding key (code 27).

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1801 - Access Level (page 755)

To use Call Forwarding Cancel, an extension must have access level 4 or 5.

Other Related Features

Call Coverage Keys (page 59)

Call Forwarding will not reroute a call ringing a Call Coverage Key.

Call Forwarding Off Premise (page 75)

Off Premise Call Forwarding allows a keyset user to forward their calls to an off-site location (such as a cell phone or remote office).

Direct Inward Line (page 170)

Call Forwarding will reroute Direct Inward Lines.

Do Not Disturb (page 220)

- Call Forwarding considers an extension in DND as busy. In addition, an extension can have both DND and Call Forwarding enabled at the same time.
- Note that Call Forwarding has priority over Do Not Disturb. If both are enabled simultaneously at an extension, Call Forwarding is in force.

Extension Hunting (page 239)

- If a member of a Circular or Terminal Hunting group forwards their calls, hunting will follow Call Forwarding.
- In software version 03.10.08 or higher, calls to a UCD Hunting Group *will not* follow Call Forwarding at a group member's extension. However, calls directed to the group member's extension (such as DILs and transferred calls) *will* follow the Call Forwarding set up at the extension. In software versions prior to 03.20.08, Call Forwarding at a group member's extension would pull a UCD call out of the group and send it to the programmed forwarding destination.

Group Ring (page 279)

Call Forwarding will not reroute Group Ring calls.

Intercom (page 339)

Call Forwarding when Busy and Call Forwarding when Busy/Not Answered will not reroute voice-announced Intercom calls. It will reroute only ringing Intercom calls.

Key Ring (page 344)

Call Forwarding will not reroute Key Ring calls.

Line Keys (page 356)

Call Forwarding will not reroute calls ringing line keys.

Loop Keys (page 360)

Call Forwarding will not reroute a call ringing a loop key (unless the call is a DIL).

Message Waiting (page 368)

- An extension user cannot leave a Message Waiting at an co-worker that has Call Forwarding Immediate (*34) enabled. Pressing MW automatically leaves a message at the forwarding destination instead.
- An extension user cannot leave a Message Waiting at a busy co-worker that has Call Forwarding Busy/No Answer (*32) enabled. Pressing MW will automatically leave a message at the forwarding destination instead.

Selectable Display Messaging (page 471)

Enabling or canceling Call Forwarding cancels an extension's Selectable Display Messaging.

Transfer (page 558)

- Call Forwarding will reroute transferred calls.
- When handling Transfer recalls, Call Forwarding has priority over Extension Hunting. See *Interaction Between Call Forwarding, Extension Hunting, and Transfer Recall* on page 560 for more.

Call Forwarding

Feature Operation

22-Button and 34-Button Display Telephone Operation

To activate Call Forwarding:

1. Press **ICM** and dial ***3**.
OR
Press **PGM** + **CFWD**.

```
Enter Call FWD type
IMM RNA BNA MORE
```

2. Dial **4** or press **IMM** for Call Forwarding Immediate. You see:

```
Enter DSS or EXT
Call FWD ALL CALL
```

OR

Dial **6** or press **RNA** for Call Forwarding No Answer. You see:

```
Enter DSS or EXT
Call FWD RNA
```

OR

Dial **2** or press **BNA** for Call Forwarding Busy/No Answer. You see:

```
Enter DSS or EXT
Call FWD RNA/BUSY
```

OR

Dial **3** or press **MORE** + **OFFP** for Off Premise Call Forwarding. (See Call Forwarding Off Premise in the *New Features* section for more.) You see:

```
CALL FWD OFF PREMISE
BIN NUM VIEW EXIT
```

OR

Dial **7** or press **MORE** + **AME** for Personal Answering Machine Emulation. (See Voice Mail in this section for more.) You see:

```
Enter FWD Option
ALL TRNK EXIT CNCL
```

OR

Dial **8** or press **MORE** + **MSG** to select a Selectable Display Message. (See Selectable Display Messaging in this section for more.)

```
PROGRAM MESSAGE
ENTER MESSAGE NUM:
```

3. Dial destination extension (or **0** for your operator).
OR
Dial the Voice Mail master number.
OR
Press **MW**.

```
Enter FWD Option
ALL TRNK EXIT CNCL
```

4. Select the Call Forwarding type:
 - Dial **2** or press **ALL** to forward all calls.
 - Dial **8** or press **TRNK** to forward just trunk calls.

*It is no longer necessary to press **SPK** to hang up.*

To cancel Call Forwarding

1. Press **ICM** and dial ***3**.
OR
Press **CLEAR + PGM + CFWD**. You see:

```
Select Call FWD type
NONE EXIT MORE
```

2. Dial **0**, press **CLEAR**, or press **NONE** to cancel forwarding.
*It is no longer necessary to press **SPK** to hang up.*
3. Call Forwarding is cancelled.

Call Forwarding

Super Display Telephone Operation

To activate Call Forwarding:

1. Press **ICM** and dial ***3**.
OR
Press **PROGRAM + CALL FWRD**.

```
Enter Call FWD type
IMMEDIATE          NONE
RING/NO ANS
BUSY/NO ANS
OFF-PREMISE
ANS MACHINE
MESSAGE           EXIT
```

2. Dial **4** or press **IMMEDIATE** for Call Forwarding Immediate. You see:

```
Enter DSS or EXT
Call FWD All Call
```

OR

- Dial **6** or press **RING/NO ANS** for Call Forwarding No Answer. You see:

```
Enter DSS or EXT
Call FWD RNA
```

OR

- Dial **2** or press **BUSY/NO ANS** for Call Forwarding Busy/No Answer. You see:

```
Enter DSS or EXT
Call FWD RNA/BUSY
```

OR

- Dial **3** or press **OFF-PREMISE** for Off Premise Call Forwarding. (See Call Forwarding Off

Premise in the *New Features* section for more.) You see:

```
CALL FWD OFF PREMISE

SPEED DIAL BIN
NUMBER
VIEW

EXIT
```

OR

Dial **7** or press **ANS MACHINE** for Personal Answering Machine Emulation. (See Voice Mail in this section for more.) You see:

```
Enter FWD Option

ALL          TRUNK ONLY

CANCEL          EXIT
```

OR

Dial **8** or press **MESSAGE** to select a Selectable Display Message. (See Selectable Display Messaging in this section for more.)

```
PROGRAM MESSAGE
ENTER MESSAGE NUM:
```

3. Dial destination extension (or **0** for your operator).

OR

Dial the Voice Mail master number.

OR

Press **MW**.

```
Enter FWD Option

ALL          TRUNK ONLY

CANCEL          EXIT
```

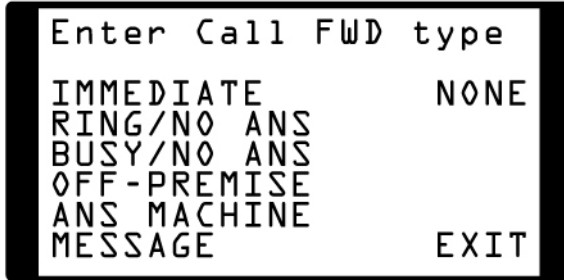
4. Select the Call Forwarding type:
- Dial **2** or press **ALL** to forward all calls.

Call Forwarding

- Dial **8** or press **TRUNK ONLY** to forward just trunk calls.
*It is no longer necessary to press **SPK** to hang up.*

To cancel Call Forwarding

1. Press **ICM** and dial ***3**.
OR
Press **PROGRAM + CALL FWRD**. You see:

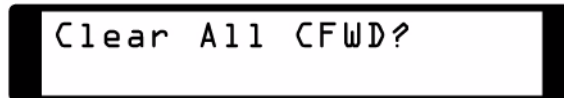


2. Dial **0**.
OR
Press **NONE**.
OR
Press **CLEAR**.
*It is no longer necessary to press **SPK** to hang up.*
3. Call Forwarding is cancelled.

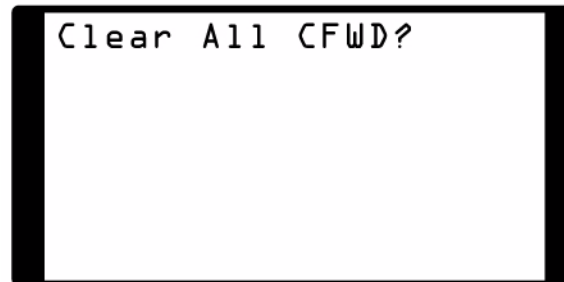
Canceling Call Forwarding System-Wide

To cancel all Call Forwarding system-wide:

1. Do not lift the handset, do not press **SPK**, and do not press **ICM**.
2. Dial **# + CC (22)**.
At a 22- or 34-Button Display Telephone, you see:



At a Super Display Telephone, you see:



3. Dial **Y (9)** to cancel forwarding.
OR
Dial **N (6)** to exit this procedure without canceling.

Description



DS1000/2000 Available.



When a user is out of the office, they can send their calls to their home office or cell phone.

Off Premise Call Forwarding allows a keyset user to forward their calls to an off-site location (such as a cell phone or remote office) if allowed by their Class of Service. Keyset users can stay in touch by having Off Premise Call Forwarding automatically forward their calls while they are away from the office. To set up Off Premise Call Forwarding, the user selects the trunk or trunk group over which the call should route, as well as the number the system should dial. The number dialed can be from an extension's Personal Speed Dial bin containing an outside number, or the user can enter an outside number directly into their Personal Speed Dial bin 720. When a call rings the forwarded extension, the system selects the specified trunk or group and then outdials the stored number.

Off Premise Call Forwarding reroutes:

- Intercom calls
- Transferred calls
- Direct Inward Lines
- UTRF (unscreened transfer) calls routed from the Voice Mail Automated Attendant
- Circular and Terminal Extension Hunting calls

Off Premise Call Forwarding does not reroute:

- Key Ring calls
- Calls to a UCD Group master number.
- Group Ring calls (i.e., calls to a Ring Group master number)
- UCD Hunting Calls (i.e., calls to a UCD master number)
- Ringing Call Coverage key calls

You can set up Off Premise Call Forwarding to reroute all calls or just trunk calls. If an extension with forwarding set for trunk calls only receives a screened Transfer, the initial voice-announcement broadcasts at the extension. When the caller hangs up to complete the transfer, the trunk call forwards as programmed.

Call Forwarding Off Premise Example

Call Routes to Emergency Service Number After Hours

A service department dispatcher has Key Ring for trunks 1-4 during the day. The dispatcher answers calls on those lines and assigns dispatchers accordingly. At night, the calls on trunks 1-4 must automatically route to the technician on call for emergency service. To do this:

1. In **Program 1003 - Direct Termination (Day)** (page 712), make sure trunks 1-4 are assigned as Key Ring trunks (by pressing CLEAR).
2. In **Program 1003 - Direct Termination (Night)** (page 713), terminate trunks 1-4 directly to the dispatcher's extension (e.g., extension 300).
3. At the dispatcher's extension, program a Personal Speed Dial bin for each technician that is qualified to take emergency calls.
4. At the end of the day, the dispatcher presses their Night (System Mode System) Key (normally key 11) to put the system in the night mode.

Call Forwarding Off Premise

5. After enabling the night mode, the dispatcher implements Off Premise Call Forwarding to whichever Speed Dial bin represents the technician on call for that evening.
6. Calls ringing trunks 1-4 at night automatically route to the technician on call.

Conditions

- ***Telco must provide Loop Disconnect Supervision on the originating trunk (i.e., the trunk that Off Premise Call Forwarding will reroute).***
- All other Speed Dial programming also applies to Off Premise Call Forwarding.
- An extension Speed Dial number stored in bin 719 should not be longer than 16 digits. If it is, the system automatically clears bin 719 when it stores an Off Premise Call Forwarding number in bin 720.
- An extension user cannot off premise call forward to a Personal Speed Dial bin that contains an Intercom number. If the user selects a bin that contains an Intercom number, the system cancels Off Premise Call Forwarding.
- Off Premise Call Forwarding is cleared after a system reset or power down.
- If a trunk rings an off-premise forwarded extension and the specified outbound route is busy, the system reroutes the call to the programmed overflow destination (normally Key Ring). Intercom callers will hear busy tone if the outbound route is busy, and have the option of dialing 2 for Trunk Queuing or Trunk Callback.
- ***Tandem Trunking must be enabled for the originating trunk (i.e., the trunk that Off Premise Call Forwarding will reroute).***
 - If a screened Transfer is made to an extension with Trunk Only forwarding, and Tandem Trunking is not enabled for the originating trunk, the transferred trunk immediately goes to Key Ring when the transferring party hangs up.*
 - If a screened Transfer is made to an extension with All Calls forwarding, and Tandem Trunking is not enabled for the originating trunk, the transferred trunk will stay at the transferring extension when that party hangs up.*
- Off Premise Call Forwarding is not available at single line telephones.

Default Setting

- Call Forwarding Off Premise is disabled in an extension's Class of Service.
- Tandem Trunking is disabled for trunks.

Call Forwarding Off Premise

Programming Guide

Step-by-step guide for setting up Call Forwarding Off Premise

Step 1: Should extension be able to use Call Forwarding Off Premise?

If yes

- In *Program 0101 - Off Premise Call Forward* (page 617), enable Off Premise Call Forwarding in the extension's Class of Service.
- In *Program 0101 - Internal Call Forwarding* (page 617), enable internal Call Forwarding in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- In *Program 1802 - Speed Dial Block* (page 761), assign a Speed Dial block to an extension. **If the extension does not have a block assigned, it cannot use Call Forwarding Off Premise.**

If no

- In *Program 0101 - Off Premise Call Forward* (page 617), disable Off Premise Call Forwarding in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 2: Do you want Call Forwarding Off Premise to reroute incoming trunk calls?

If yes

- In *Program 1003 - Tandem Trunk* (page 714), enable Tandem Trunking for the originating trunk(s).

If no

- In *Program 1003 - Tandem Trunk* (page 714), disable Tandem Trunking for the originating trunk(s).

Step 3: Do you want to enter Personal Speed Dial bins from the system program for extensions to use with Call Forwarding Off Premise?

If yes

- In *Program 1702 - Personal Speed Dial* on page 743, enter Personal Speed Dial numbers for an extension. (You cannot use Intercom Speed Dials for Call Forwarding Off Premise.)

If no

- Skip this step.

Call Forwarding Off Premise

Programming List

Program 0101 - Off Premise Call Forward (page 617)

Use this option to enable (Y) or disable (N) an extension's ability to use Off Premise Call Forwarding. When disabled, the Off Premise Call Forwarding option is hidden on the telephone display.

Program 0101 - Internal Call Forwarding (page 617)

Use this option to enable (Y) or disable (N) an extension's ability to use Call Forwarding. *If an extension cannot use Call Forwarding, they cannot also use Off Premise Call Forwarding.*

Program 1003 - Tandem Trunk (page 714)

Enable (Y) Tandem Trunking for trunks if Off Premise Call Forwarding should be able to route incoming trunk calls to an off-premise location. *The originating trunk (i.e., the trunk that Off Premise Call Forwarding will reroute) must have this option enabled.* If enabled, the system can forward an incoming trunk call over a second trunk to an off-premise number. If disabled, trunk-to-trunk forwarding cannot occur. This option is not required when the system is forwarding Intercom calls off-premise.

When this option is disabled (N), the system will immediately route a trunk ringing an OPX Call Forwarded extension to Key Ring. It will not attempt to reroute the call.

Program 1702 - Personal Speed Dial (page 743)

You can optionally enter Personal Speed Dial numbers from the system program. The Personal Speed Dial number you enter for Off Premise Call Forwarding must contain a trunk or trunk group route. You cannot select Intercom Speed Dials for Off Premise Call Forwarding.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1802 - Speed Dial Block (page 761)

Assign a Speed Dial block (1-62) to an extension. *If the extension does not have a block assigned, it cannot use Off Premise Call Forwarding.* If the extension does not have a Speed Dial block assigned, the Call Forwarding Off Premise option is not available (i.e., is hidden on the display).

Other Related Features

Call Forwarding (page 63)

Call Forwarding permits an extension user to redirect their call to another extension.

Feature Operation

22-Button and 34-Button Display Telephone Operation

To set up Call Forwarding Off Premise:

1. Press the **ICM** key and dial ***3**.
OR
Press **PGM** + **CFWD**. You see:

```
Enter Call FWD type
IMM RNA BNA MORE
```

2. Dial **3** and skip to step 5.
OR
Press **MORE**. You see:

```
Enter Call FWD type
OFFP AME MSG MORE
```

3. Press **OFFP**.
4. You see:

```
CALL FWD OFF PREMISE
BIN NUM VIEW EXIT
```

- Press **BIN** to select a Speed Dial bin as your Off Premise Call Forwarding number.
- Press **NUM** to store a new Off Premise Call Forwarding number (automatically in bin 720).
- Press **VIEW** to view the currently enabled Off Premise Call Forwarding number (if any).

5. If you press **BIN** to store the number in a Speed Dial bin, you see:

```
CALL FWD OFF PREMISE
BIN#?
```

- Select the Speed Dial bin (dial 701-720 or press the bin key) you want to use + **HOLD** to exit.
OR

If you press **NUM** to store a new number (automatically in Speed Dial bin 720), you see:

```
CFWD OFF-PREM DEST?
LINE/GRP/ICM:
```

- Enter the trunk number (e.g., 1 for trunk 1), trunk group number (e.g., 90 for group 0), or **ICM** to store Intercom codes + **HOLD**.
- Following Speed Dial programming methods, enter the number you want to store (up to 16 digits long, including **MIC** to store a pause and **FLASH** to store a Flash) + **HOLD** to exit.
- You cannot enter a name using this option.
- If you already have a number stored in bin 20, you see:

```
720:IN USE OVERRIDE?
YES NO
```

- Press **Yes** to enter a new number or **No** to back up to step 4.
OR

Call Forwarding Off Premise

If you pressed **VIEW** to view your currently stored number, you see:

```
CALL FWD OFF PREMISE
720:12039265400
```

- Press **SPK** to exit the **VIEW** mode.

6. You see:

```
Enter FWD Option
ALL TRNK EXIT CNCL
```

7. Select the Call Forwarding type:

- Dial **2** or press **ALL** to forward all calls.

- Dial **8** or press **TRNK** to forward just trunk calls.

8. Once returning to idle, your telephone display will show:

```
11-9 FRI 11:10AM
FWD OFP>>12039265400
```

- **FWD OFP** indicates that Off Premise Call Forwarding is enabled, followed by the number.

- If you selected a Speed Dial bin with a stored name, the name will display instead.

To cancel Call Forwarding Off Premise:

1. Press the **ICM** key and dial ***3**.

OR

Press **CLEAR** + **PGM** + **CFWD**. You see:

```
Select Call FWD type
NONE          EXIT MORE
```

2. Press **NONE**.

OR

Dial **0**.

OR

Press **CLEAR**.

3. Off Premise Call Forwarding is cancelled.

Call Forwarding Off Premise

22-Button Non-Display Telephone Operation

It is *strongly recommended* that you use a display telephone when setting up Off Premise Call Forwarding. If you don't have a display telephone, the following procedure explains how you can use a 22-button non-display set to enable Off Premise Call Forwarding.

To set up Call Forwarding Off Premise:

1. Program the number you want Call Forwarding Off Premise to dial into one of your Personal Speed Dial bins (701-720).

*You **must** do this before proceeding to step 2 below.*

For example, the following sequence programs the number 12039265400 with the name NEC to go out over trunk group 90:

#77 + 701 + HOLD + 90 + HOLD + 12039265400 + HOLD + 62 + 32 + 23 + HOLD + SPK.

2. Press the **ICM** key and dial ***33**.
3. Dial **2** and enter the Personal Speed bin number you programmed in step 1 above + **HOLD**.
4. Select the Call Forwarding type:
 - Dial **2** or press **ALL** to forward all calls.
 - Dial **8** or press **TRNK** to forward just trunk calls.*Your **DND** key flashes.*

To cancel Call Forwarding Off Premise:

- Press the **ICM** key and dial ***30**.
*Your **DND** key goes out.*

Call Forwarding Off Premise

Super Display Telephone Operation

To set up Call Forwarding Off Premise:

1. Press the **ICM** key and dial ***3**
OR
Press **PROGRAM + CALL FWRD**. You see:

```
Enter Call FWD type
IMMEDIATE          NONE
RING/NO ANS
BUSY/NO ANS
OFF-PREMISE
ANS MACHINE
MESSAGE           EXIT
```

2. Dial **3** or press **OFF-PREMISE**. You see:

```
CALL FWD OFF PREMISE
SPEED DIAL BIN
NUMBER
VIEW
EXIT
```

- Press **SPEED DIAL BIN** to select a Speed Dial bin as your Off Premise Call Forwarding number.
 - Press **NUMBER** to store a new Off Premise Call Forwarding number (automatically in bin 720).
 - Press **VIEW** to view the currently enabled Off Premise Call Forwarding number (if any).
3. If you press **SPEED DIAL BIN** to store the number in a Speed Dial bin, you see:

```
CALL FWD OFF PREMISE
BIN#
```

- Select the Speed Dial bin (701-720) you want to use + **HOLD** to exit.
OR

Call Forwarding Off Premise

If you press **NUMBER** to store a new number (automatically in Speed Dial bin 720), you see:

```
CFWD OFF-PREM DEST?  
LINE/GRP/ICM:
```

- Enter the trunk number (e.g., 1 for trunk 1), trunk group number (e.g., 90 for group 0), or **ICM** to store Intercom codes + **HOLD**.
- Following Speed Dial programming methods, enter the number you want to store (up to 16 digits long, including **MIC** to store a pause and **FLASH** to store a Flash) + **HOLD** to exit.
- You cannot enter a name using this option.
- If you already have a number stored in bin 20, you see:

```
720:IN USE OVERRIDE  
YES NO
```

- Press **Yes** to enter a new number or **No** to back up to step 3.
- OR

If you pressed **VIEW** to view your currently stored number, you see:

```
CALL FWD OFF PREMISE  
720:12039265400
```

- Press **SPK** to exit the **VIEW** mode.

4. You see:

```
Enter FWD Option  
ALL TRUNK ONLY  
CANCEL EXIT
```

5. Select the Call Forwarding type:
- Dial **2** or press **ALL** to forward all calls.

Call Forwarding Off Premise

- Dial **8** or press **TRUNK ONLY** to forward just trunk calls.

6. Once returning to idle, your telephone display will show:

```
11-9  FRI 11:10AM
FWD OFP>>12039265400
DIRECTORY
PROGRAM
V-MAIL 00
CALLS 00    SP DIAL 1
PAGE       SP DIAL 2
```

- **FWD OFP** indicates that Off Premise Call Forwarding is enabled, followed by the number.

- If you selected a Speed Dial bin with a stored name, the name will display instead.

To cancel Call Forwarding Off Premise:

1. Press the **ICM** key and dial ***3**
OR
Press **PROGRAM + CALL FWRD**. You see:

```
Enter Call FWD type
IMMEDIATE          NONE
RING/NO ANS
BUSY/NO ANS
OFF-PREMISE
ANS MACHINE
MESSAGE           EXIT
```

2. Press **NONE**.
OR
Dial **0**.
OR
Press **CLEAR**.
3. Off Premise Call Forwarding is cancelled.

Description



DS1000/2000 || Available.



Call Timer helps users that must keep track of their time on the phone.

Call Timer lets a keyset user with a Call Timer key time their trunk calls on the telephone display. There are two types of Call Timer keys:

- **Manual Call Timer**
Any time while placing a call or while on a call, a display keyset user can press their Manual Call Timer key to start the Call Timer. The Call Timer will continue until the user hangs up or presses their Manual Call Timer key again.
- **Automatic Call Timer**
In addition to the features of the Manual Call Timer key, the Automatic Call Timer key provides automatic timing for trunk calls. When a display keyset with an Automatic Call Timer key places or answers a trunk call, the Call Timer automatically starts when that trunk call connects. The Automatic Call Timer does not automatically start for Intercom calls. The Automatic Call Timer can also work like a Manual Call Timer key. There is no need to have a Manual and Automatic Call Timer key on the same phone.

The Call Timer feature also provides:

- **Review of Previously Timed Call**
Any time after hanging up from a timed call, a display keyset user can press their Manual or Automatic Call Timer key to review the duration of that call.
- **Timer Reset for Current Call**
While the display keyset user is timing their call, they can press CLEAR at any time to reset the Call Timer to 00:00:00.
- **Automatic Timer Stop**
The system assigns the Call Timer to the active call. When the user terminates the active call, the Call Timer automatically shuts down.
- **Wrap-up Timer Display**
After hanging up a timed call, a display keyset will show the Call Timer data for 6 seconds before returning the display to idle. This gives the extension user adequate time to make a record of the timed call, if desired.

Conditions

None

Default Setting

No Call Timer keys assigned.

Call Timer

Programming Guide

Step-by-step guide for setting up Call Timer

Step 1: Should extension have a Manual Call Timer key?

If yes

- In *Program 1701 - Call Timer Key* (page 739), assign a Manual Call Timer key (code 16 + 1). Make sure you do not also have an Automatic Call Timer key assigned (code 16 + 2).

If no

- In *Program 1701 - Call Timer Key* (page 739), make sure the extension does not have a Manual Call Timer key assigned (code 16 + 1).

Step 2: Should extension have an Automatic Call Timer key?

If yes

- In *Program 1701 - Call Timer Key* (page 739), assign an Automatic Call Timer key (code 16 + 2). Make sure you do not also have a Manual Call Timer key assigned (code 16 + 1).

If no

- In *Program 1701 - Call Timer Key* (page 739), make sure the extension does not have an Automatic Call Timer key assigned (code 16 + 2).

Programming List

Program 1701 - Call Timer Key (page 739)

Assign a programmable key on an extension as a Call Timer key (code 16). The options are manual (1) and automatic (2).

Other Related Features

Caller ID (page 95)

The Auto Timer feature interacts with Caller ID on the first line of the telephone display.

Central Office Calls, Placing (page 119)

Call Timer shows the time a user has been on a trunk call.

Flash (page 264)

Flash restarts the Call Timer.

Hold (page 296)

A user's Call Timer starts when they pick up a call from Hold. If they place the call on Hold and another user picks it up, the timer restarts for the new user.

Station Message Detail Recording (page 498)

The SMDR report also keeps track of the time on a call.

Feature Operation

To time your trunk call if you have an Automatic Call Timer key:

- Place or answer trunk call.
The Call Timer starts automatically. The Automatic Call Timer key lights red while the system times the call.

To manually time your Intercom or trunk call:

- While placing or while on the call, press the Manual or Automatic Call Timer key.
the Call Timer key lights red while the system times the call.

To stop the Call Timer:

- Hang up.
The timer automatically stops after 6 seconds.
OR
- Press the Manual or Automatic Call Timer key.
To restart the timer, press CLEAR.

To reset the Call Timer to 00:00:00 while it is running (i.e., timing your call):

- Press CLEAR.

To review the duration of your last timed call:

- While idle, press the Manual or Automatic Call Timer key.
Press CLEAR or wait 6 seconds to return to idle Time/Date display.

Call Waiting / Camp-On

Description



DS1000/2000

Available.



Call Waiting helps busy extension users know when they have additional waiting calls. It also lets callers wait in line for a busy extension without being forgotten.

With Call Waiting, an extension user may call a busy extension and wait in line (Camp-On) without hanging up. When the user Camps-On (by dialing 2), the system signals the busy extension with two beeps indicating the first waiting call. (The busy extension can be on a handset or Handsfree call.) The call goes through when the extension becomes free.

If an extension has more than one caller waiting, they queue on a first-in/first-out basis (FIFO). The extension will not hear Camp-On beeps for additional waiting calls.

Off-Hook Signaling also alerts the user when unanswered calls are waiting to get through. Turn to *Off-Hook Signaling* on page 394 for more.

The following chart shows when the two types of Off-Hook Signaling occur. Note that Camp-On tones occur for an extension when they are the exclusive recipient of the call (such as a DIL).

	Off-Hook Ringing ¹	Camp-On Tones ²
Key Ring	Yes	No
Transferred Trunk Call	Yes	Yes
Direct Inward Line	Yes	Yes
Transfer from Voice Mail (UTRF)	Yes	Yes
Call Coverage Key	Yes	No
Group Call Pickup Key	Yes	No

¹ For Off-Hook ringing, **1802 - Off-Hook Signaling for CO Calls = 2.**
² For Camp-On tones, **1802 - Off-Hook Signaling for CO Calls = 1.**

Conditions

- A system reset or power failure cancels all Camp-Ons system wide.
- While busy on a call, Camp-On tones occur only for the first incoming call and do not repeat.

Default Setting

Call Waiting tones enabled.

Programming Guide

Step-by-step guide for setting up Call Waiting / Camp-On

Step 1: Should extension be able to Camp On to a busy co-worker?

If yes

- In *Program 0101 - Camp-On to Busy Extension* (page 617), enter Y in each Class of Service that should allow users to Camp-On to a busy extension.
- In *Program 0101 - Privacy* (page 618), be sure Privacy is disabled at the destination extension (N).
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- Assign Class of Service (1-15) to extensions.

If no

- In *Program 0101 - Camp-On to Busy Extension* (page 617), enter N in each Class of Service that should prevent users from Camping-on to a busy extension. Entering N automatically converts an extension's Camp On to Callback.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 2: Should an extension hear Camp-On tones when a co-worker camps-on to their extension?

If yes

- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 628), enter Y to enable Camp-On tones system-wide.
- In *Program 0403 - Call Waiting Tone Interval* (page 655), set the interval between Camp-On tones.
- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 758), enter 1.

If no

- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 628), enter N to disable Camp-On tones system-wide.

Call Waiting / Camp-On

Programming List

Program 0101 - Camp-On to Busy Extension (page 617)

In an extension's Class of Service, enter Y to allow the extension to Camp-On to a busy co-worker. Enter N to prevent the extension from Camp-On to a busy co-worker. Entering N also automatically converts an extension's Camp On to Callback.

Program 0101 - Privacy (page 618)

An extension with Privacy enabled (Y) will block Camp On / Call Waiting.

Program 0201 - Call Waiting (Camp-On) Tone (page 628)

Enter Y to enable Camp-On tones system-wide. Enter N to disable Camp-On Tones system-wide.

Program 0403 - Call Waiting Tone Interval (page 655)

Set the interval between Camp-On tones.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service (1-15) to extensions.

Program 1802 - Off-Hook Signaling for Intercom Calls (page 758)

To enable Camp On tones for Intercom calls, enter 1.

Other Related Features

Attendant Position (page 37)

An extension user cannot Camp-On to the attendant because the attendant's extension is never busy.

Callback (page 92)

If an extension user Camps-On and then hangs up, the system converts the Camp-On to a Callback.

Caller ID (page 95)

An extension programmed to receive Camp On tones or Off-Hook Ringing from a waiting call will also receive Second Call Caller ID.

Direct Inward Line (page 170),

DILs to a busy extension automatically send Camp-On tones.

Do Not Disturb (page 220)

An extension cannot Camp-On to a busy co-worker that is also in Do Not Disturb.

Key Ring (page 344)

A Key Ring call will not send Camp-On beeps to a busy extension that normally rings for that call.

Intercom (page 339)

A user can Camp-On after placing an Intercom call to a busy co-worker.

Privacy (page 435)

Privacy blocks Camp-On / Call Waiting.

Split (Alternate) (page 493)

Camp-On lets an extension user know that a call is waiting to be answered. The user can Split between the waiting call and their current call.

Transfer (page 558)

An extension user can Transfer a call to a busy extension. The call will automatically Camp-On to the busy extension.

Trunk (Line) Queuing / Trunk Callback (page 569)







Trunk Queuing lets an extension user Camp-On to a busy trunk.

Volume Controls (page 603)

The extension user cannot adjust the volume of incoming Camp On tone.

Feature Operation

To Camp-On to a busy extension:

1. Call busy extension.
 Busy tone.
 **ICM and SPK** on.
2. Dial 2; do not hang up.
 Busy tone stops.
 **ICM and SPK** on.
If you hang up, the system converts your Camp-On to a Callback.
3. When your co-worker hangs up their initial call:
 Ringback. Camp-On rings your co-worker's phone also.
 **ICM and SPK** on.
4. Speak to your co-worker when they answer their Camp-On ring.

Callback

Description



DS1000/2000 Available.



With Callback, a user does not have to repeatedly call a busy extension back, hoping to find it idle.

When an extension user calls a busy co-worker, they can leave a Callback request for a return call. The system services Callback requests as follows:

- Caller at extension A leaves a Callback at extension B.
Caller can place or answer additional calls in the mean time.
- When extension B becomes idle, the system rings extension A. This is the Callback ring.
- Once caller A answers the Callback ring, the system rings (formerly busy) extension B.
If caller A doesn't answer the Callback ring, the system cancels the Callback.
- As soon as caller B answers, the system sets up an Intercom call between A and B.

An extension user can leave a Callback at many extensions simultaneously. The system processes the Callbacks as the extensions become free. In addition, many extensions can leave a Callback at the same extension. The system processes these Callbacks on a first-in/first-out (FIFO) basis.

If an extension user leaves a Callback request and then fails to answer within four rings, the system cancels the Callback.

Conditions

A system reset or power failure cancels all Callbacks system-wide.

Default Setting

Callback enabled.

Programming Guide

Step-by-step guide for setting up Callback

Step 1: Should extension be able to leave a Callback for a busy co-worker?

If yes



- In *Program 0101 - Camp-On to Busy Extension* (page 617), enter Y in each Class of Service that should allow users to leave a Callback at a busy extension.

If no



- In *Program 0101 - Camp-On to Busy Extension* (page 617), enter N in each Class of Service that should prevent users from leaving a Callback at a busy extension.

Step-by-step guide for setting up Callback

Step 2: When an extension leaves a Callback for a co-worker, should the co-worker hear Camp-On tones?

If yes

- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 628), enter Y to enable Camp-On tones system-wide.
- In *Program 0403 - Call Waiting Tone Interval* (page 655), set the interval between Camp-On tones.

If no

- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 628), enter N to disable Camp-On tones system-wide.

Programming List

Program 0101 - Camp-On to Busy Extension (page 617)

In an extension's Class of Service, enter Y to allow the extension to leave a Callback for a busy co-worker. Enter N to prevent the extension from leaving a Callback for a busy co-worker.

Program 0201 - Call Waiting (Camp-On) Tone (page 628)

Enter Y to enable Camp-On tones system-wide. Enter N to disable Camp-On Tones system-wide.

Program 0403 - Call Waiting Tone Interval (page 655)

Set the interval between Camp-On tones.

Other Related Features

Attendant Position (page 37)

An extension user cannot leave a Callback for the attendant because the attendant's extension is never busy.

Call Waiting / Camp-On (page 88)

If an extension user starts to leave a Callback request but doesn't hang up, the system Camps-On instead.

Central Office Calls, Answering (page 113)

If a trunk is ringing an extension because of a prior Callback, and then receives a new trunk call, it will start ringing for the new call. The Callback request is then queued.

Do Not Disturb (page 220)

An extension cannot leave a Callback for a busy co-worker that is also in Do Not Disturb.

Trunk (Line) Queuing / Trunk Callback (page 569)



An extension user can queue for a busy trunk and then hang up to turn the queue into a trunk Callback.

Callback



Feature Operation

To place a Callback:

1. Call busy extension.

 Busy tone.
 **ICM** and **SPK** on.

2. Dial 2 and hang up.

 Busy tone stops.
 **ICM** and **SPK** off.

Stay on the line without hanging up if you want to Camp-On instead.

3. When the busy co-worker becomes free:

 Intercom ring.
 **ICM** and **SPK** off.

4. Lift handset to answer.

 Two beeps.
 **ICM** on.

5. Speak to your co-worker when call goes through.

To cancel a Callback:

1. Do not lift the handset, do not press **ICM**, and do not press **SPK**.
2. Dial # + **DC** (32).

*This cancels the Callback you have left. If you have left callbacks for several extensions, this simultaneously cancels **all** your Callbacks.*

Description



DS1000/2000

Software version 03.10.08 improves the performance of DSP-based Caller ID when there is noise on the lines.



Caller ID automatically displays the phone number and optional name for incoming trunk calls.

Caller ID allows a display keyset to show an incoming caller's telephone number (called Directory Number or DN) and optional name. Caller ID supports the telco's Called Number Identification (CNI) and Called Number Delivery (CND) service, when available. These services provide the Caller ID information (i.e., messages) between the first and second ring burst of an incoming call.

Caller ID provides the following features:

Single and Multiple Message Format Compatibility

There are two types of Caller ID message formats currently available: Single Data Message Format (SDMF) and Multiple Data Message Format (MDMF). With Single Message Data Format, the telco sends only the caller's phone number (DN). The DN can be up to 10 digits long. In Multiple Data Message Format, the telco sends the DN and the caller's name. The DN for this format can be up to 15 digits long, and the name provided can consist of up to 15 ASCII characters.

If no DN is received, no number or error message displays.

Caller ID on the SMDR Report

Caller ID data prints on the SMDR report. SDMF records print a single line which shows just the incoming number. MDMF records print on two lines, with the first line showing the number and the second line showing the name. Unlike the telephone display, the SMDR report can show the entire 15 digits in the DN, if required.

Following is a same SMDR report showing Caller ID data. The first two lines of the report show a complete MDMF record with both the caller's number and name. The last two lines of the report show two Caller ID error messages: Private Number and Out of Area. The "IN" in the type column indicates that the records shown are for incoming calls.

If no DN is received, no number or error message displays.

Station Message Detail Recording
03/10/2000 11:11A

Sta	Lin	Number Dialed	Account	Start	Duration	T
301	02	2139261000		11:11:39A	00:00:13	IN
301	02	ANDERSON ALLEN		11:11:39A	00:00:13	IN
301	02	Private Number		11:12:26A	00:00:12	IN
301	02	Out of Area Number		11:13:16A	00:00:12	IN

Caller ID Integration with Voice Mail

Caller ID fully integrates with NVM-Series Voice Mail systems. This enables Voice Mail features such as Make Call with Caller ID. Make Call allows the Voice Mail subscriber to return a call to someone who left them a message without knowing the calling party's phone number.

Second Call Caller ID (Extension Level Call Waiting Caller ID)

While a display keyset user is busy on a call, the system can show the Caller ID information for a waiting call. If the busy extension is programmed to receive Camp On tones or Off-Hook Ringing from the waiting call, the system will send the Caller ID data to the busy telephone's display. If the busy extension does not receive Camp On tones or Off-Hook Ringing, it will also not receive the waiting call's Caller ID. (Note that Caller ID data from a Camp On is displayed only once, corresponding to the single Camp On beep.) *This is an internal system feature and does not use the telco's Call Waiting Caller ID.*

Third Party Caller ID Check

Third Party Caller ID Check allows an idle or busy keyset user to display the Caller ID data for another trunk. The trunk that the user checks can be ringing or busy.

Caller ID Display Separator

An extension's display can optionally show a calling party number separator. The separator is a dash after the area code and after the local exchange on a 7 or 10 digit number. If disabled, the calling party number displays without a separator.

Caller ID to Single Line Telephones

The system provides Caller ID data to single line ports. This allows single line Caller ID telephones to receive the Caller ID data also available at keysets. Up to 8 single line telephones can receive Caller ID data simultaneously. (To conserve system resources, consider turning off Caller ID in **Program 0101 - CLID Display** (page 620) for extensions that do not require or support Caller ID.)

On Intercom calls, the single line telephone display will show the extension number and name (if programmed) of the internal caller.

Hardware Requirements

In DS2000, Caller ID to single line ports requires either 4ASTU Analog Station (ASTU) PCBs P/N 80040B or 8ASTU Analog Station PCBs P/N 80041B. Caller ID to single line ports in DS1000 does not require any updated or additional components.

DSP-Based Caller ID

With DS2000 DSP-based Caller ID, Caller ID is built into the system's ATRU Analog Trunk PCBs and does not require Caller ID daughter boards. DS2000 4ATRU PCB P/N 80010B and 8ATRU PCB 80011B provide this capability. DSP-based Caller ID is the only type of Caller ID available in DS1000 and does not require any updated or additional components. Software version 03.10.08 improves the performance of DSP-based Caller ID when there is noise on the lines.

Conditions

- If using Caller ID Daughter Boards on your ATRU PCBs:
 - 4ATRU PCB P/N 80010A uses Caller ID Daughter Board P/N 92012.
 - 8ATRU PCB P/N 80011A uses Caller ID Daughter Board P/N 80013.
 - The 4ATRU and 8ATRU PCBs must use firmware 1.5 or higher.

Default Setting

- Caller ID for each a trunk is disabled. See **Program 1001 - Caller ID** (page 704).
- Caller ID with Voice Mail is enabled. See **Program 1001 - Voice Mail Caller ID** (page 705).
- An extension's Caller ID display is enabled. See **Program 0101 - CLID Display** (page 620).
- Second Call Caller ID is enabled. See **Program 0101 - 2nd Call CLID (Extension Level Call Waiting Caller ID)** (page 620).
- Third Party Caller ID Check is disabled. See **Program 0101 - 3rd Party Caller ID** (page 620).
- The Caller ID Display Separator is disabled. See **Program 0101 - CLID Display Separator** (page 620).
- The telco must provide Caller ID service for each trunk that has Caller ID programming enabled.

Programming Guide

Step-by-step guide for setting up Caller ID

Step 1: Should the trunk provide Caller ID?

If yes

- (DS1000)
In *Program 1001 - Caller ID* (page 704), enter 1 (for DSP). In *Program 0402 - Caller ID Detection Timer* (page 652), check for compatibility with the local telco.
- (DS2000)
In *Program 1001 - Caller ID* (page 704), enter 1 (for DSP) or 2 (for daughter board). If using DSP-based Caller ID, in *Program 0402 - Caller ID Detection Timer* (page 652), check for compatibility with the local telco. Also, be sure you are using either 4ATRU PCBs P/N 80010B and/or 8ATRU PCBs 80011B.

If no

- In *Program 1001 - Caller ID* (page 704), enter 0.

Step 2: Should the extension display Caller ID?

If yes

- In *Program 0101 - CLID Display* (page 620), enter Y.

If no

- In *Program 0101 - CLID Display* (page 620), enter N.

Caller ID

Step-by-step guide for setting up Caller ID

Step 3: Should the extension display 2nd Call Caller ID (Extension Level Call Waiting Caller ID)?

If yes

- In *Program 0101 - 2nd Call CLID (Extension Level Call Waiting Caller ID)* (page 620), enter Y.
- In *Program 1802 - Off-Hook Signaling for CO Calls* (page 759), enter 1 for Camp On Tones or 2 for Off Hook Ringing. See the *Programming List* below for more.
- In *Program 1701 - Call Timer Key* (page 739), disable the Call Timer key (code 16). The Caller Timer will block the first line (caller's name) of the 2nd Call Caller ID display.

If no

- In *Program 0101 - 2nd Call CLID (Extension Level Call Waiting Caller ID)* (page 620), enter N.

Step 4: Should the extension use 3rd Party Caller ID?

If yes

- In *Program 0101 - 3rd Party Caller ID* (page 620), enter Y.

If no

- In *Program 0101 - 3rd Party Caller ID* (page 620), enter N.

Step 5: Should the extension use the Caller ID Display Separator?

If yes

- In *Program 0101 - CLID Display Separator* (page 620), enter Y.

If no

- In *Program 0101 - CLID Display Separator* (page 620), enter N.

Step 6: Assign Class of Service to Extensions

If yes

- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 7: Should the system send Caller ID data to Voice Mail for a trunk?

If yes

- In *Program 1001 - Voice Mail Caller ID* (page 705), enter Y. You should enable *Program 1001 - Caller ID* (page 704), as well.

If no

- In *Program 1001 - Voice Mail Caller ID* (page 705), enter N.

Programming List

Program 0101 - CLID Display (page 620)

This option enables (Y) or disables (N) Caller ID in an extension's Class of Service. If enabled, Caller ID will occur for all extensions with this Class of Service provided Caller ID is enabled in other system programming. If disabled (N), Caller ID will never occur for extensions with this Class of Service.

Program 0101 - 2nd Call CLID (Extension Level Call Waiting Caller ID) (page 620)

This option enables (Y) or disables (N) Second Call Caller ID in an extension's Class of Service. If enabled, Second Call Caller ID will occur for all extensions with this Class of Service provided Second Call Caller ID is enabled in other system programming. If disabled (N), Second Call Caller ID will never occur for extensions with this Class of Service.

Program 0101 - 3rd Party Caller ID (page 620)

This option enables (Y) or disables (N) Third Party Call Caller ID Check in an extension's Class of Service. If enabled, Third Party Caller ID Check is available to all extensions with this Class of Service provided Caller ID is enabled in other system programming. If disabled (N), Third party Caller ID check is unavailable to extensions with this Class of Service.

Program 0101 - CLID Display Separator (page 620)

This option enables (Y) or disables (N) the Caller ID display separator. If enabled, the telephone displays a dash separator after the area code and after the local exchange on a 7 or 10 digit number. If disabled (N), the calling party number displays without a separator.

Program 0402 - Caller ID Detection Timer (page 652)

With DSP-based Caller ID, the Caller ID Detection Timer is the amount of time between the first and second ring bursts that the system can detect Caller ID digits. If this timer is set too long, the outside caller will hear ringing followed by reorder tone. If set too short, all the Caller ID digits may not be detected. This timer is not used with DS2000 daughter board-based Caller ID.

Program 1001 - Caller ID (page 704)

This option enables or disables Caller ID for each trunk. If enabled, Caller ID will occur if also enabled by the other Caller ID programmable options. To disable this option, enter 0. To enable this option:

(DS1000)

Enter 1 (for DSP).

(DS2000)

Enter 1 (for DSP) or 2 (for daughter board). Also, be sure you are using either 4ATRU PCBs P/N 80010B and/or 8ATRU PCBs 80011B.

Program 1001 - Voice Mail Caller ID (page 705)

This option enables (Y) or disables (N) the capability of the telephone system to send Caller ID data to an NVM-Series Voice Mail. If enabled, the telephone system will send incoming Caller ID data for any trunk answered by Voice Mail. (This will occur, for example, for DILs terminated to the Voice Mail master number.) If disabled (N), the telephone system will not provide a trunk's Caller ID data to Voice Mail. If you enable this option, you must also enable (Y) 1001: Caller ID.

Program 1701 - Call Timer Key (page 739)

If an extension has Call Timer enabled (code 16), the first line (i.e., caller's name) of the Second Call Caller ID display won't show. The user will only see the caller's number (in the second line).

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1802 - Off-Hook Signaling for CO Calls (page 759)

- If an extension is set up to receive Off Hook Ringing (entry = 2), it will receive Second Call Caller ID for each new trunk call. The display returns to idle when the second call stops ringing.

Caller ID

- If an extension is set up to receive Off Hook Ringing (entry = 1), it will receive Second Call Caller ID only for the first call. This occurs, for example, for DILs and transferred trunk calls. With transferred trunk calls, the Second Call Caller ID displays until the call recalls the transferring destination (if not picked up). With DILs, the Second Call Caller ID displays remains until the extension activates another feature.

Other Related Features

Call Timer (page 85)

The Auto Timer feature interacts with Caller ID on the first line of the telephone display. If an extension has Call Timer enabled, the first line (i.e., caller's name) of the Second Call Caller ID display won't show. The user will only see the caller's number (in the second line).

Call Waiting / Camp-On (page 88) and **Off-Hook Signaling** (page 394)

An extension programmed to receive Camp On tones or Off-Hook Ringing from a waiting call will also receive Second Call Caller ID.

Caller ID Logging (page 102)

An extension can store the caller's name and phone number for easy review and redialing.

Group Ring (page 279)

- An extension's display will show Caller ID data for a trunk terminated to a Ring Group master number *as* the call is ringing.

Station Message Detail Recording (page 498)

Caller ID prints out on the SMDR report.

Voice Mail (page 580)

Caller ID fully integrates with NVM-Series Voice Mail systems.

Feature Operation

To cancel the Caller ID display and return your phone to its normal display:



You can only do this while you're on a call, not while your phone is ringing.

1. Press **CLEAR**.

		N/A
		Your phone's display returns to normal.

To turn the Caller ID display back on (after you press CLEAR to cancel it):

1. Press **CHECK**.

		N/A
		The Caller ID number and optional name displays.



To display the Caller ID data for the third party's call (i.e., use Third Party Caller ID check):

1. Press **ICM + CHECK**.

2. Press the key for the call you want to check.

You can press a line key, loop key, Hotline key, or Call Coverage key:

- Press a line key while the call is ringing or connected to the third party.
- Press a loop key while the call is ringing the third party.
- Press a Hotline key while the call is connected to the third party.
- Press a Call Coverage key while the call is ringing the third party.

		N/A
		You see Caller ID data for the trunk you selected.

3. Hang up when you are done.

Caller ID Logging

Description



DS1000/2000

- Unique handling of a customer-provided answering machine (for systems without voice mail) requires software version 03.14.05 or higher.
- The system provides a total of 600 table entries shared by Toll Restriction and the Caller ID Dial Treatments. Each 3-digit code you enter uses 1 entry; each 6-digit code uses two entries.



An extension can store the caller's name and phone number for easy review and redialing.

When caller ID is enabled, Caller ID Logging stores a record of the caller's number and name (if provided by the telco) for each outside call that rings an extension. This allows an extension user to easily review and redial their calls. The system can log records directly to an extension or to one of 8 Caller ID Logging Groups. All the extensions in the same Logging Group share the same Caller ID records. Each extension or Logging Group can store up to 99 Caller ID records. DS2000 stores up to 1000 Caller ID records, allocated among all extensions and Caller ID Logging Groups. DS1000 stores up to 500. All Caller ID records are retained when the system is powered down or reset. If a trunk rings more than one extension simultaneously, the system logs the call at all ringing extensions.

Caller ID Logging also provides:

- **Programmable Caller ID Callback Routing**
You can set up Caller ID Callbacks (return calls) to select either a trunk or Trunk Group to redial calls allowed by the extension's Toll Restriction. Caller ID Callback Routing can also optionally:
 - Strip the area code from the number dialed.
 - Strip the leading 1 from the number dialed.
 - Add a leading 1 to the number dialed.
- **Soft Key Integration**
Unique Caller ID soft keys provide the extension user with the capability to view all of their Caller ID records or just records for unanswered calls. Super Display telephone users can additionally view records of answered calls.
- **Save Number to Speed Dial**
While reviewing a Caller ID record, the extension user can optionally store the number and optional name directly in an Extension Speed Dial bin.

Call ID Logging will make a record of any trunk call to an extension that can normally be answered using Ringing Line Preference. These include:

- Line key (Key Ring) and Loop Key calls
- Transfers
- Direct Inward Lines (DILs)
- Group Ring calls

Caller ID Logging Enhancements

Caller ID Logging is enhanced as follows:

- **New Record for Calls on Hold and Parked Calls**
The system creates a new Caller ID record for a call retrieved from Hold at an extension other than the one that initially placed it on Hold.
 - A new call rings the system and creates a CID record.
 - Extension 301 answers the call and places it on Hold.
 - Extension 302 retrieves the call from Hold.
 - The system creates another record of the call at extension 302.

The same is also true for Parked calls.

- **New Record for Transferred Call**

A transferred call creates a new call record each time it is transferred. For example:

- A new call rings the system and creates a CID record.
- Extension 300 answers the call and transfers it to extension 301.
- The system creates a new (answered) record for the call at extension 301.
- Extension 301 transfers the call to extension 302.
- The system creates another new (answered) record for the call at extension 302.

- **Answered Status for Calls Answered at Analog Ports**

Calls answered by keyset (digital) and single line (analog) extensions are marked as answered.

Calls answered by Voice Mail ports are not marked as answered.

- **Record Created for Voice Mail Park and Page**

If a call is placed in Personal Park Orbit by Voice Mail, the system creates a record for the call on the extension at which it is parked, and at the extension that picked up the call. (Note that there is no record created at the Voice Mail port.)

Caller ID and Answering Machines

If voice mail *is not* installed, Caller ID Logging can provide unique handling of a customer-provided answering machine. If an extension is designated as an answering machine in programming, any trunk call picked up by the answering machine will not be marked as answered in the Caller ID log. For example, if a call rings into the system and is picked up by the answering machine, it will show as a new call in the Caller ID log. In addition, it will flash green on the Ring/Message lamp indicating that there is a new call.

Conditions

None

Default Setting

- There is no Caller ID outbound line/group specified.
- There is no home area code specified. In addition, all local calls are 7 digits long.
- In DS1000, all keyset extensions (300-315) are in Caller ID Logging Group 1. Since all keysets share a common group log, deleting a record at one keyset will automatically update the log for all others.
- In DS2000, extensions 300-315 are set up for personal logging with 10 records each. There are no records assigned to other extensions.
- Caller ID Logging Group 1 can store 99 records. All other groups are blank.
- All trunks are assigned to Caller ID Logging Group 1.
- The Caller ID Alert Lamp is enabled.

Caller ID Logging

Programming Guide

Step-by-step guide for setting up Caller ID Logging (Page 1 of 3)

Step 1: Is Caller ID installed?

If yes

- Go to step 2.

If no

- Go to **Caller ID** (page 95) and set up your system's Caller ID.

Step 2: Assign the trunk or Trunk Group the system will use for Caller ID callbacks?

- *InProgram 1302 - Caller ID Outbound Line/Group* (page 724), specify the trunk (1-6 in DS1000, 1-64 in DS2000) or Trunk Group (90-98) the system will use when redialing Caller ID calls. **You must make an assignment in this program.**

Step 3: Designate the system's home area code (i.e., the area code in which the system is installed).

- *InProgram 1303 - Home Area (HNPA) Codes* (page 726), initialize the table and enter the area code in which the system is installed. **You must make an assignment in this program so that Caller ID can properly process callbacks (return calls).**

Step-by-step guide for setting up Caller ID Logging (Page 2 of 3)

Step 4: Should the extension have personal Caller ID Logging or group Caller ID Logging?

Personal

- In *Program 1807 - Caller ID Log Type* (page 773), enter 1.
- In *Program 1807 - Caller ID Personal Records* (page 773), specify the number of Caller ID records (0-99) the extension should have. When assigning records, be careful not to exceed the system record total (500 in DS1000, 1000 in DS2000).

Group

- In *Program 1807 - Caller ID Log Type* (page 773), enter 2.
- In *Program 1807 - Caller ID Logging Group* (page 773), specify the Caller ID Logging Group to which the extension should belong (1-8).
- In *Program 1005 - Trunk Caller ID Logging Group* (page 717), enter the Caller ID Logging Group (1-8) into which the trunk should log its calls. The trunk can be a member of any or all Caller ID Logging Groups.
- In *Program 1301 - Caller ID Group Configuration* (page 723), specify the total number of Caller ID records that can be stored in the Caller ID Logging Group (1-99). When assigning records, be careful not to exceed the system record total (500 in DS1000, 1000 in DS2000).

Step 5: Does the area in which the system is installed use 10-digit local calling? (This entry is required for Caller ID callbacks.)

Yes

- In *Program 1302 - 10 Digit Local Calls* (page 725), enter Y.

No

- In *Program 1302 - 10 Digit Local Calls* (page 725), enter N.

Step 6: Are any calls within the system's home area code toll calls? (This entry is required for Caller ID callbacks.)

Yes

- In *Program 1304 - Home Area (HNPA) Exception List* (page 728), configure the table so Caller ID callbacks can properly process the toll calls.

No

- In *Program 1304 - Home Area (HNPA) Exception List* (page 728), do not make any entries.

Caller ID Logging

Step-by-step guide for setting up Caller ID Logging (Page 3 of 3)

Step 7: Are there any calls in an area code adjacent to the home area code that are local calls? (This entry is required for Caller ID callbacks.)

Yes

- In *Program 1305 - Foreign Area (FNPA) Exception List* (page 730), enter the codes in the adjacent area code that are local calls.

No

- In *Program 1305 - Foreign Area (FNPA) Exception List* (page 730), do not make any entries.

Step 8: Do you want to initialize (clear) all the Caller ID logs system-wide?

Yes

- In *Program 9804 - Initialize Caller ID Log Utility* (page 791), enter Y to initialize (clear) all the Caller ID logs system-wide.

No

- In *Program 9804 - Initialize Caller ID Log Utility* (page 791), enter N to cancel the utility without initializing.

Step 9: Should the Ring/Message Lamp flash whenever the extension receives new Caller ID logs?

Yes

- In *Program 0101 - Caller ID Alert Lamp* (page 624), enter Y to enable the caller ID Alert Lamp.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

No

- In *Program 0101 - Caller ID Alert Lamp* (page 624), enter N to disable the caller ID Alert Lamp.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 10: If voice mail is not installed, should Caller ID Logging provide unique handling of a customer-provided answering machine?

Yes

- In *Program 1802 - Answering Machine* (page 761), enter Y for the answering machine's extension. Any trunk call picked up by the answering machine will not be marked as answered in the Caller ID log.

No

- In *Program 1802 - Answering Machine* (page 761), enter N.

Programming List

Program 0101 - Caller ID Alert Lamp (page 624)

Use this option to enable (Y) or disable (N) the Ring/Message Lamp for Caller ID. If enabled, the lamp will flash whenever the extension receives new Caller ID logs. If disabled, the lamp will not flash for Caller ID. By default, this option is enabled (Y).

Program 1005 - Trunk Caller ID Logging Group (page 717)

Enter a Logging Group (1-8) to have any call coming in on the trunk be logged directly into the group. A trunk can be a member of any or all of the 8 Caller ID groups. You specify the type of logging for extensions in **Program 1807 - Caller ID Log Type** (page 773).

Program 1301 - Caller ID Group Configuration (page 723)

Determine the total number of Caller ID records (1-99) that can be stored in each Caller ID Group. Each group can contain up to 99 records. In DS2000, the system-wide total is 1000. In DS1000, the system-wide total is 500.

- When assigning records, you cannot exceed the total allowed by the system. For example, if you attempt to assign 50 records and there are only 10 left, the system will automatically change your entry to 10.

Program 1302 - Caller ID Outbound Line/Group (page 724)

Use this option to specify the trunk (1-6 in DS1000, 1-64 in DS2000) or trunk group (90-98) the system will use when redialing Caller ID calls. **You must make an assignment in this program to enable Caller ID callbacks (return calls).**

Programs 1302 through 1305 determine how the system redials Caller ID calls received as 10 digits or less. This is the US standard (i.e., the leading 1 is not received from telco for long distance calls). If the system is in an area where the telco provides more than 10 digits, the digits are redialed as is (with no modification).

Program 1302 - 10 Digit Local Calls (page 725)

Use this option to indicate if the system is installed in an area that uses 10 digit local calling. Enable (Y) this option if the system is in a 10-digit local calling area. Disable (N) this option if the system is not in a 10-digit local calling area.

- If enabled, the system will dial all your local Caller ID callbacks as 10-digit calls.
- If disabled, the system will dial all your local Caller ID callbacks as 7-digit calls.

!! Important !!

- **Initializing program 0601 automatically initializes programs 0602 through 0606, as well programs 1303 through 1305.**
- Programs 1303 through 1305 can be individually initialized, if required.

Program 1303 - Home Area (HNPA) Codes (page 726)

Use this option to specify your system's home area code. This is the area code in which the system is installed. Use the same keys and procedures to program this table that you use for Toll Restriction. See *Toll Restriction* on page 549 for more. **You must make an assignment in this program so that Caller ID can properly process callbacks (return calls).**

Program 1304 - Home Area (HNPA) Exception List (page 728)

Use this option to identify which (if any) calls within your home area code are toll calls. You can set up the Exception List table as a local table (L) or toll table (T). By default, the HNPA Exception List is a Toll Table with no entries. (This means that the system outdials **all** calls within the home area code without the leading 1.)

- When set up as a **Local Table**, the system identifies the NPA + NXX codes you enter as local codes. All other NPA + NXX combinations within your home area code are flagged as toll calls.
 - If *1302 - 10 Digit Local Calls* is enabled (Y), the system dials all local calls as 10-digit (NPA + NNX + xxxx).
 - If *1302 - 10 Digit Local Calls* is disabled (N), the system strips the NPA and dials all local calls as 7-digit (NXX + xxxx).

Caller ID Logging

- When set up as a **Toll Table**, the system identifies the NPA + NXX codes you enter as toll calls. The system outdials them *with* a leading 1. All other NPA + NXX combinations are considered local codes.
 - If *1302 - 10 Digit Local Calls* is enabled (Y), the system dials all local calls as 10-digit (NPA + NXX + xxxx).
 - If *1302 - 10 Digit Local Calls* is disabled (N), the system strips the NPA and dials all local calls as 7-digit (NXX + xxxx).

Program 1305 - Foreign Area (FNPA) Exception List (page 730)

If your dialing area has calls in an adjacent area code that are local calls, enter those codes in this table. If the system finds the code in the table, it will dial it as 10-digit (without the leading 1). If the system does not find the code, the system will outdial it as 1 + 10-digit.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1802 - Answering Machine (page 761)

For systems *without* voice mail that are using a customer-provided answering machine, use this option to designate (Y) the extension as an Answering Machine. This will cause any trunk call picked up by the answering machine not to be marked as answered in the Caller ID log.

Program 1807 - Caller ID Log Type (page 773)

Use this option to specify the type of Caller ID Logging at an extension. The options are 0 (no logging), 1 (personal logging), or 2 (group logging). With personal logging, an extension's records are stored on their phone. With group logging, all extensions within the same Caller ID logging group share the same records. If the number of records is exceeded at the extension or in a group, new call records overwrite old call records (FIFO, or first-in, first-out).

Program 1807 - Caller ID Personal Records (page 773)

If *1807 - Caller ID Log Type* is 1 (Personal Logging), use this option to specify the number of Caller ID records (0-99) the extension should have.

Program 1807 - Caller ID Logging Group (page 773)

If *1807 - Caller ID Log Type* is 2 (Group Logging), use this option to specify to which Caller ID Logging Group the extension belongs (1-8).

Program 9804 - Initialize Caller ID Log Utility (page 791)

Use this option to initialize (clear) all the Caller ID logs system-wide. This utility clears all the personal logs as well as all the group logs. It has no effect on other Caller ID programming.

Some Common Caller ID Logging Examples

Example 1

Enable Caller ID callbacks (return calls) for a system in area code 203 (where there is no 10-digit local calling or other special requirements).

1. In **Program 1001 - Caller ID** (page 704), enable Caller ID for each trunk. Enter 1 for DSP Caller ID or 2 for Daughter Board Caller ID (DS2000 only).
2. In **Program 1302 - Caller ID Outbound Line/Group** (page 724), select a trunk (1-6 in DS1000, 1-64 in DS2000) or trunk group (90-98) that the system should use when processing Caller ID callbacks.
3. In **Program 1303 - Home Area (HNPA) Codes** (page 726), enter 203.
 - The system will add a leading 1 to all calls to all area codes other than 203.
 - Calls to area code 203 will be redialed as 7-digit calls.

Example 2

Enable Caller ID callbacks (return calls) for a system in area code 203 where there is 10-digit local calling and a local exchange in adjacent area code 860.

1. In **Program 1001 - Caller ID** (page 704), enable Caller ID for each trunk. Enter 1 for DSP Caller ID or 2 for Daughter Board Caller ID (DS2000 only).
2. In **Program 1302 - Caller ID Outbound Line/Group** (page 724), select a trunk (1-6 in DS1000, 1-64 in DS2000) or trunk group (90-98) that the system should use when processing Caller ID callbacks.
3. In **Program 1302 - 10 Digit Local Calls** (page 725), enter Y.
4. In **Program 1303 - Home Area (HNPA) Codes** (page 726), enter 203.
5. In **Program 1304 - Home Area (HNPA) Exception List** (page 728):
 - Configure the table as a local table (L)
 - Enter the local exchanges within area code 203.
 - Calls within area code 203 that are found in the list are redialed as 10-digit local calls. Calls within area code 203 not found in the list are redialed as 1 + 10 digit toll calls.
6. In **Program 1305 - Foreign Area (FNPA) Exception List** (page 730), enter the NPA + NXX combination for area code 860 that is a local call. The call is redialed as a 10-digit local call.

Other Related Features

Caller ID (page 95)

Caller ID automatically displays the phone number and optional name for incoming trunk calls.

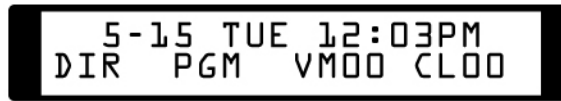
Caller ID Logging

Feature Operation

See *22-Button and 34-Button Display Telephone Operation* and *Super Display Telephone Operation* below.

22-Button and 34-Button Display Telephone Operation

To review your Caller ID log:



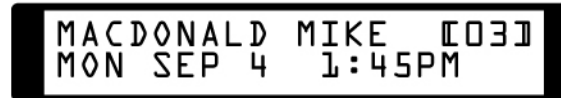
```
5-15 TUE 12:03PM
DIR PGM VMOO CLOO
```

1. Press **CLnn** (where **nn** is the number of Caller ID records currently logged at your phone).
 - Your Ring/Message Lamp (the large green LED on the upper right corner of your phone) winks on (green) when you have Caller ID records you have not reviewed.
 - After pressing **CLnn**, you see:



```
Total:02 New:02
ALL UNAN DEL* EXIT
```

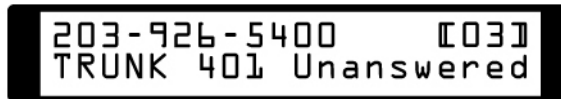
- **Total** = the total number of Caller ID records in your log.
 - **New** = the number of new calls since you last reviewed your log.
2. While this display is on screen, you can:
 - Press **ALL** to review all your Caller ID records.
 - Press **UNAN** to review the records just for calls that rang your phone but were *unanswered in the system*.
 - Press **DEL*** to delete all Caller ID records logged at your phone
 - Press **EXIT** or dial **9** to exit to the idle mode without making any changes.
 3. If you pressed **ALL** or **UNAN** in the previous step, you see (for example):



```
MACDONALD MIKE [03]
MON SEP 4 1:45PM
```

This display is page 1 of a Caller ID record. It shows:

- The name of the person that called (if available). *The most recent call displays first.*
 - The call record number (e.g., 03).
 - The date they called (i.e., Yesterday, Today, or day of week and date).
4. Press the **CHECK** key. You see (for example):



```
203-926-5400 [03]
TRUNK 401 Unanswered
```

This display is page 2 of a Caller ID record. It shows:

- Your caller's phone number.
 - The call record number (e.g., 03).
 - The trunk number (or name - if programmed) the call came in on.
 - The extension that answered the call, or if it was unanswered.
5. Use the **Vol Up** and **Vol Down** keys to scroll through the Caller ID records logged at your phone.
 6. Press the **CHECK** key to toggle between the page 1 and page 2 displays.

- When a Caller ID record is displayed, you can:
 - Press the **DIAL** key to call the person back.
 - Dial **7 (S)** to store the number in a Personal Speed Dial bin (following normal Speed Dial programming).
 - Dial **3 (D)** to delete the displayed record.
 - Dial **9 (X)** to exit (go back to step 2) without making any changes.
 - Press the **CLEAR** key to show the Caller ID Menu display below).

```
MACDONALD MIKE [03]
CALL STOR DEL EXIT
```

- While the Caller ID Menu displays, you can:
 - Press **CALL** to call the person back.
 - Press **STOR** to store the number in a Personal Speed Dial bin (following normal Speed Dial programming).
 - Press **DEL** to delete the displayed record.
 - Press **EXIT** to go back to step 2.
 - Press the **CLEAR** key to back up to step 7.

Super Display Telephone Operation

To review your Caller ID log:

```
5-16 WED 8:02AM
DIRECTORY
PROGRAM
V-MAIL 00
CALLS 03 SP DIAL 1
PAGE SP DIAL 2
```

- Press **CALLS nn** (where **nn** is the number of Caller ID records currently logged at your phone).
 - Your Ring/Message Lamp (the large green LED on the upper right corner of your phone) winks on (green) when you have Caller ID records you have not reviewed.
 - After pressing **CALLS nn**, you see:

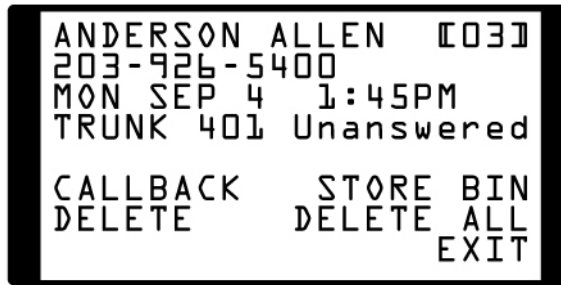
```
Total:03 New:02
Unans:03 Ans:00

VIEW ALL
VIEW UNANS VIEW ANS
DELETE ALL EXIT
```

- Total** = the total number of Caller ID records in your log.
- New** = the number of new calls since you last reviewed your log.
- Unans** = the number of Caller ID calls that rang your phone that were *unanswered in the system*.

Caller ID Logging

- **Ans** = the number of Caller ID calls that rang your phone that were answered in the system.
2. While this display is on screen, you can:
 - Press **VIEW ALL** to review all your Caller ID records.
 - Press **VIEW UNANS** to review the records just for calls that rang your phone but were unanswered in the system.
 - Press **DELETE ALL** to delete all Caller ID records logged at your phone.
 - Press **VIEW ANS** to review the records just for the calls that rang your phone that were answered in the system.
 - Press **EXIT** or dial **9** to exit to the idle mode without making any changes.
 3. If you pressed **VIEW ALL**, **VIEW UNANS**, or **VIEW ANS** in the previous step, you see (for example):



This display is a Caller ID record. It shows:

- The name of the person that called (if available). The most recent call displays first.
 - The call record number (e.g., 03).
 - Your caller's phone number.
 - The date they called (i.e., Yesterday, Today, or day of week and date).
 - The time they called.
 - The trunk number (or name - if programmed) the call came in on.
 - The extension that answered the call, or if it was unanswered.
4. Use the **Vol Up** and **Vol Down** keys to scroll through the Caller ID records logged at your phone.
 5. While a Caller ID record is displayed, you can:
 - Press **CALLBACK** to call the person back.
 - Press **DELETE** to delete the displayed record.
 - Press **STORE BIN** to store the number in a Personal Speed Dial bin (following normal Speed Dial programming steps).
 - Press **DELETE ALL** to delete all your Caller ID records.
 - Press **EXIT** to go back to step 1 without making any changes.

Description



DS1000/2000

Available. See *Default Setting* below for specifics on the initial trunk setup.



The system allows trunk calls to ring and be answered at any combination of system extensions.

The system provides flexible routing of incoming CO (trunk) calls to meet the exact site requirements.

Answering Priority

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. Line key (from lowest to highest)
2. Fixed Loop Key (from lowest to highest)
3. Switched Loop Key (from lowest to highest)
4. **ICM Key**

Overflow

Refer to *Overflow for Key Ring Calls* on page 344 for details on the overflow options.

Single Ring Option for Single Line Sets

The option **Program 0101 - Single Ring for Single Line Sets** (page 619) determines the type of ringing at analog single line extensions. If enabled (Y), analog single line extensions always receive single ringing for trunk calls. (Certain analog single line devices connected to the system may require this type of ringing.) If disabled (N), trunk ringing at analog single line extensions follows the ringing pattern of the trunk. For example, if a trunk is ringing the system with two ring bursts, the single line extensions will follow the same ringing pattern.

Conditions

- The system provides analog trunk CO service via ATRU PCBs. ATRU PCBs can connect to either loop start or ground start trunks (depending on circuit type programming). Refer to the Hardware Manual for additional details on installing ATRU PCBs and connecting trunks.
- Per FCC regulations, do not set *1001- Trunk Transmit Gain* on page 700 higher than 0 dB.

Default Setting

DS2000

- All extensions have full access on all trunks.
- Trunks 1-12 ring on line keys 1-12 for extensions 300-315. All other extensions are lamp only for trunks 1-12. Trunks 13-64 do not appear on line keys.
- Single line sets ring according to **1805 - Ring Assignment** programming. (By default, all single line sets are lamp only.)

DS1000

- All extensions have full access on all trunks.
- Trunks 4-6 require the Expansion Board.
- Extensions have immediate day/night ring on all trunks.
- Single line sets ring according to **1805 - Ring Assignment** programming (just like keysets).
- Trunks 1-6 ring extensions on line keys 1-6.

Central Office Calls, Answering

Programming Guide

Step-by-step guide for setting up Central Office Calls, Answering (Page 1 of 3)

Step 1: Check to be sure each trunk's circuit type and loop length setting matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP).
- In *Program 1001 - Loop Length* (page 704), use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Step 2: Review *System Timers, Trunks* on page 524 for compatibility with the connected telco or PBX/Centrex.

Step 3: Set the trunk access options at each extension for each trunk.

No access



Incoming



Outgoing



Full



- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 0 to prevent both incoming and outgoing access on the trunk.
- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 1 to allow incoming access only.
- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 2 to allow outgoing access only.
- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 3 to allow full access (both incoming and outgoing).

Step 4: Set the ringing options at each extension for each trunk.

Lamp only



Ring



Night Ring



- In *Program 1805 - Ring Assignment* (page 767), enter 1 for each trunk that should lamp only (day and night).
- In *Program 1805 - Ring Assignment* (page 767), enter 2 for each trunk that should ring during the day and at night.
- In *Program 1805 - Ring Assignment* (page 767), enter 3 for each trunk that should ring at night and lamp only during the day.

Central Office Calls, Answering

Step-by-step guide for setting up Central Office Calls, Answering (Page 2 of 3)

Delay Ring

- In *Program 1805 - Ring Assignment* (page 767), enter 4 for each trunk that should delay ring during the day and at night.
- In *Program 0401 - Trunk Delay Ring* (page 644), enter the interval after which a delay ring trunk will change from flashing to ringing.

Step 5: Should extension have line keys for answering trunk calls?

If yes

- In *Program 1701 - Line Key* (page 737), assign programmable keys as line keys (code 03). The options are 1-64 (for trunks 1-64) in DS2000, and 1-6 in DS1000.

If no

- In *Program 1701 - Line Key* (page 737), make sure no keys are assigned as line keys (code 03).
- In *Program 1701 - Switched Loop Key* (page 737), or in *Program 1701 - Fixed Loop Key* (page 737), assign a loop key to any extension without line keys. This allows the extension to answer trunk calls.

Step 6: Should DSS Console have line keys for answering trunk calls?

If yes

- In *Program 1704 - Line Key* (page 747), assign programmable keys as line keys (code 03). The options are 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

If no

- In *Program 1704 - Line Key* (page 747), make sure no keys are assigned as line keys (code 03).

Step 7: While on a trunk call, is a user's conversation transmitted to the caller at a comfortable level?

If yes

- In *Program 1001 - Trunk Transmit Gain* (page 700), leave this option at its current setting.

If no

- In *Program 1001 - Trunk Transmit Gain* (page 700), increase or decrease the trunk transmit gain for the optimum transmission level for the connected telco or PBX.

Step 8: While on a trunk call, is the conversation received by the user at a comfortable level?

If yes

- In *Program 1001 - Trunk Receive Gain* (page 702), leave this option at its current setting. The setting is applied to each line seizure.

Central Office Calls, Answering

Step-by-step guide for setting up Central Office Calls, Answering (Page 3 of 3)

If no

- In *Program 1001 - Trunk Receive Gain* (page 702), increase or decrease the trunk receive gain for the optimum reception level for the connected telco or PBX. The setting is applied to each line seizure.

Step 9: Does the system properly detect ringing trunks?

If yes

- In *Program 0402 - Minimum Ring Detection Timer* (page 649), leave this option at its current setting.

If no

- In *Program 0402 - Minimum Ring Detection Timer* (page 649), set the ring detect threshold for compatibility with the connected telco or PBX.

Step 10: Do trunks inadvertently disconnect while users are on a call?

If yes

- In *Program 0402 - Loop Current Detection Time* (page 651), set the loop disconnect interval for compatibility with the connected telco or PBX.

If no

- In *Program 0402 - Loop Current Detection Time* (page 651), leave this option at its current setting.

Step 11: Should single line extensions use single ring for trunk calls?

If yes

- In *Program 0101 - Single Ring for Single Line Sets* (page 619), enter Y to have single line sets ring with a single ring for trunk calls.

If no

- In *Program 0101 - Single Ring for Single Line Sets* (page 619), enter N to have single line sets follow the ringing pattern of the trunk.

Programming List

Program 0101 - Single Ring for Single Line Sets (page 619)

Use this option to determine the type of ringing at analog single line extensions. If enabled (Y), analog single line extensions always receive single ringing for trunk calls. (Certain analog single line devices connected to the system may require this type of ringing.) If disabled (N), trunk ringing at analog single line extensions follows the ringing pattern of the trunk. For example, if a trunk is ringing the system with two ring bursts, the single line extensions will follow the same ringing pattern.

Program 0401 - Trunk Delay Ring (page 644)

Set how long the system flashes a line key before ringing an extension that has the Delayed Ringing option enabled.

Program 0402 - Minimum Ring Detection Timer (page 649)

Set the threshold for ring detection. If the ring signal is longer than this interval, the system interprets the signal as valid ringing. If the signal is equal to or shorter than this interval, the system ignores the ringing.

Program 0402 - Loop Current Detection Time (page 651)

Set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk to idle.

Program 0402 - Ringing Signal End Detect Timer (page 652)

If the ringing signal on a trunk call is interrupted for longer than this interval, the system assumes ringing has stopped and terminates the call. If this interval is set to short, valid ringing will be inadvertently cut off. If too long, the system will leave the call set up even after ringing has stopped.

Program 1001 - Trunk Circuit Type (page 699)

Set the trunk's circuit type for compatibility with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1001 - Trunk Transmit Gain (page 700)

Set the trunk's transmit gain to compensate for the transmit gain characteristics of the connected telco or PBX. The setting is applied to each line seizure.

Program 1001 - Trunk Receive Gain (page 702)

Set the trunk's receive gain to compensate for the receive gain characteristics of the connected telco or PBX. The setting is applied to each line seizure.

Program 1001 - Loop Length (page 704)

Use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Program 1701 - Line Key (page 737)

Assign a programmable key on an extension as a line key (code 03). The options are 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

Program 1701 - Switched Loop Key (page 737)

Program 1701 - Fixed Loop Key (page 737)

In order to answer trunk calls, extensions without line keys should have loop keys.

Program 1704 - Line Key (page 747)

Assign a programmable key on a DSS Console as a line key (code 03). The options are 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 767)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Central Office Calls, Answering

Other Related Features

Call Timer (page 85)

The Call Timer helps a user keep track of the time they spend on the phone.

Direct Inward Line (page 170)

A DIL rings an extension directly.

Line Keys (page 356)

Line keys simplify answering trunk calls.

Loop Keys (page 360)

In order to answer trunk calls, extensions without line keys should have loop keys.

Night Service / Night Ring (page 389)

Night Service determines how outside calls ring at night.

Paging (page 409)

Trunk ringing can broadcast over the External Paging speakers.

System Timers, Trunks (page 524)

Always review the system's trunk timers for compatibility with the connected telco or PBX/Centrex.

Feature Operation

To answer an incoming trunk call:



Trunk ring.



Line or loop key flashing red for key ring call.

Line key flashing green for DIL.

1. Lift handset.

If you have Ringing Line Preference, lifting the handset answers the call.

If you have Automatic Handsfree, you can press the line or loop key without first lifting the handset.

2. Press flashing line or loop key.





Conversation with caller.



Line or loop key on.

Description

 DS1000	<ul style="list-style-type: none">• See <i>Default Setting</i> below for specifics on the initial trunk setup. Dial 9 is enabled by default.• Store and Forward requires software version 03.10.08 or higher.
 DS2000	<ul style="list-style-type: none">• See <i>Default Setting</i> below for specifics on the initial trunk setup. Dial 9 is enabled by default is software version 03.10.08 or higher. It is undefined in prior 03.**.** versions.• Store and Forward requires software version 03.10.08 or higher.



Customize the call placing options to meet the site requirements and each individual's needs.

The system provides flexibility in the way each extension user can place outgoing trunk calls. A user can place a call by:

- **Pressing a Line Key**
Any keyset can have line keys for one-touch access to specific trunks. See *Line Keys* on page 356 for more.
- **Pressing a Loop Key**
Loop Keys provide a user with one-touch access to the assigned Loop Group. Loop Groups can consist of one or more Trunk Groups. See *Loop Keys* on page 360 for more.
- **Using Line Dial-Up**
With Line Dial-Up, a user can select a specific trunk by pressing **ICM** and dialing the Line Dial-Up code (#9) followed by the trunk number (1-64 for trunks 1-64 in DS2000, 1-6 in DS1000).
- **Using Direct Trunk Access**
Direct Trunk Access allows a user to access a trunk by pressing **ICM** and dialing the trunk's extension number (e.g., 101 for trunk 1, 102 for trunk 2. etc.). See *Direct Trunk Access* on page 191 for more.
- **Dialing a Trunk Group Access Code**
User's can also place trunk calls by pressing **ICM** and dialing a Trunk Group Access Code (90-98). See *Trunk Groups* on page 572 for more.
- **Trunk Group Routing**
If the system has Trunk Group Routing enabled, user's get the first available trunk when they press **ICM** and dial 9. See *Trunk Group Routing* on page 566 for more.

Expanded Dial Buffering

When placing a trunk call, extension users can dial an unlimited number of digits. Users are assured that they can use services such as telephone banking without encountering restrictions imposed by the telephone system.

Store and Forward

Store and Forward is an alternate method of placing outside calls in which the system stores ("collects") the digits a user dials, waits for the user to finish dialing, and then redials the digits on the selected trunk. Store and forward provides Intercom dial tone to the caller as soon as they dial a trunk access code or press a loop key, similar to conventional ARS operation. When the user has completed dialing, the system will dial out the call over the connected trunk after 6 seconds or when the user dials #. Store and Forward can also be an advantage when connected to a T1 service that does not provide trunk dial tone.

Central Office Calls, Placing

Post dialing for Store and Forward calls is also available. After a user dials using Store and Forward, they can manually dial additional digits. The normal post dialing soft keys (such as **AUTO REDIAL** [**ALND**] for Auto Redial) are also enabled.

- Store and Forward does not apply to line keys, Direct Trunk Access, or line dial up (i.e., #9 plus the trunk number).
- Store and Forward requires software version 03.10.08 or higher.

Store and Forward with Forced Account Codes

You can use Account Codes if your system has Store and Forward enabled (see *Feature Operation* below). If you have Forced Account Codes enabled, to prevent users from bypassing Forced Account Codes consider making the following programming changes:

- For *Program 0101 - Direct Trunk Access* (page 620), enter N (disabled).
- For *Program 1802 - Line Dial Up* (page 759), , enter N (disabled).
- For *Program 1802 - Key Access to Outbound Lines* (page 760), , enter N (disabled).

Conditions

- Systems using Trunk Groups or Trunk Group Access should use the hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.
- Per FCC regulations, do not set *1001- Trunk Transmit Gain* on page 700 higher than 0 dB.

Default Setting

DS2000

- Trunks 1-12 ring on line keys 1-12 for extensions 300-315. All other extensions are lamp only for trunks 1-12. Trunks 13-64 do not appear on line keys.
- All extensions have full access on all trunks.
- Trunk Group Routing (dial 9) is assigned to trunk group 90 (which contains trunks 1-8). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
Order 1 = trunk 8
Order 2 = trunk 7
Order 3 = trunk 6
Order 4 = trunk 5
Order 5 = trunk 4
Order 6 = trunk 3
Order 7 = trunk 2
Order 8 = trunk 1
- *Store and Forward is disabled.*

DS1000

- Keys 1-6 are line keys for trunks 1-6.
- All extensions have full access on all trunks.
- Trunks 4-6 require the Expansion Board.
- All versions have User Programmable Feature steps for line keys.
- Trunk Group Routing (dial 9) is assigned to trunk group 90 (which contains trunks 1-6). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
Order 1 = trunk 6
Order 2 = trunk 5
Order 3 = trunk 4
Order 4 = trunk 3
Order 5 = trunk 2
Order 6 = trunk 1
- *Store and Forward is disabled.*

Programming Guide

Step-by-step guide for setting up Central Office Calls, Placing (Page 1 of 5)

Step 1: Check to be sure each trunk's circuit type and loop length setting matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP).
- In *Program 1001 - Loop Length* (page 704), use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Step 2: Review *System Timers, Trunks* on page 524 for compatibility with the connected telco or PBX/Centrex.

Step 3: Are connected trunks DTMF or Dial Pulse (DP)?

DTMF



DP



- In *Program 0402 - Manual DTMF Tone On* (page 650), set the DTMF on duration for compatibility with the connected telco or PBX.
- *Program 0402 - Manual DTMF Tone Off* (page 650), set the DTMF off duration for compatibility with the connected telco or PBX.
- In *Program 0402 - DP Make Timer* (page 649), set the DP make (on) interval for compatibility with the connected telco or PBX.
- In *Program 0402 - DP Break Timer* (page 649), set the DP break (off) interval for compatibility with the connected telco or PBX.
- In *Program 0402 - DP Interdigit Timer* (page 649), set the DP interdigit (time between digits) interval for compatibility with the connected telco or PBX.

Central Office Calls, Placing

Step-by-step guide for setting up Central Office Calls, Placing (Page 2 of 5)

Step 4: For Direct Trunk Access, should trunk extension numbers be left at their default setting (e.g., 101-164 in DS2000 or 101-106 in DS1000).

If yes

- In *Program 0503 - Trunk Extension Assignments* (page 677), leave the trunk extension numbers at their default settings (101-164 in DS2000 or 101-106 in DS1000).

If no

- In *Program 0503 - Trunk Extension Assignments* (page 677), change the trunk extension numbers to meet the site requirements (e.g., 801-816).

Step 5: Should trunk names be left at their default setting (Trunk 1, Trunk 2 etc.).

If yes

- In *Program 1001 - Trunk Name* (page 700), leave the trunk names at their default setting.

If no

- In *Program 1001 - Trunk Name* (page 700), change the trunk names to meet the site requirements.

Step 6: Set the trunk access options at each extension for each trunk.

No access

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 0 to prevent both incoming and outgoing access on the trunk.

Incoming

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 1 to allow incoming access only.

Outgoing

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 2 to allow outgoing access only.

Full

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 3 to allow full access (both incoming and outgoing).

Step 7: Should extension have line keys for placing trunk calls?

If yes

- In *Program 1701 - Line Key* (page 737), assign programmable keys as line keys (code 03). The options are 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

If no

- In *Program 1701 - Line Key* (page 737), make sure no keys are assigned as line keys (code 03).
- In *Program 1701 - Switched Loop Key* (page 737), or in *Program 1701 - Fixed Loop Key* (page 737), assign a loop key to any extension without line keys. This allows the extension to answer trunk calls.

Central Office Calls, Placing

Step-by-step guide for setting up Central Office Calls, Placing (Page 3 of 5)

Step 8: Should DSS Console have line keys for placing trunk calls?

If yes

- In *Program 1704 - Line Key* (page 747), assign programmable keys as line keys (code 03). The options are 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

If no

- In *Program 1704 - Line Key* (page 747), make sure no keys are assigned as line keys (code 03).

Step 9: Should extension user have single digit (dial 9) access to outside calls?

If yes

- In *Program 0501 - Single Digit Access* (page 673), enter Y.
- In *Program 1802 - Station's Dial 9 Group* (page 759), assign the Trunk Group (0-8) the station will select after the user dials 9.
- In *Program 1002 - Trunk Groups* (page 709), assign trunks to Trunk Groups.

If no

- In *Program 0501 - Single Digit Access* (page 673), enter N. Users dial 9 followed by the Trunk Group number (0-8).
- In *Program 1002 - Trunk Groups* (page 709), assign trunks to Trunk Groups (0-8).

Step 10: Should extension have Line Dial-up capability (i.e., the ability to dial #901-#916).

If yes

- In *Program 1802 - Line Dial Up* (page 759), Enter Y.

If no

- In *Program 1802 - Line Dial Up* (page 759), enter N.

Step 11: While on a trunk call, is a user's conversation transmitted to the caller at a comfortable level?

If yes

- In *Program 1001 - Trunk Transmit Gain* (page 700), leave this option at its current setting.

If no

- In *Program 1001 - Trunk Transmit Gain* (page 700), increase or decrease the trunk transmit gain for the optimum transmission level for the connected telco or PBX.

Central Office Calls, Placing

Step-by-step guide for setting up Central Office Calls, Placing (Page 4 of 5)

Step 12: While on a trunk call, is the conversation received by the user at a comfortable level?

If yes

- In *Program 1001 - Trunk Receive Gain* (page 702), leave this option at its current setting.

If no

- In *Program 1001 - Trunk Receive Gain* (page 702), increase or decrease the trunk receive gain for the optimum reception level for the connected telco or PBX.

Step 13: Do trunks inadvertently disconnect while users are on a call?

If yes

- In *Program 0402 - Loop Current Detection Time* (page 651), set the loop disconnect interval for compatibility with the connected telco or PBX.

If no

- In *Program 0402 - Loop Current Detection Time* (page 651), leave this option at its current setting.

Step 14: Do users ever experience call collisions (i.e., connect to an incoming call while placing an outgoing call)?

If yes

- In *Program 0402 - Force Idle (Trunk Guard Time)* (page 648), lengthen the trunk guard time.

If no

- In *Program 0402 - Force Idle (Trunk Guard Time)* (page 648), leave the trunk guard time at its current setting.

Step 15: If the system encounters a defective trunk while placing a call, does it wait the proper interval before automatically cycling to the next trunk?

If yes

- In *Program 0402 - Line Response* (page 647), leave this interval at its current setting.

If no

- In *Program 0402 - Line Response* (page 647), set the *Line Response* interval to meet the site's requirements.

Step 16: Should 1 be the first digit in the Direct Trunk Access code?

If yes

- In *Program 0501 - Numbering Plan* (page 671), leave the parameters for digit 1 at their default settings.

If no

- In *Program 0501 - Numbering Plan* (page 671), set up another digit (in place of 1) that meets the site's requirements.

Step-by-step guide for setting up Central Office Calls, Placing (Page 5 of 5)

Step 17: Should the system use Store and Forward when placing trunk calls?

If yes

- In *Program 1001 - Store and Forward* (page 706), enter Y to enable Store and Forward for **every trunk** in the trunk group the user will access when they dial a trunk access code or press a loop key. If enabled, the system buffers the user-dialed digits and dials them on the trunk when the user has completed dialing. **You should enable store and forward for every trunk in accessed trunk group.**
- When outdialing the call using DTMF, the system uses the following DTMF settings:
 - 0402 - *Speed Dial DTMF Tone On* on page 650.
 - 0402 - *Speed Dial DTMF Tone Off* on page 651.
- When outdialing the call using Dial Pulse, the system uses the following Dial Pulse settings:
 - 0402 - *DP Make Timer* on page 649.
 - 0402 - *DP Break Timer* on page 649.
 - 0402 - *DP Interdigit Timer* on page 649.
- The 6 second interval the system waits before dialing the Store and Forward call is determined by the setting of 0401 - *Intercom Inter-digit* on page 642.

If no

- In *Program 1001 - Store and Forward* (page 706), enter N to disable Store and Forward for **every trunk** where Store and Forward should not be in effect.

Central Office Calls, Placing

Programming List

Program 0402 - Line Response (page 647)

When the system fails to detect loop current on a trunk, it will wait this interval before marking the trunk as defective. Be sure the value you enter is compatible with the local telco.

Program 0402 - Force Idle (Trunk Guard Time) (page 648)

Set the guard time for trunks. When the system disconnects a trunk (e.g., after a user hang up), the system keeps the line idle until this timer expires. The Trunk Guard Time helps prevent call collisions.

Program 0402 - DP Make Timer (page 649)

Set the duration of the Dial Pulse Make signal (i.e., relay closed). This is the “on” time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval.

Program 0402 - DP Break Timer (page 649)

Use this timer to set the duration of the Dial Pulse Break signal (i.e., relay open). This is the “off” time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - DP Interdigit Timer (page 649)

Set the duration of the Dial Pulse Interdigit signal (i.e., relay open time *between* each digit). Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - Manual DTMF Tone On (page 650)

Set the duration of DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - Manual DTMF Tone Off (page 650)

Set the duration of the interval between DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - Loop Current Detection Time (page 651)

Set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk to idle.

Program 0501 - Numbering Plan (page 671)

Review this option when if you want to change the digits user’s dial for Direct Trunk Access (normally 4 followed by the trunk number).

Program 0501 - Single Digit Access (page 673)

Use this option to enable or disable single digit access. If enabled (Y), users can dial 9 to select their assigned dial 9 Trunk Group. If disabled, users must dial 9 followed by the Trunk Group number (0-8 for Trunk Groups 0-8).

Program 1001 - Trunk Circuit Type (page 699)

Set the trunk’s circuit type for compatibility with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1001 - Trunk Name (page 700)

Assign extension numbers and names to trunk ports.

Program 1001 - Trunk Transmit Gain (page 700)

Set the trunk’s transmit gain (0-60) to compensate for the transmit gain characteristics of the connected telco or PBX.

Program 1001 - Trunk Receive Gain (page 702)

Set the trunk’s receive gain (0-60) to compensate for the receive gain characteristics of the connected telco or PBX.

Program 1001 - Loop Length (page 704)

Use this option to compensate for a trunk’s loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Program 1001 - Store and Forward (page 706)

Use this option to enable (Y) or disable (N) Store and Forward for *every trunk* in the trunk group the user will access when they dial a trunk access code or press a loop key. If enabled, the system buffers the user-dialed digits and dials them on the trunk when the user has completed dialing. If disabled, manually dialed digits output on the trunk as the user dials them.

You should enable store and forward for every trunk in accessed trunk group.

- When outdialing the call using DTMF, the system uses the DTMF settings in *0402 - Speed Dial DTMF Tone On* on page 650 and *0402 - Speed Dial DTMF Tone Off* on page 651 (the same as Auto Redial, Last Number Redial, and Save).
- When outdialing the call using Dial Pulse, the system uses the Dial Pulse settings in *0402 - DP Make Timer* on page 649, *0402 - DP Break Timer* on page 649, and *0402 - DP Interdigit Timer* on page 649.
- The 6 second interval the system waits before dialing the Store and Forward call is determined by the setting of *0401 - Intercom Inter-digit* on page 642.

Program 1002 - Trunk Groups (page 709)

Assign trunk Trunk Groups (0-8).

Program 1701 - Line Key (page 737)

Assign a programmable key on an extension as a line key (code 03). The options are 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

Program 1704 - Line Key (page 747)

Assign a programmable key on a DSS Console as a line key (code 03). The options are 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

Program 1802 - Line Dial Up (page 759)

Enter Y to allow an extension to access lines (1-64 in DS2000, 1-6 in DS1000) by dialing trunk access codes (#901-#964 in DS2000, #901-#906 in D1000).

Program 1802 - Station's Dial 9 Group (page 759)

Assign the trunk group (0-8) a user accesses when they dial 9 for an outside line or press a switched loop key. This option does not apply to systems with ARS installed.

Program 1802 - Key Access to Outbound Lines (page 760)

Enter Y to enable an extension user to press a Programmable Function Key to access and outside line.

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).

Program 1804 - Trunk Group Access (page 765)

For each extension, enter Y to allow or N to prevent outgoing trunk group access. The system always allows incoming trunk group access.

Central Office Calls, Placing

Other Related Features

Account Codes (page 24)

You can use Store and Forward with Forced Account Codes. See *Store and Forward with Forced Account Codes* on page 120 for more.

Automatic Handsfree (page 45)

With Automatic Handsfree, an extension user can press a line key to place a trunk call without first lifting the handset or pressing SPK. Users without Automatic Handsfree can preselect a line key before lifting the handset or pressing SPK.

Call Timer (page 85)

The Call Timer helps a user keep track of the time they spend on the phone.

Dial Number Preview (page 151)

Dial Number Preview allows an extension user to review a number before the system dials it out.

Direct Trunk Access (page 191)

Direct Trunk Access allows an extension user to seize an individual trunk and place a call without restriction.

Equal Access Compatibility (page 232)

The system is compatible with Equal Access numbers (e.g., 10-10-321).

Last Number Redial (page 351)

Easily redial the last number dialed.

Line Keys (page 356)

Line Keys give a user one-touch access to specific trunks.

Loop Keys (page 360)

An extension user may also be able to press a Loop Key to place an outside call.

Save Number Dialed (page 468)

Save a number you dialed, then easily redial it later on.

Speed Dial (page 481)

You can store outside numbers in Speed Dial bins for quick access to frequently called numbers.

System Timers, Trunks (page 524)

Always review the system's trunk timers for compatibility with the connected telco or PBX/Centrex.

Trunk Group Routing (page 566)

With Trunk Group Routing enabled, an extension user can dial 9 to place a trunk call.



Trunk (Line) Queuing / Trunk Callback (page 569)

An extension user can queue for a busy trunk, or queue and hang up to leave a callback for a busy trunk.

Feature Operation

To place a call over a specific trunk using a line key:

1. Lift handset.
2. Press line key.

 Trunk dial tone.
 Line key on.

You may also be able to press a Loop Key. See Loop Keys on page 360 for more.

3. Dial outside number.

To place a call over a specific trunk (using Line Dial-up or Direct Trunk Access):

1. Lift handset.
2. Press ICM.


 Intercom dial tone.
 ICM on.

If you hear busy tone, you may be able to dial 2 to queue for the busy trunk. See Trunk (Line) Queuing / Trunk Callback on page 569 for more.

3. **For Line dial-up:** Dial **#9** followed by the trunk number (e.g., #901 for trunk 1).

OR

For Direct Trunk Access: Dial 1 plus the trunk number (e.g., 101 for trunk 1).

 Trunk dial tone, followed by digits outdialing on the trunk.
 ICM on.



4. Dial outside number.

To place a call over a trunk group:

1. Lift handset.
2. Press ICM.

 Intercom dial tone.
 ICM on.

3. Dial trunk group code (90-98).

 Trunk dial tone.
 Line key on.



If you hear dial tone as soon as you dial 9, your system has Trunk Group Routing enabled. See Trunk Group Routing on page 566 for more.

4. Dial outside number.

Central Office Calls, Placing

To place an outside call using Store and Forward:

1. Press **ICM** and dial **9** (or optionally 90-98).
OR
Press Switched Loop key + Dial the trunk group number (0-8).
OR
Press Fixed Loop key.



		Intercom dial tone.
		N/A.
2. Dial the outside telephone number.
3. When you have completed dialing, wait 6 seconds or dial **#**.
The stored number dials out.

To place an outside call when both Store and Forward and Account Codes are enabled:

If the system has Forced Account Codes enabled for Toll Calls Only, place local calls normally (e.g., 9 + Dial outside number), without using the following procedure.

With Forced Account Codes for Toll Calls Only, you do not have to enter an Account Code for local calls. Just dial the call normally.

1. Press **ICM** and dial **9** (or optionally 90-98).
OR
Press Switched Loop key + Dial the trunk group number (0-8).
OR
Press Fixed Loop key.

		Intercom dial tone.
		N/A.
2. Dial the outside telephone number.
3. Wait for three beeps (Forced Account Codes only).
OR
Press the **ACCT (ACCT CODE)** soft key.
OR
Press your Account Code key.
4. Enter your Account Code.
5. Wait 6 seconds.
OR
Press the **ACCT (ACCT CODE)** soft key.
OR
Press your Account Code key.
OR
Dial **#**.

Description



DS1000/2000 || Available.



Quickly check keyset and DSS Console Programmable Function Key assignments.

A display telephone user can use the CHECK key to check keyset and DSS Console Programmable Function Key assignments and Personal Speed Dial bin names.

Conditions

None

Default Setting

Enabled

Programming Guide

None

Programming List

None

Other Related Features

Programmable Function Keys (page 444)

Check Programmable Function Key assignments.

Speed Dial (page 481)

Check Personal Speed Dial bin assignments.

Feature Operation

To check a Programmable Function Key assignment:

1. Press CHECK



|| N/A



|| SPK flashes fast.

2. Press the Programmable Function Key

The key assignment displays.

3. Press another key or SPK to exit the check mode.

Check Key

To check a Personal Speed Dial bin name and number:

1. Press CHECK.

 || N/A
 || **SPK** flashes fast.

2. Press the Personal Speed Dial Key once to display the name for the lower numbered bin.
For example, pressing bin 1 in this step displays the name for 701.
3. Press the Personal Speed Dial Key a second time to display the number stored in the lower numbered bin.
For example, pressing bin 1 in this step displays the number stored for 701.
4. Press the Personal Speed Dial Key a third time to display the name for the higher numbered bin.
For example, pressing bin 1 in this step displays the name for 711.
5. Press the Personal Speed Dial Key a fourth time to display the number stored in the higher numbered bin.
For example, pressing bin 1 in this step displays the number stored for 711.
6. Press another key or SPK to exit the check mode.

Description



DS1000/2000

- The *Allow Name Programming* and *Allow Language Programming* options require software version 03.10.08 or higher.
- The *Call Screening* option requires software version 03.20.07 or higher.



Customize features and dialing options for extensions.

Class of Service (COS) sets various features and dialing options for extensions. The system allows any number of extensions to share the same Class of Service.

The table below shows each Service Option. Refer to the individual features referenced in the table for more.

Conditions

None

Default Setting

- Extension 300 (normally the attendant) has Class of Service 1.
- All other extensions are normally Class of Service 2.

Option	Description	Entries	Default
Off Premise Call Forward	Use this option to enable or disable an extension's ability to use Off Premise Call Forwarding. (When disabled, the Off Premise Call Forwarding option is hidden on the telephone display.) <ul style="list-style-type: none"> • See <i>Call Forwarding Off Premise</i> on page 75 for more. 	OFF PREM FWRD? Y = Enable N = Disable	N
Barge-In (Intrusion)	Use this option to enable or disable an extension's ability to Barge In on a co-worker. <ul style="list-style-type: none"> • See <i>Barge In (Intrusion)</i> on page 56 for more. 	BREAK-IN? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Extension	Use this option to enable or disable an extension's ability to Camp-On to a busy extension. Enter Y to allow the extension to Camp-On to a busy co-worker. Enter N to prevent the extension from Camping-On to a busy co-worker. Entering N also automatically converts an extension's Camp On to Callback. <ul style="list-style-type: none"> • See <i>Call Waiting / Camp-On</i> on page 88 for more. • See <i>Callback</i> on page 92 for more. 	CAMP-ON BUSY EXT? Y = Enable N = Disable	Y

Class of Service

Option	Description	Entries	Default
Internal Call Forwarding	Use this option to enable or disable an extension's ability to use Internal Call Forwarding and Off Premise Call Forwarding. <ul style="list-style-type: none"> See <i>Call Forwarding</i> on page 63 for more. See <i>Call Forwarding Off Premise</i> on page 75 for more. 	CALL FORWARDING? Y = Enable N = Disable	Y
System Speed Dial Access	Use this option to enable or disable an extension's ability to access System Speed Dial. <ul style="list-style-type: none"> See <i>System Speed Dial</i> on page 481 for more. 	SYS SPDL ACCESS? Y = Enable N = Disable	Y
Extended Ring	Use this option to enable or disable Extended Ringing at the extension. <ul style="list-style-type: none"> See <i>Extended Ringing</i> on page 237 for more. 	EXTENDED RING? Y = Enabled N = Disable	N
Privacy	Use this option to enable or disable Privacy at the extension. <ul style="list-style-type: none"> See <i>Privacy</i> on page 435 for more. 	PRIVACY? Y = Enable N = Disable	N
Trunk (Line) Queuing Priority	Use this option to enable or disable Trunk (Line) Queuing Priority at the extension. If more than one extension with Priority is queued on a busy trunk, the system services the Priority extensions on a first-queued, first-served basis. <ul style="list-style-type: none"> See <i>Trunk Queuing Priority</i> on page 569 for more. 	LINE Q PRIORITY? Y = Enable N = Disable	N
Forced Trunk Disconnect	Use this option to enable or disable an extension's ability to use Forced Trunk Disconnect. <ul style="list-style-type: none"> See <i>Forced Trunk Disconnect</i> on page 271 for more. 	FORCE DISCONNECT? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Line	Use this option to enable or disable an extension's ability to Camp-On to a busy trunk. <ul style="list-style-type: none"> See <i>Trunk (Line) Queuing / Trunk Call-back</i> on page 569 for more. 	CAMP ON TO LINES? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Initiate All Call Page	Use this option to enable or disable an extension's ability to make an All Call Paging announcement. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ALL CALL? Y = Enable N = Disable	Y
Access Page Zone 1	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 1. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 1? Y = Enable N = Disable	Y
Access Page Zone 2	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 2. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 2? Y = Enable N = Disable	Y

Option	Description	Entries	Default
Access Page Zone 3	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 3. • See <i>Paging</i> on page 409 for more.	PAGE ZONE 3? Y = Enable N = Disable	Y
Access Page Zone 4	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 4. • See <i>Paging</i> on page 409 for more.	PAGE ZONE 4? Y = Enable N = Disable	Y
Access Page Zone 5	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 5. • See <i>Paging</i> on page 409 for more.	PAGE ZONE 5? Y = Enable N = Disable	Y
Access Page Zone 6	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 6. • See <i>Paging</i> on page 409 for more.	PAGE ZONE 6? Y = Enable N = Disable	Y
Access Page Zone 7	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 7. • See <i>Paging</i> on page 409 for more.	PAGE ZONE 7? Y = Enable N = Disable	Y
Silent Monitor	Use this option to enable or disable an extension's ability to use Silent Monitor. • See <i>Monitor / Silent Monitor</i> on page 378 for more.	SILENT MONITOR? Y = Enable N = Disable	N
Flash for Single Line Sets	Use this option to enable or disable hook-flash for analog single line extensions and 2-OPX Modules. • See <i>Flash</i> on page 264 for more.	FLASH FOR SLT? Y = Enable N = Disable	Yes
ACD Supervisor	This option is not used.	ACD SUPERVISOR? Y = Enable N = Disable	N
Single Ring for Single Line Sets	Use this option to enable or disable single ring for single line telephones. If enabled, analog single line telephones always receive single ringing for trunk calls. If disabled, trunk ringing at analog extensions always follows the ringing pattern of the trunk. • See <i>Central Office Calls, Answering</i> on page 113 for more.	SINGLE RING? Y = Enable N = Disable	N
View System Alarms	• This option is not used.	VIEW SYS ALARMS? Y = Enable N = Disable	N
Automatic Hold	Use this option to enable or disable Automatic Hold at an extension. • See <i>Hold</i> on page 296 for more.	AUTO HOLD? Y = Enable N = Disable	N

Class of Service

Option	Description	Entries	Default
Activate Night Mode	Use this option to enable or disable an extension's ability to activate Night Service. <ul style="list-style-type: none"> See <i>Night Service / Night Ring</i> on page 389 for more. 	ACTIVATE NITES? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Direct Trunk Access	Use this option to enable or disable an extension's ability to use Direct Trunk Access. Note that enabling Direct Trunk Access allows the user to bypass Toll Restriction. <ul style="list-style-type: none"> See <i>Central Office Calls, Placing</i> on page 119 for more. 	DIRECT TRK ACCES? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Remote Call Forwarding / Alternate Attendant	<ul style="list-style-type: none"> This option is not used. 	REMOTE FWRD? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Soft Keys	Use this option to enable or disable a display set's Interactive Soft Keys. <ul style="list-style-type: none"> See <i>Interactive Soft Keys</i> on page 306 for more. 	SOFTKEYS Y = Enable N = Disable	Y
Conversation Record	Use this option to enable or disable an extension's ability to record conversations into their Voice Mail mailbox. If enabled, the user can press either their Conversation Record key or RECORD soft key to initiate recording. <ul style="list-style-type: none"> See <i>Voice Mail</i> on page 580 for more. 	RECORD CONV Y = Enable N = Disable	N
CLID Display	Use this option to enable or disable Caller ID. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	CLID DISPLAY? Y = Enable N = Disable	Y
2nd Call CLID (Extension Level Call Waiting Caller ID)	Use this option to enable or disable Second Call Caller ID. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	2nd CALL CLID? Y = Enable N = Disable	Y
3rd Party Caller ID	Use this option to enable or disable Third Party Call Caller ID Check. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	3rd PARTY CLID? Y = Enable N = Disable	N
CLID Display Separator	Use this option to enable or disable the Caller ID display separator. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	'-' IN CID DISP? Y = Enable N = Disable	Y
Forced Account Codes	Use this option to enable or disable Forced Account Codes. If disabled, Optional Account Codes are still available. <ul style="list-style-type: none"> See <i>Account Codes</i> on page 24 for more. 	FORCE AC CODES? Y = Enable N = Disable	N
Verify Account Codes	Use this option to enable or disable Verified Account Codes. If enabled, the system compares the Account Code the user dials to the entries in <i>1201 - Verified Account Codes Table</i> on page 721. <ul style="list-style-type: none"> See <i>Account Codes</i> on page 24 for more. 	VERIFY AC CODES? Y = Enable N = Disable	N

Class of Service

Option	Description	Entries	Default
Forced Account Codes for Toll Calls Only	Use this option to enable or disable Forced Account Codes for toll (long distance) calls. If disabled, Forced Account Codes apply to all outgoing trunk calls. <ul style="list-style-type: none"> See <i>Account Codes</i> on page 24 for more. 	AC FOR TOLL ONLY? Y = Enable N = Disable	N
Ring Type Configuration	Use this option to enable or disable Ring Type Configuration. If enabled, the extension user can customize the sound of their Ring Types by pressing their CONFIG (CNFG) soft key. If disabled, the extension user cannot customize their Ring types and the system hides the CONFIG (CNFG) soft key. <ul style="list-style-type: none"> See <i>Distinctive Ringing</i> on page 200 for more. 	RING TYPE CONFIG? Y = Enable N = Disable	N
Extension Ring Override	Use this option to enable or disable an extension's ability to customize the distinctive ringing for Day Ring, Night Ring, and Delay Ring trunk calls on line keys by pressing the ASSIGN (ASGN) soft key. If disabled, the extension cannot customize the distinctive ringing and the system hides the ASSIGN (ASGN) soft key. <p>If you enable this option, and the user customizes their Extension Override settings, disabling this option will cancel the user's custom settings.</p> <ul style="list-style-type: none"> See <i>Distinctive Ringing</i> on page 200 for more. 	EXT RING OVRD? Y = Enable N = Disable	N
Key Ring Override	Use this option to enable or disable Key Ring Override. If enabled, this option allows an extension to customize the distinctive ringing of individual Call Coverage, Group Call Pickup, and Line Keys by pressing the KEY soft key. If disabled (N), the extension cannot customize the distinctive ringing. The default setting for this option is disabled (N). <p>If you enable this option, and the user customizes their Key Ring Override settings, disabling this option will cancel the user's custom settings.</p> <ul style="list-style-type: none"> See <i>Distinctive Ringing</i> on page 200 for more. 	KEY RING OVRD? Y = Enable N = Disable	N
SLT Special Dial Tone	Use this option to enable or disable SLT Special Dial Tone in a single line port's Class of Service. (Note that this option has no effect of keyset ports with the same COS.) <ul style="list-style-type: none"> See <i>Message Waiting</i> on page 368 for more. 	SLT SP DIALTONE? Y = Enable N = Disable	N

Class of Service

Option	Description	Entries	Default
SLT High Voltage Message Waiting	Use this option to enable or disable High Voltage Message Waiting for single line ports. <i>High Voltage Message Waiting is not available in DS1000.</i> If both this option and 0101 - <i>SLT FSK Message Waiting</i> are enabled, the system uses FSK Message Waiting. <ul style="list-style-type: none"> See <i>Message Waiting</i> on page 368 for more. 	SLT MW LAMP HV? Y = Enable N = Disable	N
SLT FSK Message Waiting	Use this option to enable or disable FSK Message Waiting for single line ports. If both this option and 0101 - <i>SLT High Voltage Message Waiting</i> are enabled, the system uses FSK Message Waiting. <ul style="list-style-type: none"> See <i>Message Waiting</i> on page 368 for more. 	SLT MW LAMP FSK? Y = Enable N = Disable	N
SLT Loop Disconnect	Use this option to enable or disable the ability of the system to send a loop supervision disconnect signal (i.e., drop pulse) to single line ports. Set this option for compatibility with the connected SLT device. (This option is always disabled for Voice Mail ports.) <ul style="list-style-type: none"> See <i>Off-Premise Extensions / On-Premise SLT Extensions</i> on page 399 for more. 	SLT LOOP DISCON? Y = Enable N = Disable	N
Enhanced LND	Use this option to enable or disable Enhanced Last Number Redial. If enabled, the extension has Enhanced Last Number Redial with the 5 number redial buffer and the enhanced operation. If disabled, the extension has traditional Last Number Redial with a single number redial buffer and the standard operation. <ul style="list-style-type: none"> See <i>Last Number Redial</i> on page 351 for more. 	ENHANCED LND? Y = Enable N = Disable	Y
Day Walking Class of Service	Use this option to enable or disable Walking Class of Service for the extension while the system is in the day mode. This option affects the extension <i>implementing</i> this feature, not the extension at which the feature is being used. For example, if the extension 301 user goes to extension 305 and tries to use Walking Class of Service during the day, this option must be enabled for extension 301. <ul style="list-style-type: none"> See <i>Walking Class of Service</i> on page 606 for more. 	DAY-WALKING COS? Y = Enable N = Disable	N

Option	Description	Entries	Default
Night Walking Class of Service	<p>Use this option to enable or disable Walking Class of Service for the extension while the system is in the night mode. This option affects the extension <i>implementing</i> this feature, not the extension at which the feature is being used. For example, if the extension 301 user goes to extension 305 and tries to use Walking Class of Service at night, this option must be enabled for extension 301.</p> <ul style="list-style-type: none"> • See <i>Walking Class of Service</i> on page 606 for more. 	<p>NIGHT-WALKING-COS? Y = Enable N = Disable</p>	N
Extension Locking	<p>Use this option to enable or disable Extension Locking for the extension.</p> <ul style="list-style-type: none"> • See <i>Extension Locking</i> on page 256 for more. 	<p>EXT LOCKING? Y = Enable N = Disable</p>	N
DND Override	<p>If enabled, an extension user can dial 1 or press their DND Override soft key to override an extension's Do Not Disturb. If disabled, an extension cannot dial 1 to override an extension's DND and the DND Override soft key is unavailable.</p> <p>This option does not apply when an extension user presses their Hotline key, since Hotline keys always provide the DND Override option.</p> <ul style="list-style-type: none"> • See <i>Do Not Disturb Override</i> on page 224 for more. 	<p>DND OVERRIDE? Y = Enable N = Disable</p>	N
Unsupervised Conference	<p>Use this option to enable or disable Unsupervised Conference for the extension.</p> <p>Also enable this option to use Trunk-To-Trunk Transfer to set up a tandem call. See <i>Using Trunk-To-Trunk Transfer to Set Up a Tandem Call</i> on page 541 for more.</p> <p>This option ensures that enabling <i>1003-Tandem Trunk</i> for Off Premise Call Forwarding does also not inadvertently enable Unsupervised Conference.</p> <ul style="list-style-type: none"> • See <i>Tandem Trunking / Unsupervised Conference</i> on page 538 for more. 	<p>UNSUPERVSD CONF Y = Enable N = Disable</p>	N
Allow DID Calls	<p>Use this option to enable or disable the extension's ability to receive DID calls. If enabled, the extension will receive DID calls routed to it by the system. If disabled, the extension will not receive DID calls.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Dialing</i> on page 155 for more. 	<p>ALLOW DID CALLS? Y = Enable N = Disable</p>	Y

Class of Service

Option	Description	Entries	Default
DID Camp On	Use this option to enable or disable the ability of a DID caller to Camp On to the extension when it is busy. If enabled, DID calls will automated Camp On when routed to the extension while it is busy. If disabled, the incoming call will not Camp On and will instead follow the DID Intercept programming. <ul style="list-style-type: none"> See <i>Direct Inward Dialing</i> on page 155 for more. 	DID CAMP ON? Y = Enable N = Disable	Y
Outgoing ANI Privacy	Use this option to enable or disable the extension's ability to send outbound Automatic Number Identification (ANI) over E1 trunks using MFC dialing. <i>This option only applies to outbound E1 calls using MFC dialing, and does not apply to systems installed in North America</i> <ul style="list-style-type: none"> See <i>T1 Trunking</i> on page 530 for more. 	OTG ANI PRIVACY Y = Enable N = Disable	N
Caller ID Alert Lamp	Use this option to enable or disable the Ring/Message Lamp for Caller ID. If enabled, the lamp will flash whenever the extension receives new Caller ID logs. If disabled, the lamp will not flash for Caller ID. <ul style="list-style-type: none"> See <i>Caller ID Logging</i> on page 102 for more. 	CLID ALERT LAMP? Y = Enable N = Disable	Y
Allow Name Programming (Software version 03.10.08 or higher)	Use this option to enable or disable name programming at an extension. If enabled, the extension user can access name programming via their soft keys. If disabled, name programming is not allowed. <ul style="list-style-type: none"> See <i>Names for Extensions and Trunks</i> on page 384 for more. 	ALLOW NAME PGM? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Allow Language Programming (Software version 03.10.08 or higher)	Use this option to enable or disable an extension's ability to set their display language. If enabled, the extension user can access language programming via their soft keys. If disabled, language programming is not allowed. <ul style="list-style-type: none"> See <i>Language Selection</i> on page 348 for more. 	ALLOW LANG PGM? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Call Screening (Software version 03.20.07 or higher)	Use this option to enable or disable Call Screening. If enabled, a display keyset use can listen to (screen) a voice mail message as it is being left in their mailbox. If disabled, voice mail messages go to the mailbox normally. <ul style="list-style-type: none"> See <i>Call Screening</i> in the <i>IntraMail System Guide</i> for more. 	CALL SCREENING? Y = Enable N = Disable	N

Programming Guide

Step-by-step guide for setting up Class of Service

Step 1: Make a unique Class of Service (1-15) for each set of feature/dialing options the site requires.

- In *Program 0101 - Class of Service Options* (page 617), set up the options for each Class of Service. The system has 15 Classes of Service (1-15).

Step 2: Assign Class of Service to extensions.

- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions. Many extensions can share the same Class of Service. Normally, only the attendant has Class of Service 1.

Programming List

- Program 0101 - Class of Service Options** (page 617)
Set Class of Service options for extensions, OPX trunk and tie lines.
- Program 1001 - Trunk Class of Service Assignment** (page 703)
Assign Class of Service (1-15) to OPX trunks and tie lines.
- Program 1801 - Extension Class of Service Assignment** (page 755)
Assign Class of Service (1-15) to extensions.

Other Related Features

Refer to the Class of Service chart above.

- Attendant Position** (page 37)
By default, the system assigns Class of Service 1 to the attendant. This provides the attendant with Barge In, Call Forwarding Off Premise, Direct Trunk Access, Forced Trunk Disconnect, Night Service, and Trunk Queuing (Camp On) capability.

Feature Operation

None

Conference

Description



DS1000/2000

Available.



A user can set up a multiple-party telephone meeting without leaving the office.

Conference lets an extension user add additional inside and outside callers to their conversation. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions

None

Default Setting

Conference enabled.

Programming Guide

None

Programming List

Program 1803 - Extension Line Access Assignments (page 763)

An extension can join a Conference with a trunk to which they normally cannot access.

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 56)

An extension user can Barge In on a Conference.

Group Listen (page 277)

Meet-Me Conference (page 365)

Monitor / Silent Monitor (page 378)

An extension user cannot Monitor a Conference.

Privacy Release Groups (page 437)

Tandem Trunking / Unsupervised Conference (page 538)

Hold (page 296)

If an extension user places a Conference on Hold, no other participants can place the Conference on Hold, split it, or terminate it.

Off-Hook Signaling (page 394)

After hearing off-hook signals, an extension user can Conference their active call with the waiting call.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

On- and off-premise SLT extensions can use Conference.

Reverse Voice Over (page 459)

An extension user cannot add an incoming Reverse Voice Over call to a Conference.



Voice Over (page 600)

An extension user cannot Voice Over to a co-worker busy on a Conference call.



Feature Operation

To establish a Conference:

1. Establish Intercom or trunk call.

 Conversation with caller.
 **ICM**, Line Key or Loop Key on.

2. Press **CONF**.

 Intercom dial tone.
 *If a trunk call:* **ICM** on and Line/Loop Key flashing.
If an Intercom call: **ICM** on.

Your caller hears Music On Hold (if installed) while they wait for you to set up the Conference.

3. Dial extension you want to add.



OR

Place or answer trunk call

OR

Retrieve call from Park Orbit.

4. Press **CONF** to set up the Conference.

 Conversation with your conferenced callers.
 *If a trunk call:* **ICM** on and Line/Loop Key on.
If an Intercom call: **ICM** on.

If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.

Conference

5. Repeat steps 2-4 to add additional parties to your Conference.

*You can optionally place the Conference on hold. Your callers hear Music on Hold (if installed) while waiting on Hold. Press **ICM** (or line key) + **CONF** to reinstate the Conference.*

To exit a Conference without affecting the other parties:

1. Hang up.

The remaining parties can continue their conversation uninterrupted. If you were in Conference with two trunks, this may set up a tandem call. Refer to Tandem Trunking / Unsupervised Conference on page 538 for more.

To use Conference at an on- or off-premise single line telephone:

1. Establish Intercom or trunk call.

A single line telephone user can place a call and immediately go to step 2 to add another party into the Conference.

2. Hookflash and dial extension or trunk you want to add.

3. Hookflash and dial #10 to set up Conference.

If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.

4. Repeat steps 2 and 3 to add additional parties to your Conference.

Description



DS1000/2000

Available. Refer to *Meet-Me Conference* on page 365 for more.

Conference, Unsupervised

Description



DS1000/2000

|| Available. Refer to *Tandem Trunking / Unsupervised Conference* on page 538 for more.

Description



DS1000/2000

Requires software version 03.10.08 or higher.



Provides cordless mobility and a rich feature set for employees away from their desks.

The DS1000/2000 900 Mhz Cordless Telephone (P/N 80683) is a 900 Mhz digital narrow band FM cordless telephone that provides mobility, flexibility and convenience for those who spend much of the workday away from their desk. Fully integrated with the DS1000/2000 system, DS1000/2000 900 Mhz Cordless Telephone offers many standard features such as Call Forwarding, Call Coverage, Hotline, and Voice Mail. Complemented by 4 fully programmable function keys (with LEDs), the DS1000/2000 900 Mhz Cordless Telephone achieves a whole new level of convenience and mobility. An easy-to-read 16-character by 2-line LCD display (with four status icons), volume controls, a rechargeable Nickel Metal Hydride Battery Pack, and a handy belt clip round out the elegant and affordable DS1000/2000 900 Mhz Cordless Telephone.



Conditions

None

Default Setting

N/A

Programming Guide

Step-by-step guide for setting up the cordless telephone Desk button

Step 1: Do you want use the cordless telephone Desk button to transfer calls to a keyset?

If yes



- In *Program 1802 - Ring Down Destination* (page 761), enter the extension number of the keyset that should receive a transferred call when the cordless user presses their **Desk** button.

If no



- In *Program 1802 - Ring Down Destination* (page 761), do not make an assignment for the cordless telephone extension.

Cordless Telephone

Programming List

Program 1801 - Extension Circuit Type (page 754)

The DS1000/2000 900 Mhz Cordless Telephone auto-IDs with circuit type 50. No additional programming is required for basic feature operation.

Program 1802 - Ring Down Destination (page 761)

For the cordless telephone extension number, use this option to designate the keyset extension associated with the base unit *Desk* button

Other Related Features

Refer to the DS1000/2000 Cordless Telephone User Guide (P/N 80683INS**).

Feature Operation

Refer to the DS1000/2000 Cordless Telephone User Guide (P/N 80683INS**).

Description



DS1000/2000 || Available.



Delayed Ringing helps co-workers cover each other's unanswered calls.

Delayed Ringing allows a trunk to start ringing a preset interval *after* the call starts flashing a line key. This is helpful for co-workers that cover each other's calls. For example, a secretary can have Delayed Ringing for the trunks that ring the boss's telephone. If the boss doesn't answer after the Delayed Ringing interval, the call will start ringing the secretary's extension.

Conditions

None

Default Setting

Trunks 1-8 immediately ring on line keys 1-8.

Programming Guide

Step-by-step guide for setting up Delayed Ringing

Step 1: Should a trunk have delayed ringing on its assigned line key?

If yes



- In *Program 1805 - Ring Assignments* (page 767), enable option 4 for each trunk that should have Delayed Ringing.
- In *Program 0401 - Trunk Delay Ring* (page 644), set the Delay Ring interval to meet the site requirements.

If no



- In *Program 1805 - Ring Assignments* (page 767), select one of the other ring options for each trunk (1 = lamp only day and night, 2 = ringing day and night, 3 = night ring only).

Delayed Ringing

Programming List

Program 0401 - Trunk Delay Ring (page 644)

Set how long the system waits before ringing an extension that has the Delayed Ringing option enabled.

Program 1805 - Ring Assignments (page 767)

For the selected trunk, set the ring assignment to 4 to enable Delayed Ringing. The other options are: 1 (lamp only day and night), 2 (ringing day and night) and 3 (night ring only, lamp during the day).

Other Related Features

Call Coverage Keys (page 59)

Delayed Ringing is also available for Call Coverage Keys.

Distinctive Ringing (page 200)

You can set up Delayed Ringing to ring with a distinctive tone.

Private Line (page 440)

Consider having Delayed Ringing for Private Lines. Users with Delayed Ringing will ring for the Private Line only if it is not answered.

Feature Operation

None

Description



DS1000/2000

Available.



Dial Number Preview helps the user avoid dialing errors.

Dialing Number Preview lets a display keyset user dial and review a number before the system dials it out.

Conditions

None

Default Setting

Enabled

Programming Guide

None

Programming List

None

Other Related Features

Central Office Calls, Placing (page 119)

Dial Number Preview allows an extension user to review a number before the system dials it out.

Feature Operation

To dial using Dial Number Preview:

1. Do not lift the handset, press **SPK** or press **ICM**.

2. Dial *.



N/A



Your display shows: *DIAL PREVIEW*

3. Dial the number you want to call.



N/A



Your display shows the digits dialed, with a cursor (-) after the last digit.

4. Press line key.



Dial tone on the selected trunk, then your digits dialing out.



Line key on (green).

Dial Number Preview

To correct the displayed digits before dialing them out:

1. Use VOL ▲ and VOL ▼ until the cursor replaces the digit you want to change.
VOL ▲ moves the cursor to the left. VOL ▼ moves the cursor to the right.
2. Dial the digit that you want to replace the cursor.
3. Press VOL ▲ and VOL ▼ to place the cursor over any other digits you want to edit.
OR
Press VOL ▼ until the entire number displays to the left of the cursor.
The system will only dial the digits to the left of the cursor.
4. Press a line key to have the system automatically dial the displayed number.

Dial Number Preview Editing Example	
To replace 2049265410 with 2039265400:	
Step 1: Dial * followed by 2049265410. You see:	2049265410-
Step 1: Press Vol ▲ until you see:	20-9265410
Step 2: Dial 3. You see:	203-265410
Step 3: Press VOL ▼ until you see:	20392654-0
Step 4: Dial 0. You see:	203926540-
Step 5: Press Vol ▼ until the entire number displays to the left of the cursor.	2039265400-
Step 6: Press line key to dial number.	

Description



DS1000/2000 || Available.



You can set up the system to detect CO dial tone.

The system can optionally detect precise CO dial tone for automatically dialed trunk calls (such as Speed Dial and Auto Redial calls). With Dial Tone Detection enabled for a trunk, the system will monitor the trunk when initially seized for valid dial tone or stutter dial tone. If valid EIA/TIA dial tone is detected, the system outdials the call on the trunk. If dial tone is not detected within 2 seconds, the system will try the next available trunk in the same trunk group to which the initial trunk belongs. If another trunk in the group is not available, the user hears busy tone.

If Dial Tone Detection is disabled, the system waits 500mS after trunk seizure and then outdials the number.

If enabled, Dial Tone Detection applies to the following types of trunk calls:

- Auto Redial (initial trunk seizure)
- Caller ID (callbacks)
- Last Number Redial
- Call Forwarding Off Premise
- Save
- Speed Dial

Dial Tone Detection *does not* apply to manually dialed trunk calls.

Conditions

None

Default Setting

Enabled

Programming Guide

None

Programming List

Program 1001 - Dial Tone Detection (page 705)

Use this option to enable (Y) or disable (N) Dial Tone Detection for the trunk.

Dial Tone Detection

Other Related Features

Dial Tone Detection applies to the following features:

- **Auto Redial** (page 42)
- **Call Forwarding Off Premise** (page 75)
- **Caller ID Logging** (page 102)
- **Last Number Redial** (page 351)
- **Save Number Dialed** (page 468)
- **Speed Dial** (page 481)

Feature Operation

None

Description

 DS1000	Not available.
DS2000	Available.



Directly dial system extensions from outside the system.

Direct Inward Dialing (DID) lets outside callers directly dial system extensions. DID saves time for callers who know the extension number they wish to reach. To place a DID call, the outside caller dials the local exchange (NXX) and additional digits to ring the telephone system extension. For example, DID number 926-5400 can directly ring extension 400. The caller does not have to rely on an attendant or receptionist to handle the call. Direct Inward Dialing is an efficient way to handle incoming calls, since callers can reach a large block of extensions over a relatively small number of DID trunks. Direct Inward Dialing requires a T1 PCB and T1 DID service and a block (range) of DID numbers from the telco.

In addition to direct dialing of system extensions, DID provides:

- **DID Dialed Number Translation**

The system provides a 100-entry DID Translation Table. This table gives you more flexibility when buying DID service from the telco. If you can't buy the exact block of numbers you need (e.g., 300-399), use the translation table to convert the digits received. For example, a translation table could convert digits 500-599 to extension numbers 300-399.

By default, the system uses the last 2 digits of the received DID number to route to extensions 300-399.
- **Flexible DID Service Compatibility**

You can program the system to be compatible with DID service of varying lengths (up to 8 digits). DID service is typically 3 or 4 digits long. With 4 digit service, the telco sends 4 digits to the system for translation. With 3 digit service, the telco sends 3 digits to the system for translation. Be sure to set up your system for compatibility with the provided telco service. Additionally, the system is compatible with Dial Pulse (DP) and DTMF DID signaling. DID trunks can be either wink start or immediate start.

By default, there are no DID trunks programmed.
- **DID Station Intercept**

DID Station Intercept automatically reroutes DID calls under certain conditions. There are 3 types of DID Station Intercept:

 - **Busy/DND Intercept**

If a caller dials an extension that is busy or in Do Not Disturb, the system routes the call to the extension's programmed DID Station Intercept destination.
 - **Ring No Answer Intercept**

If a caller dials an extension that is unanswered, the system routes the call to the extension's programmed DID Station Intercept destination.
 - **Busy/DND and Ring No Answer Intercept**

If a caller dials an extension that is busy, in Do Not Disturb, or is unanswered, the system routes the call to the extension's programmed DID Station Intercept destination.

By default, DID Station Intercept is disabled for all extensions.

Direct Inward Dialing

- **Trunk Overflow**

If an incoming DID call is not answered at the destination extension or at the programmed intercept destination, it routes according to Trunk Overflow. This ensures that the call has an answering point in the system. Trunk Overflow typically routes to voice mail or to an extension. If the call is not answered at the overflow extension, it normally diverts to Key Ring. If Trunk Overflow is disabled, an unanswered DID call routes to Key Ring (and cannot overflow).

By default, Trunk Overflow is disabled. Unanswered calls route to Key Ring (and cannot overflow).
- **Vacant Intercept**

If a caller misdials or dials an extension that does not exist, or there is a DID Translation Table error, Vacant Intercept routes the call to the programmed Trunk Overflow destination (if programmed). The Trunk Overflow destination can be an extension, UCD Hunting Group, Ring Group, or the Voice Mail Automated Attendant. If Trunk Overflow is disabled, Vacant Intercept routes to Key Ring (and cannot overflow).

Vacant Intercept is always enabled. Since Trunk Overflow is disabled by default, Vacant Intercept by default routes to Key Ring (and cannot overflow).
- **DID Camp-On**

DID Camp-On sets what happens to DID calls to busy extensions when you have Busy/DND Intercept disabled. With DID Camp-On enabled, a call to a busy extension camps-on to the extension. Without DID Camp-On, the caller to the busy extension just hears busy tone (or follows the intercept programming if enabled).

By default, DID Camp-On is disabled.

For outgoing calls, DID trunks operate identically to loop start trunks.

ANI/DNIS Support

The system is compatible with telco's T1 Automatic Number Identification (ANI) and Dialed Number Information Service (DNIS) services. ANI/DNIS services can be provided on T1 loop start, ground start, and DID trunks (but not E&M). ANI/DNIS Compatibility provides:

- **Selectable Receive Format**

You can set up the system for compatibility with any combination of ANI, DNIS and Dialed Number (Address) data provided by the telco.
- **Flexible Routing**

The system can route the incoming call based on the received DNIS data and the entries stored in the DID Translation Table.
- **Caller ID**

The system can use the received ANI data to display the caller's number on the called extension's display. The ANI data can be up to 10 digits long. (Note that the T1 PCB can alternately receive normal FSK-based Caller ID if provided by the telco, but cannot route on that data.)

Conditions

None

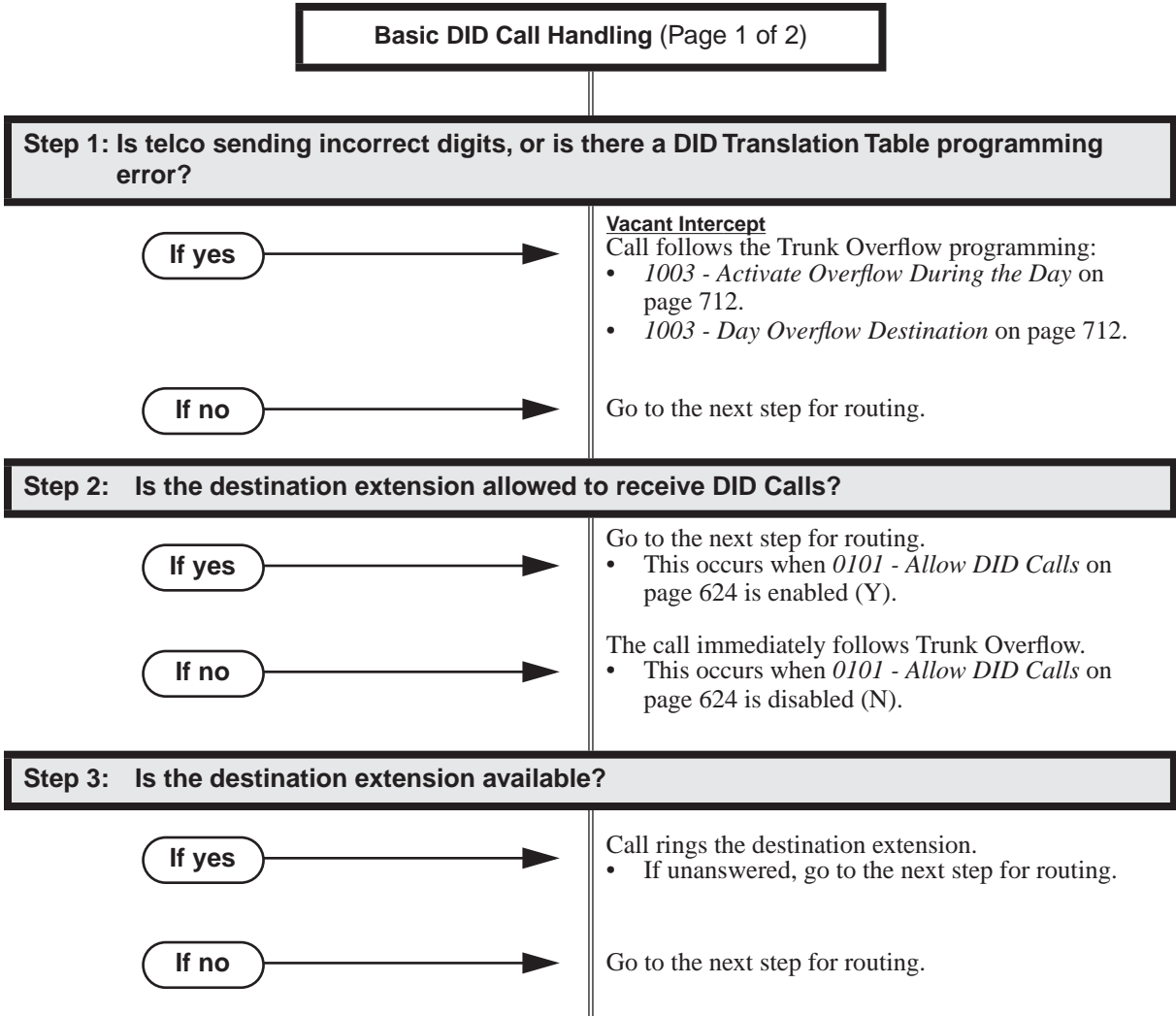
Default Setting

Disabled

DID Call Handling

An Overview of DID Call Handling

The chart below illustrates how the system handles DID calls when the call *is not* intercepted by an extension's Call Forwarding or Extension Hunting.



Direct Inward Dialing

Basic DID Call Handling (Page 2 of 2)

Step 4: Is Station Intercept programmed?

If yes

If the intercept condition is met:

The call routes to the Station Intercept Destination set up in:

- 1801 - DID Station Intercept Destination on page 756.
- 1801 - DID Station Intercept on page 756.

If the intercept condition is not met:

Go to the next step.

If no

Go to the next step for routing.

Step 5: Is DID Camp-On programmed (0101 - DID Camp On on page 624)?

If yes

- If the extension is busy or unanswered, the call follows Trunk Overflow.
- If the extension is in DND, the call won't go through.

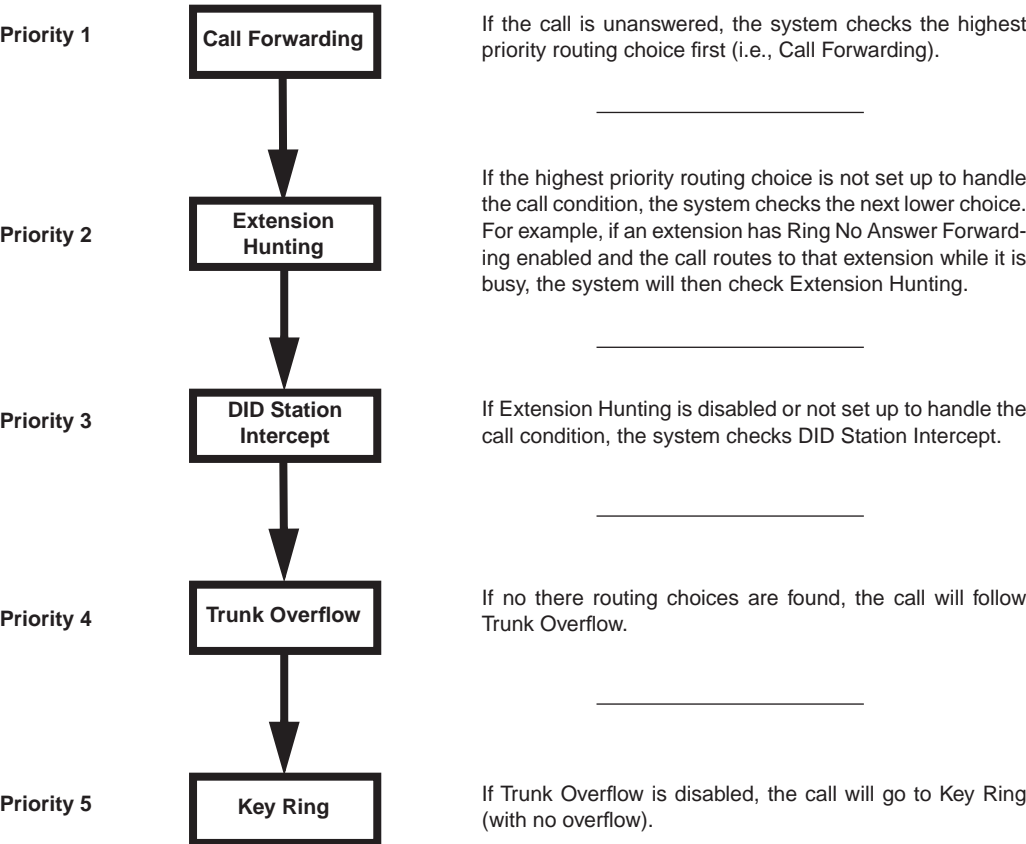
If no

- If the extension is unanswered, the call follows Trunk Overflow.
- If the extension is busy or in DND, the call won't go through.

How Call Forwarding and Extension Hunting Interact with DID Calls

The following chart summarizes how the system handles unanswered DID calls when Call Forwarding and/or Extension Hunting are enabled at an extension. For the specific routing details, see:

- *DID Call Handling with Call Forwarding and Extension Hunting* on page 160.
- *DID Station Intercept and Trunk Overflow* on page 161.



Direct Inward Dialing

DID Call Handling with Call Forwarding and Extension Hunting

The following two tables show the detailed interaction between Call Forwarding and Extension Hunting for unanswered DID Calls. These interactions occur when an extension user enables Call Forwarding and their extension is already part of an Extension Hunting group.

Call Forwarding and Type 1 (Ring No Answer Trunk) Extension Hunting			
Forwarding Type	Destination Extension		
	Ring No Answer	Busy	In DND
Busy/No Answer *32	<ul style="list-style-type: none"> DID call rings destination. If unanswered, it rings the forwarding destination. If still unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> DID call rings forwarding destination. If unanswered, call routes to Trunk Overflow. 	
Immediate *34	<ul style="list-style-type: none"> DID call immediately rings forwarding destination. If unanswered, call routes to Trunk Overflow 		
No Answer *36	<ul style="list-style-type: none"> DID call rings destination. If unanswered, it rings the forwarding destination. If still unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> DID call Camps-On to destination. If unanswered, it rings the forwarding destination. If still unanswered, call routes to Trunk Overflow. 	
Forwarding Off *30	<ul style="list-style-type: none"> DID call rings destination. If unanswered, it rings the hunt destination. If still unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> DID call Camps-On to destination. If unanswered, it rings the hunt destination. If still unanswered, call routes to Trunk Overflow. 	
Call Forwarding and Type 2 (Ring No Answer / Busy Trunk) Extension Hunting and Call Forwarding and Type 3 (Ring No Answer / Busy All) Extension Hunting			
Busy/No Answer *32	<ul style="list-style-type: none"> DID call rings destination. If unanswered, it rings the forwarding destination. If still unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> DID call rings forwarding destination. If unanswered, call routes to Trunk Overflow. 	
Immediate *34	<ul style="list-style-type: none"> DID call immediately rings forwarding destination. If unanswered, call routes to Trunk Overflow 		
No Answer *36	<ul style="list-style-type: none"> DID call rings destination. If unanswered, it rings the forwarding destination. If still unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> DID call rings the hunt destination. If unanswered, call routes to Trunk Overflow. 	
Forwarding Off *30	<ul style="list-style-type: none"> DID call rings destination. If unanswered, it rings the hunt destination. If still unanswered, call routes to Trunk Overflow. 		
All Camp-On and Ring No Answer intervals are set by the 0401 - DIL No Answer time.			

DID Station Intercept and Trunk Overflow

The following two tables show the detailed interaction between DID Station Intercept and Trunk Overflow for unanswered DID Calls. These interactions occur when an extension has DID Station Intercept enabled, the DID trunk has Trunk Overflow enabled, and the call is not intercepted by either Call Forwarding or Extension Hunting.

DID Station Intercept and Trunk Overflow				
Station Intercept	DID Camp-On	Destination Extension		
		Ring No Answer	Busy	In DND
None (0)	1 (Enabled)	<ul style="list-style-type: none"> In unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> Call Camps-On to extension. If unanswered, call routes to Trunk Overflow. 	
	0 (Disabled)	<ul style="list-style-type: none"> In unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> Caller hears busy tone and call does not reroute. 	
Busy / DND (1)	1 (Enabled)	<ul style="list-style-type: none"> In unanswered, call routes to Trunk Overflow. 		
	0 (Disabled)	<ul style="list-style-type: none"> In unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> Call routes to intercept destination. If unanswered, call routes to Trunk Overflow. 	
Ring No Answer (2)	1 (Enabled)	<ul style="list-style-type: none"> If unanswered, call routes to intercept destination. If still unanswered, call routes to Trunk Overflow. 		
	0 (Disabled)	<ul style="list-style-type: none"> If unanswered, call routes to intercept destination. If still unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> Caller hears busy tone and call does not reroute. 	
Busy / Ring No Answer (3)	1 (Enabled)	<ul style="list-style-type: none"> If unanswered, call routes to intercept destination. If still unanswered, call routes to Trunk Overflow. 		
	0 (Disabled)	<ul style="list-style-type: none"> If unanswered, call routes to intercept destination. If still unanswered, call routes to Trunk Overflow. 	<ul style="list-style-type: none"> Call routes to intercept destination. If unanswered, call routes to Trunk Overflow. 	

- All Camp-On and Ring No Answer intervals are set by the **0401 - DIL No Answer** time.
- If the Trunk Overflow destination is an extension, and the DID call is unanswered at that extension, the call diverts to Key Ring.

Direct Inward Dialing

Programming Guide

Step-by-step guide for setting up Direct Inward Dialing (Page 1 of 3)

Step 1: Set the circuit type for each DID trunk.

- Be sure your T1 PCB is installed and connected and that your telco is providing T1 DID service.
- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each DID trunk:
 - 57 = DID DTMF Wink Start
 - 58 = DID Dial Pulse Wink Start
 - 59 = DID DTMF Immediate Start
 - 60 = DID Dial Pulse Immediate Start
- ***If your telco provides DID service using E&M Wink Start DTMF signaling, choose circuit type 57 (DID DTMF Wink Start).***

Step 2: Specify the number of incoming DID digits you expect to receive from the telco.

- In *Program 1401 - Number of DID Digits* (page 732), specify the number of incoming DID digits expected from the telco.

Step 3: Should the extension be allowed to receive DID calls?

If yes



- In *Program 0101 - Allow DID Calls* (page 624), enter Y.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no



- In *Program 0101 - Allow DID Calls* (page 624), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 4: Should DID calls be allowed to Camp On to the extension?

If yes



- In *Program 0101 - DID Camp On* (page 624), enter Y.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no



- In *Program 0101 - DID Camp On* (page 624), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step-by-step guide for setting up Direct Inward Dialing (Page 2 of 3)

Step 5: Should extension have DID Station Intercept?

If yes

- In *Program 1801 - DID Station Intercept Destination* (page 756), assign the extension's DID Station Intercept destination (an extension, UCD master number, Voice Mail master number, or Ring Group master number).
- In *Program 1801 - DID Station Intercept* (page 756), set the condition that will cause DID Station Intercept to occur:
 - 1 = Busy/DND overflow
 - 2 = Ring No Answer overflow
 - 3 = Busy/DND

If no

- In *Program 1801 - DID Station Intercept* (page 756), enter 0 (no intercept).

Step 6: Does an unanswered extension ring the correct amount of time before DID Station Intercept or Trunk Overflow occurs?

If yes

- In *Program 0401 - DIL No Answer* (page 643), leave this timer at its current value.

If no

- In *Program 0401 - DIL No Answer* (page 643), adjust the timer as required.

Step 7: Set up the DID Translation Tables.

- In *Program 1402 - DID Translation Table* (page 733), configure the DID Translation Table.

Step 8: Should the system provide Trunk Overflow for the DID trunk during the day?

If yes

- In *Program 1003 - Activate Overflow During the Day* (page 712), enter Y to enable Trunk Overflow during the day.
- In *Program 1003 - Day Overflow Destination* (page 712), set the day overflow destination. The destination can be an extension (300-427), UCD master number, Voice Mail master number, Ring Group master number, or Key Ring (by pressing CLEAR)

If no

- In *Program 1003 - Activate Overflow During the Day* (page 712), enter N to disable Trunk Overflow during the day. When disabled, an unanswered DID call during the day diverts to Key Ring without overflow (unless intercepted by another feature).

Direct Inward Dialing

Step-by-step guide for setting up Direct Inward Dialing (Page 3 of 3)

Step 9: Should the system provide Trunk Overflow for the DID trunk at night?

If yes

- In *Program 1003 - Activate Overflow at Night* (page 713), enter Y to enable Trunk Overflow during at night.
- In *Program 1003 - Night Overflow Destination* (page 713), set the night overflow destination. The destination can be an extension (300-427), UCD master number, Voice Mail master number, Ring Group master number, or Key Ring (by pressing CLEAR)

If no

- In *Program 1003 - Activate Overflow at Night* (page 713), enter N to disable Trunk Overflow at night. When disabled, an unanswered DID call at night diverts to Key Ring without overflow (unless intercepted by another feature).

Step 10: Do the T1 Trunks provide ANI/DNIS services.

If yes

- In *Program 1001 - Caller ID* (page 704), enter 3 to enable ANI-based Caller ID for the trunk.
- In *Program 1001 - ANI/DNIS* (page 704), specify the type of ANI/DNIS data received from the telco:
 - 0 = No ANI/DNIS data
 - 1 = ANI
 - 2 = *ANI*
 - 3 = *DNIS*
 - 4 = *ANI*DNIS*
- In *Program 1001 - ANI Delimiter* (page 705), indicate the type of ANI delimiter provided by the telco (for options 2-4 in the previous bullet only). The delimiter can be any character 0-9, # or *. (Normally, the delimiter is *.)
- In *Program 1001 - Number of ANI Digits* (page 705), specify the number of digits the telco provides in the ANI number (for option 1 only). This program does not apply to options 2-4 (which use delimiters).

If no

- In *Program 1001 - Caller ID* (page 704), do not enter 3 to enable ANI-based Caller ID for the trunk.

Programming List

Direct Inward Dialing Programming

Program 0101 - Allow DID Calls (page 624)

Use this option to enable (Y) or disable (N) the extension's ability to receive DID calls.

- If enabled, the extension will receive DID calls routed to it by the system.
- If disabled, the extension will not receive DID calls. If a DID call attempts to route to an extension with this option disabled, the call follows Trunk Overflow.
- By default, this option is enabled (Y).

Program 0101 - DID Camp On (page 624)

Use this option to enable (Y) or disable (N) the ability of a DID call to Camp On to the extension when it is busy.

- If enabled, a DID call to the extension will Camp On for the **0401 - DIL No Answer Time**. If still unanswered, the call will divert to Key Ring.
- If disabled, the incoming call will not Camp On and the caller will hear busy tone.
- By default, this option is enabled (Y).

Program 0401 - DIL No Answer (page 643)

Use this option to set the interval after which Vacant Intercept and ring-no-answer DID Overflow occur.

Program 1001 - Trunk Circuit Type (page 699)

Set the circuit type for each DID trunk (see the following chart).

1001-Trunk Circuit Types		
Circuit Type	Description	Entry
57	DID DTMF Wink Start	DID DTMF WINK
58	DID Dial Pulse Wink Start	DID PULSE WINK
59	DID DTMF Immediate Start	DID DTMF IMM
60	DID Dial Pulse Immediate Start	DID PULSE IMM

- *If your telco provides DID service using E&M Wink Start DTMF signaling, choose circuit type 57 (DID DTMF Wink Start).*

Program 1003 - Activate Overflow During the Day (page 712)

Use this option to enable (Y) day mode Trunk Overflow for the trunk. If disabled (N), an unanswered DID call during the day diverts to Key Ring without overflow (unless intercepted by another feature).

Program 1003 - Day Overflow Destination (page 712)

If day overflow is enabled, use this option to set the day overflow destination. The destination can be an extension (300-427), UCD master number, Voice Mail master number, Ring Group master number, or Key Ring (by pressing CLEAR)

Program 1003 - Activate Overflow at Night (page 713)

Use this option to enable (Y) night mode Trunk Overflow for the trunk. If disabled (N), an unanswered DID call at night goes to Key Ring without overflow (unless intercepted by another feature).

Program 1003 - Night Overflow Destination (page 713)

If night overflow is enabled, use this option to set the night overflow destination. The destination can be an extension (300-427), UCD master number, Voice Mail master number, Ring Group master number, or Key Ring (by pressing CLEAR)

Program 1401 - Number of DID Digits (page 732)

Use this option to specify the number of incoming DID digits (1-8) expected from the telco. This entry should match the type of DID service the telco provides. The DID Translation Table will use the last 3 digits provided by telco for routing and ignore the rest. By default, this option is 3 digits.

Direct Inward Dialing

Program 1402 - DID Translation Table (page 733)

Use this option to set up the system's DID routing. The DID Translation Table analyzes the DID string received from the telco and routes it to the corresponding extension. You make separate day and night routing entries. The DID Translation Table has 100 entries. Allowable entries are 0-9, with * used as a wild card (representing any digit).

Example: Routing DID Block 400-416

For example, to have DID block 400-416 route to extensions 300-316 during the day and 300 at night

- For table entry 1, enter 4**.
This entry will route all DID digits in the 400-499 range.
- For the day route, enter 3**.
The system will strip off the leading digit (4), replace it with 3, and route to extensions 300-399.
- For the night route, enter 300.
All calls go to extension 300 when the system is in the night mode.

Default Routing

By default, the system uses the last 2 digits of the DID string to route to extensions 300-399. This happens because:

- The first entry in the table is *** (i.e., wild card representing any received 3-digit string)
- The day routing is 3** (i.e., the last 2 digits of the received string are used to route to the corresponding extension beginning with 3). For example, a DID block of 400-499 routes to extensions 300-399.
- Since the night route is not programmed, night routing follows the day route setting.

Programming Ranges and Exceptions

When programming a range and exceptions into the DID Translation Table, be sure to put the exceptions in the table first. The following tables show both the correct and incorrect method of setting this up.

Ranges and Exceptions – Correct Configuration			
Table Entry	Digits Received	Day Route	Night Route
01	301	303	700
02	302	304	700
03	3**	3**	

- Calls to 301 route to 303 in the day and the Automated Attendant at night.
- Calls to 302 route to 304 in the day and the Automated Attendant at night.
- All other calls in the 3xx range route to their respective extensions.

Ranges and Exceptions – Incorrect Configuration			
Table Entry	Digits Received	Day Route	Night Route
01	3**	3**	
02	301	303	700
03	302	304	700
<ul style="list-style-type: none"> • In the day, all calls in the 3xx range route to their respective extensions. The day mode exception routing for 301 and 302 is ignored. • Only at night is the exception routing for 301 and 302 in force. 			

Note: The number of digits in your DID entry should match the setting of the **1401-Number of DID Digits** option.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1801 - DID Station Intercept Destination (page 756)

Use this option to set the extension's DID Intercept destination. When DID Intercept occurs, the incoming DID call routes to the destination specified in this option. The destination can be:

- An extension (300-427)
- UCD master number
- Voice Mail master number (to route to the extension's mailbox)
- Ring Group master number.

By default, the DID Overflow destination is extension 300.

For Ring No Answer Intercept, intercept occurs after the **0401 - DIL No Answer** interval. If the call is not picked up at the intercept destination (or intercept is not programmed to pick up the call), the call follows the trunk overflow routing.

Program 1801 - DID Station Intercept (page 756)

Use this option to set the extension's DID Intercept mode. Intercept can occur when the extension is busy, in Do Not Disturb, or unanswered. By default, DID Intercept is disabled (0). The following table shows the options:

1801-DID Intercept Options	
Option	Description
0	No intercept
1	Busy/DND <ul style="list-style-type: none"> • DID Intercept occurs when the extension is busy or in Do Not Disturb.
2	Ring No Answer <ul style="list-style-type: none"> • DID Intercept occurs when the extension is unanswered.
3	Busy/DND and Ring No Answer <ul style="list-style-type: none"> • DID Intercept occurs when the extension is busy, in Do Not Disturb, or is unanswered.

Direct Inward Dialing

ANI/DNIS Programming

Program 1001 - Caller ID (page 704)

Enter 3 to enable ANI-based Caller ID for the trunk.

Program 1001 - ANI/DNIS (page 704)

Use this option to specify the type of ANI/DNIS Caller ID data provided by T1 trunks. Set this option for compatibility with the incoming ANI/DNIS data provided by the local telco. By default, this option is 0 (No ANI/DNIS data). When entering data, the options are:

ANI/DNIS Data Format		
Option	Description	Entry
0	The DID trunk will not detect ANI/DNIS data.	NONE
1	The DID trunk will detect ANI data without using delimiters	ANI
2	The DID trunk will detect ANI data using a delimiter (*) at the beginning and end of the ANI Caller ID string.	*ANI*
3	The DID trunk will detect DNIS data using a delimiter (*) at the beginning and end of the DNIS string.	*DNIS*
4	The DID trunk will detect both ANI and DNIS data using a delimiter (*) at the beginning and end of the string. An additional delimiter separates the ANI and DNIS data.	*ANI*DNIS*

Program 1001 - ANI Delimiter (page 705)

For ANI/DNIS format options 2-4 (see 1001 - ANIS/DNIS above), use this option to set the type of data delimiter provided by the telco. The delimiter designates the beginning and end of the ANI/DNIS data string. The delimiter can be any character 0-9, # or *. Always set this option for compatibility with the incoming ANI/DNIS data provided by the local telco. By default, the ANI delimiter is *.

Program 1001 - Number of ANI Digits (page 705)

For ANI/DNIS format option 1 (see 1001 - ANI/DNIS above), use this option to specify the number of digits in the ANI number. This is required for option 1 since delimiters do not mark the beginning and end of the data string. The system must know how many digits of incoming ANI Caller ID data to interpret. By default, this option is 10.

Other Related Features

Extension Hunting (page 239)

Extension Hunting has priority over DID Station Intercept and DID Trunk Overflow. For example, if an extension has a Type 3 (Ring No Answer/Busy All) hunt to voice mail and a Type 3 DID Station Intercept to the operator, unanswered calls will route to voice mail. See the *IntraMail System Guide* for more on *Extension Hunting to Voice Mail*.

T1 Trunking (page 530)

T1 provides advanced digital trunking and simplifies installation. T1 Trunking is required for Direct Inward Dialing.

Tie Lines (page 542)

Link two systems together for inter-system Intercom calling and other features.

Transfer (page 558)

Transfer recalls do not follow DID Station Intercept.

Feature Operation

None

Direct Inward Line

Description



DS1000/2000

|| Available.



A DIL lets an employee know which calls are just for them.

A Direct Inward Line (DIL) is a trunk that rings an extension directly. Since DILs only ring one extension, employees always know which calls are for them. For example, a company operator can have a Direct Inward Line for International Sales Information. When outside callers dial the DIL's phone number, the call rings the operator on the International Sales line key. The DIL does not ring other extensions.

Assigning a DIL to an extension automatically provides immediate ringing and incoming access for the trunk, with no additional programming required.

The extension to which the trunk is terminated controls the night mode of the trunk. For example, if extension 301 has trunk 1 assigned as a DIL, the user can press **DND** to switch trunk 1 to its night routing destination. Switching trunk 1 to night mode at extension 304 has no effect on the night mode of the system. This flexibility could allow a service dispatcher with several DILs to independently send trunks to their night destinations without affecting the night mode of the entire system.

A DIL can ring:

- Extension numbers (including the attendant's extension)
- Ring Group master numbers
- UCD Group master numbers (including the Voice Mail master number)

Overflow for Direct Inward Lines

If unanswered, DILs calls can route to a programmed overflow destination. The overflow destination can be an extension, Ring Group, UCD Group or Voice Mail (i.e., DIL destination's mailbox). You can set up separate DIL overflow destinations for the day mode and at night. If unanswered at the overflow destination, the call diverts to Key Ring.

Conditions

None

Default Setting

No DILs assigned.

Programming Guide

Step-by-step guide for setting up Direct Inward Line (Page 1 of 3)

Step 1: Check to be sure each trunk's circuit type matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP).

Step 2: Assign the DIL day mode destination.

- In *Program 1003 - Direct Termination (Day)* (page 712), assign the DIL day mode termination. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Step 3: Do you want an unanswered DIL to overflow during the day mode?

If yes



If no



- In *Program 1003 - Activate Overflow During the Day* (page 712), enter Y.
- In *Program 1003 - Activate Overflow During the Day* (page 712), enter N.

Step 4: Assign the DIL day overflow destination.

- In *Program 1003 - Day Overflow Destination* (page 712), assign the DIL day mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 5: Assign the DIL night mode destination.

- In *Program 1003 - Direct Termination (Night)* (page 713), assign the DIL night mode termination. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number. (An extension puts their DIL in the night mode by pressing DND.)

Direct Inward Line

Step-by-step guide for setting up Direct Inward Line (Page 2 of 3)

Step 6: Do you want an unanswered DIL to overflow during the night mode?

If yes

- In *Program 1003 - Activate Overflow at Night* (page 713), enter Y.

If no

- In *Program 1003 - Activate Overflow at Night* (page 713), enter N.

Step 7: Assign the DIL night overflow destination.

- In *Program 1003 - Night Overflow Destination* (page 713), assign the DIL night mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 8: Does extension have a line key for their DIL?

If yes

- In *Program 1701 - Line Key* (page 737), no programming changes are required.

If no

- In *Program 1701 - Line Key* (page 737), make sure the DIL has a line key assigned (code 03). DILs can optionally ring Loop Keys (codes 01 and 02).

Step 9: Do you want to put the DIL on a DSS Console key?

If yes

- In *Program 1704 - Line Key* (page 747), make sure the DIL has a DSS Console line key assigned (code 03).

If no

- In *Program 1704 - Line Key* (page 747), make sure the DIL does not have a DSS Console line key assigned (code 03).

Step 10: If a DIL to an extension is unanswered, does call divert to its overflow destination (if programmed) or Key Ring (if no overflow exists) after the proper interval?

If yes

- In *Program 0401 - DIL No Answer* (page 643), leave the DIL No Answer time at its current setting.

If no

- In *Program 0401 - DIL No Answer* (page 643), change the DIL No Answer time to meet the site requirements.

Step-by-step guide for setting up Direct Inward Line (Page 3 of 3)

Step 11: If a DIL to a Ring Group master number is unanswered, does call divert to its overflow destination (if programmed) or Key Ring (if no overflow exists) after the proper interval?

If yes

- In *Program 0401 - Trunk Revert* (page 644), leave the Trunk Revert time at its current setting.

If no

- In *Program 0401 - Trunk Revert* (page 644), change the Trunk Revert time to meet the site requirements.

Step 12: If DIL is unanswered at the overflow destination, does call divert to Key Ring after the proper interval.

If yes

- In *Program 0401 - Transfer Recall* (page 642), leave the Transfer Recall time at its current setting.
- In *Program 1805 - Ring Assignments* (page 767), make sure you have extensions assigned to Key Ring.

If no

- In *Program 0401 - Transfer Recall* (page 642), change the Transfer Recall time to meet the site requirements.
- In *Program 1805 - Ring Assignments* (page 767), make sure you have extensions assigned to Key Ring.

Step 13: If DIL is terminated to Voice Mail or a UCD master number, set up a Night key that controls the night mode status of the DIL.

- In *Program 1701 - Night Key* (page 740), set up a Night (System Mode UCD Master) key for the Voice Mail master number (code 18 + Voice Mail or UCD master number)
OR
- In *Program 1704 - Night Key* (page 749), set up a Night (System Mode UCD Master) key for the Voice Mail master number (code 18 + Voice Mail or UCD master number).

Direct Inward Line

Programming List

Program 0401 - DIL No Answer (page 643)

When the DIL destination is an extension:

If DIL Overflow is set up, this interval determines how long a DIL rings its destination before ringing its programmed overflow destination. If DIL Overflow is not set up, this interval determines how long a DIL rings its destination before diverting to Key Ring.

Program 0401 - Trunk Revert (page 644)

When the DIL destination is a Ring Group master number:

If DIL Overflow is set up, this interval determines how long a DIL rings its destination before ringing its programmed overflow destination. If DIL Overflow is not set up, this interval determines how long a DIL rings its destination before diverting to Key Ring.

Program 0401 - Transfer Recall (page 642)

This interval sets how long a call will ring the day or night overflow destination before diverting to key ring.

Program 1001 - Trunk Circuit Type (page 699)

Set the trunk's circuit type for compatibility with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1003 - Direct Termination (Day) (page 712)

Set the day termination (answering point) for the DIL. The DIL rings the answering point directly. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Program 1003 - Activate Overflow During the Day (page 712)

Enter Y to enable DIL overflow during the day mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Program 1003 - Day Overflow Destination (page 712)

Set the overflow destination for day mode calls. The overflow destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Program 1003 - Direct Termination (Night) (page 713)

Set the night termination (answering point) for the DIL. The DIL rings the answering point directly. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Program 1003 - Activate Overflow at Night (page 713)

Enable Y to enable DIL overflow during the night mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Program 1003 - Night Overflow Destination (page 713)

Set the overflow destination for night mode calls. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Program 1701 - Line Key (page 737)

Make sure the extension has a line key (code 03) for the DIL.

Program 1701 - Night Key (page 740)

If the DIL is terminated to a Voice Mail or UCD master number, a Night (System Mode UCD Master) key (code 18 + the Voice Mail or UCD master number) controls the night mode of the DIL.

Program 1704 - Line Key (page 747)

The extension can optionally have a line key (code 03) for their DIL on a DSS Console.

Program 1704 - Night Key (page 749)

If the DIL is terminated to a Voice Mail or UCD master number, a Night (System Mode UCD Master) key (code 18 + the Voice Mail or UCD master number) controls the night mode of the DIL.

Program 1805 - Ring Assignments (page 767)

Make sure you have extensions assigned to Key Ring.

Other Related Features

Call Forwarding (page 63)

Call Forwarding will reroute an extension's DILs.

Call Waiting / Camp-On (page 88)

A DIL to a busy extension will send Camp-On tones (if the extension is programmed to normally receive Camp-On tones).

Central Office Calls, Answering (page 113)**Central Office Calls, Placing** (page 119)

Refer to these features to set additional parameters for trunks (such as transmit gain, receive gain and sidetone level). In addition, extension users can place calls on DILs, just like other trunks (depending on programming).

Delayed Ringing (page 149)

DILs automatically override Delayed Ringing.

Paging (page 409)

DILs cannot ring over the External Paging speakers or activate the page relay.

Do Not Disturb (page 220)

Enabling Do Not Disturb at an extension puts that extension's DILs into Night Mode.

Extended Ringing (page 237)

With Extended Ringing enabled, DIL trunks ring for the *Number of Extended Rings* before routing to the overflow destination.

Extension Hunting (page 239)

DILs to a Circular or Terminal Hunting group member initiate hunting. In addition, DILs to a UCD master number ring the UCD group directly.

Group Ring (page 279)

A DIL can ring a Ring Group master number.

Key Ring (page 344)

An unanswered DIL diverts to all extensions with Key Ring for the trunk.

Line Keys (page 356)**Loop Keys** (page 360)

When you assign a trunk as a DIL, it continues to flash its previously programmed line/loop key assignments. It will not, however, ring those phones.

Names for Extensions and Trunks (page 384)

Programming names for DILs makes it easier to identify incoming callers.

Night Service / Night Ring (page 389)

The extension to which the DIL is terminated controls the night mode of the DIL by pressing their DND key.

Off-Hook Signaling (page 394)

A DIL ringing a busy extension can automatically initiate Off-Hook Signaling.

Paging (page 409)

DILs cannot ring over the External Paging speakers or activate the page relay.

Prime Line Preference (page 431)

If an extension's Prime Line is another extension's DIL, lifting the handset will answer the call even though it does not ring the phone.



Voice Mail (page 580)

- The Voice Mail Automated Attendant will answer a DIL terminated to the Voice Mail Master Number.
- If a DIL is terminated to the Voice Mail master number, a System Mode key (code 18 + the Voice Mail number) controls the night mode status of the DIL.



Direct Inward Line

Feature Operation

To answer a call on your Direct Inward Line:

		Ringing.
		DIL's line key flashing (green).

1. Lift handset.

		Conversation with caller.
		DIL's line key on (green).

To place your DIL into Night Mode

1. Press **DND**.

		N/A
		DND flashes.

This also enables Do Not Disturb at the extension.

Direct Station Selection (DSS)

Description



DS1000/2000

DSS keys disabled by default.



Quickly place and Transfer calls to co-workers, without having to look up or dial extension numbers.

Important

- If you enable an extension's DSS Keys and leave the extension's default Prime Line programming intact, the line keys automatically change to DSS keys when the user lifts the handset. *To avoid confusion, be sure to explain this to your users.*
- You may prefer to use the **Call Coverage Keys** (page 59) or **Hotline** (page 302) features instead. Remember, in addition to providing one-button Intercom access and Transfer, Call Coverage Keys also provide call pickup capability.

If an extension's Direct Station Selection (DSS) Keys are enabled, Programmable Function Keys *automatically* become Direct Station Selection (DSS) keys when the user presses **ICM**. Direct Station Selection provides an extension user with one-button Intercom access and Transfer to co-workers. Each DSS key also provides a Busy Lamp Field (BLF) for the assigned co-worker.

When the DSS/BLF key is:

Off

On

Flashing fast

The covered extension is:

Idle

Busy or ringing

In Do Not Disturb

Conditions

DSS keys do not pick up ringing calls.

Default Setting

Not assigned. DSS capability is disabled.

Direct Station Selection (DSS)

Programming Guide

Step-by-step guide for setting up Direct Station Selection

Step 1: Should extension have DSS capability on their programmable keys?

If yes

- In *Program 1802 - Busy Lamp Field* (page 759), enter Y.
- In *Program 1807 - Prime Line Type* (page 772), turn off Intercom Prime Line to prevent the extension's line keys from switching to DSS mode when the user lifts the handset while idle.

If no

- In *Program 1802 - Busy Lamp Field* (page 759), enter N.

Step 2: Should extension have preprogrammed DSS keys?

If yes

- In *Program 1703 - DSS Key Assignment* (page 745), program the extension's DSS assignments.

If no

- In *Program 1703 - DSS Key Assignment* (page 745), leave the extension's DSS keys unassigned.

Programming List

Program 1703 - DSS Key Assignment (page 745)

Program the extension's DSS assignments.

Program 1802 - Busy Lamp Field (page 759)

Enter Y to enable DSS capability for an extension's programmable keys.

Program 1807 - Prime Line Type (page 772)

If you enable DSS capability in the option above, consider turning off Intercom Prime Line in this program. If you don't, the extension's line keys switch to DSS mode whenever the user lifts the handset while idle. (If a trunk call is ringing the phone, *Ringing Line Preference* will normally answer the call when the user lifts the handset — even with Intercom Prime Line enabled.)

Other Related Features

Intercom (page 339)

A user can press a DSS key as an alternative to dialing Intercom numbers.

Prime Line Preference (page 431)

With Intercom Prime Line, an idle extension user hears Intercom dial tone whenever they lift the handset or press **SPK**. Since each extension's Busy Lamp Field is disabled by default, the Programmable Function Keys do not go into the DSS mode when the user lifts the handset while idle. (If a trunk call is ringing the phone, *Ringing Line Preference* will normally answer the call when the user lifts the handset — even with Intercom Prime Line enabled.)

Direct Station Selection (DSS)

Speed Dial (page 481)

The Personal Speed Dial Keys also provide one-button access to extensions.


Transfer (page 558)

You can press your DSS key to Transfer a call instead of dialing a co-worker's extension number.





Voice Over (page 600)

An extension can Voice Over after using Direct Station Selection to call a co-worker.







Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
DSS	#BLF	#BLF + Press DSS key + HOLD + Enter extension + VOL ▲ + Program another key or SPK to exit.	1-5

To place a call to a co-worker using a DSS key:

- Lift handset.
- Press **ICM**.
 -  Intercom dial tone.
 -  DSS keys show status of covered co-workers (off = idle, on = busy or ringing, flashing fast = in Do Not Disturb).
- Press DSS key for co-worker you want to call.
 -  Two beeps or ringing.
 -  N/A

To Transfer a call to a co-worker using a DSS key:

- Place or answer trunk call.
 -  Conversation with caller.
 -  Line or Loop Key on (green).
- Press **ICM**.
 -  Intercom dial tone.
 -  DSS keys show status of covered co-workers (off = idle, on = busy or ringing, flashing fast = in Do Not Disturb).
- Press DSS key for co-worker.
 -  Two beeps or ringing.
 -  N/A
- Hang up to have the Transfer go through unscreened.
OR
Wait for the called party to answer if you want them to screen the Transfer.

Direct Station Selection (DSS) Console

Description



DS1000/2000

- DS1000 and DS2000 have unique default settings for the 110-Button DSS Console.
- One-touch Message Center key operation available in software version 03.10.12 or higher.
- Conversation Record to a co-worker's mailbox requires system software version 03.20.07 or higher.



DSS Consoles provide one-touch access to extensions, trunks and system features.

The DSS Console gives a 34-Button Display or 34-Button Super Display user one-button access to extensions, trunks, and selected system features. This saves time for users that do a lot of call processing (such as operators or dispatchers). There are two DSS Consoles types: the 24-Button (P/N 80556) and the 110-Button (P/N 80555).

Figure 8: 24-Button and 110-Button DSS Consoles



The system allows you to install 4 DSS Consoles maximum. In addition, System Load Factor may further reduce the number that you can install. See *DS2000 Load Factor* on page 3 for more on the System Load Factor. You cannot connect multiple DSS Consoles to the same keyset. DSS Consoles do not use a station port and do not require their own power supply.

The system provides four unique DSS configurations (called blocks). If you want your DSS Consoles to have unique key configurations, assign them to different blocks. If you want your consoles to share the same configuration, assign them to the same block. Note that DSS Console Personal Speed Dial bins are the same as the extension to which the console is attached. This means that DSS Consoles that share the same block number still have unique Personal Speed Dial.

Direct Station Selection (DSS) Console

You can assign DSS Console keys to the following functions:

- Account Code
- ACD Log On (future)
- Call Coverage (immediate, delayed or no ring)
- Call Forwarding
- Data (future)
- Group Pickup (immediate, delayed or no ring)
- Headset Key
- Hotline
- ICM Directory
- Message Center
- Multiple Directory Numbers (future)
- Night Key
- Page Zones
- Park Orbit
- Reverse Voice Over
- Save
- Speed Dial, Personal
- Speed Dial, System
- Split
- Trunks (line keys)
- Voice Mail Record

Conditions

- You cannot connect a DSS Console to a 22-button telephone.
- You must consider the System Load Factor when installing DSS Consoles. See *DS2000 Load Factor* on page 3 for more.

Direct Station Selection (DSS) Console

Default Setting

DS2000 DSS Console Default Assignments	
These keys:	Have this function:
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-96	Hotlines to extensions 300-395
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night (System Mode System) key

DS1000 DSS Console Default Assignments	
These keys:	Have this function:
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-34	Hotlines to extensions 300-333
35-96	Undefined
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night (System Mode System) key

Direct Station Selection (DSS) Console

Programming Guide

Step-by-step guide for setting up DSS Consoles

Step 1: Does the extension have a DSS Console connected?

If yes

- In *Program 1801 - DSS Type* (page 754), enter 1 if the extension has a 24-button console connected. Enter 2 if the extension has a 110-button console connected. You cannot have more than 4 DSS Consoles installed.

If no

- In *Program 1801 - DSS Type* (page 754), enter 0 if the extension does not have a DSS Console connected.

Step 2: Should the DSS Console have unique programming, not available on any other DSS Console?

If yes

- In *Program 1801 - DSS Block Number* (page 755), be sure to choose a block (1-4) that is not assigned to any other extension in the system.

If no

- In *Program 1801 - DSS Block Number* (page 755), assign the same block to extensions that should share DSS Console programming.

Step 3: Do you want to change the DSS Console assignments from their default settings?

If yes

- In *Program 1704 - 1704 - DSS Console Key Assignment* (page 746), customize the key assignments to meet the application requirements.

If no

- In *Program 1704 - 1704 - DSS Console Key Assignment* (page 746), leave the DSS Console assignments at their default settings.

Programming List

Program 1704 - DSS Console Key Assignment (page 746)

Assign the keys for the system's DSS Consoles.

Program 1801 - DSS Type (page 754)

Specify the type of DSS Console plugged into the telephone (1 = 24-button, 2 = 110-button, 0 = unassigned). You cannot install more than 4 DSS Consoles.

Program 1801 - DSS Block Number (page 755)

Use this option to assign a DSS block to the console.

Direct Station Selection (DSS) Console

The following table shows the DSS Console key options (assigned in Program 1704):

Table 4: Program 1704 - DSS Console Key Assignment (Page 1 of 2)

Option	Description	Key Code
Undefined	Use this option to designate a key as undefined (no function).	00
Line Key	Use this option to assign a programmable key as a line key.	03 + nn (trunk number)
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key.	04 + n (Park Orbit 60-69)
Hotline Key	Use this option to assign a programmable key as a Hotline key. A DSS Console can also have a Hotline key for a trunk (e.g., 101). However, this capability requires that Direct Trunk Access be enabled for the extension. See <i>Direct Trunk Access</i> on page 191 for more. A keyset user with a DSS Console can use the #HL user-programmable procedure to change the Hotline assignments on their console.	05 + nnn (extension number)
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key.	06 + nnn (extension number)
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key.	07 + nnn (extension number)
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ringing Call Coverage Key.	08 + nnn (extension number)
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediately ringing Group Call Pickup key.	09 + nn (Pickup Group 01-16)
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key.	10 + nn (Pickup Group 01-16)
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key.	11 + nn (Pickup Group 01-16)
Page Zone Key	Use this option to assign a programmable key as a Page Zone key.	13 + n (Page Zone 1-7, 0 for All Call)
System Speed Dial Key	Use this option to assign a programmable key as a System Speed Dial key. You assign the key to specific System Speed Dial bin.	14 + nnn (System Speed Dial bin, normally 200-299)
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin.	15 + nnn (701-720)
Voice Mail Record Key	Use this option to assign a programmable key as a Voice Mail Record key.	17 + nnn (extension number of valid Subscriber Mailbox)

Direct Station Selection (DSS) Console

Table 4: Program 1704 - DSS Console Key Assignment (Page 2 of 2)

Option	Description	Key Code
Night Key	Use this option to assign a programmable key as a Night key. There are two options: <i>System Mode System</i> key and <i>System Mode UCD Master</i> key. The System Mode System key puts all Key Ring trunks and trunks terminated to Ring Group master numbers in the night mode. The System Mode UCD Master key puts all trunks terminated to UCD Group master numbers in the night mode.	18 + CLEAR (System Mode System key) 18 + UCD Master Number (System Mode UCD Master key)
Data Key	This option is currently not used.	19 + nnn (extension number)
Split Key	Use this option to assign a programmable key as a Split key.	20
ICM Directory Key	Use this option to assign a programmable key as an Intercom Directory Dialing key.	21
ACD Log On Key	This option is currently not used.	22
Reverse Voice Over Key	Use this option to assign a programmable key as a Reverse Voice Over key.	23 + nnn (extension number)
Message Center Key	Use this option to assign a programmable key as a Message Center key.	24 + nnn (extension number)
Save Key	Use this option to assign a programmable key as a Save Number Dialed key.	25
Account Code Key	Use this option to assign a programmable key as an Account Code key.	26
Call Forwarding	Use this option to assign a programmable key as a Call Forwarding key.	27
Headset Key	Use this option to assign a programmable key as a Headset key.	28

Other Related Features

Call Coverage Keys (page 59)

DSS Consoles can have Call Coverage keys.

Directory Dialing (page 195)

Assign a Directory Dialing key on a DSS Console.

Group Call Pickup (page 273)

DSS Consoles can have Group Call Pickup keys.

Hotline (page 302)

DSS Consoles can have Hotline keys.

Night Service / Night Ring (page 389)

A DSS Console with a Night (System Mode System) key can put the system in the night mode.

Paging (page 409)

DSS Consoles can have Page zone keys.

Park (page 420)

DSS Consoles can have Park keys.

Direct Station Selection (DSS) Console

Reverse Voice Over (page 459)

A DSS Console can have a Reverse Voice Over key.

Save Number Dialed (page 468)

A DSS Console can have a Save key.

Speed Dial (page 481)

The DSS Console Personal Speed Dial bins are the same as the extension to which the console is attached. This means that DSS Consoles that share the same block number still have unique Personal Speed Dial.

Voice Mail (page 580)

A DSS Console can have Voice Mail Record and Message Center keys.

Feature Operation

To use your DSS Console trunk (line) key:

1. Press the DSS Console trunk key.

DSS Console Trunk Key Busy Lamp Indications	
When the key is:	The assigned trunk is:
Off	Idle or not installed
On	Busy
Slow Flash	Ringing

To use your DSS Console Park key:

1. Press DSS Console Park key to Park or retrieve call.

DSS Console Park Key Busy Lamp Indications	
When the key is:	The assigned orbit is:
Off	Idle
On	Holding a call that has been parked by a co-worker
Wink On	Holding a call that you parked

To use your DSS Console Hotline key:

1. Press key to call Hotline partner.

DSS Console Hotline Key Busy Lamp Indications	
When the key is:	The Hotline partner is:
Off	Idle
On	Busy or ringing
Fast Flash	In Do Not Disturb

Direct Station Selection (DSS) Console

To use your DSS Console Call Coverage key:

You can set up the Call Coverage key for immediate ring, delayed ring, or no ring.

1. Press key to call covered extension or pick up ringing call.

DSS Console Call Coverage Key Busy Lamp Indications	
When the key is:	The covered extension is:
Off	Idle
On	Busy
Fast Flash	In DND
Slow Flash	Ringing

To use your DSS Console Group Call Pickup key:

You can set up the Group Call Pickup key for immediate ring, delayed ring, or no ring.

1. Press key to answer call ringing Pickup Group.

DSS Console Group Call Pickup Key Busy Lamp Indications	
When the key is:	The Pickup Group:
Off	Does not have a call ringing
Slow Flash	Has a call ringing

To use your DSS Console Page Zone key:

1. Press key to Page into assigned zone.

DSS Console Page Zone Key Busy Lamp Indications	
When the key is:	The assigned zone is:
On	Busy
Off	Idle

To use your DSS Console System Speed dial key:

1. Press key to dialed stored number.
System Speed Dial keys provide no BLF.

To use your DSS Console Personal Speed dial key:

1. Press key to dialed stored number.
Personal Speed Dial keys provide no BLF.

To use your DSS Console Conversation Record key:

You must have Voice Mail installed to use this key. A voice prompt and a periodic beep will remind you that your calls are being recorded.

Direct Station Selection (DSS) Console

1. Press key to record conversation in mailbox.

DSS Console Conversation Record Key Busy Lamp Indications	
When the key is:	Recording is:
On	Being set up
Off	Off
Fast Flash	On

To use your DSS Console Night (System Mode System) key:

1. Press key to put the Key Ring trunks and trunks terminated to Ring Group master numbers into the night mode.

DSS Console Night Key Busy Lamp Indications	
When the key is:	The system is:
On	In the night mode
Off	In the day mode

To use your DSS Console Split key:

1. Turn to *Split (Alternate)* on page 493 for more.

To use your DSS Console ICM Directory key:

1. Press key to access Intercom Directory Dialing.

DSS Console ICM Directory Key Busy Lamp Indications	
When the key is:	ICM Directory Dialing is:
On	Active
Off	Inactive

To use your DSS Console Reverse Voice Over key:

1. While on a handset call, press key to place Private Intercom call to covered extension.

DSS Console Reverse Voice Over Key Busy Lamp Indications	
When the key is:	Assigned extension is:
On	Busy or ringing
Off	Idle
Fast Flash	In Do Not Disturb

Direct Station Selection (DSS) Console

To use your DSS Console Message Center key:

1. Press key to call Message Center mailbox.

DSS Console Message Center Key Busy Lamp Indications	
When the key is:	There are:
Off	No messages waiting in the Message Center mailbox
Fast Flash	Messages waiting in the Message Center mailbox

*In software versions prior to 03.10.12, you had to press **SPK** before the Message Center key. Just pressing the Message Center key would show you the number of messages waiting in the Message Center Mailbox.*

To use your DSS Console Save key:

1. While on a call, press key to Save the number you just dialed.
OR
While idle, press key to redial a previously saved number.
Save keys provide no BLF.

To use your DSS Console Account Code key:

1. Place or answer trunk call + Press Account Code key + Enter Account Code + Press Account Code key to return to call.

Account Code Key Busy Lamp Indications	
When the key is:	The extension is:
Off	Not in the Account Code mode or entering Account Codes
Fast Flash	In the Account Code entry mode
On	On a call for which the user has entered an Account Code

To use your DSS Console Call Forwarding key:

1. Press the key instead of pressing **ICM** and dialing *3.

Call Forwarding Key Busy Lamp Indications	
When the key is:	The extension is:
Off	Not Call Forwarded or in the Call Forwarding setup mode
Fast Flash	In the Call Forwarding setup mode
Wink Off	Call Forwarded

Direct Station Selection (DSS) Console

To use your DSS Console Headset key:

1. Press the key to enable or disable the Headset mode.

Headset Key Busy Lamp Indications	
When the key is:	The extension is:
Off	Not in the Headset mode
On	In the Headset mode

Description



DS1000/2000 || Available.



Priority users can access trunks directly. Direct Trunk Access also lets maintenance personnel access and test individual trunks.

Direct Trunk Access lets an extension user access (seize) an individual trunk. After seizing the trunk, the user can dial any outside telephone number without restriction. An extension's Class of Service allows or denies Direct Trunk Access. Direct Trunk Access is normally only provided for attendants, priority users and maintenance personnel.

Conditions

None

Default Setting

Disabled

Programming Guide

Step-by-step guide for setting up Direct Trunk Access

Step 1: Should extension have Direct Trunk Access capability?

If yes



- In *Program 0101 - Direct Trunk Access* (page 620), enter Y.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- In *Program 1803 - Extension Line Access Assignments* (page 763), no entries are required. Direct Trunk Access automatically provides access.

If no



- In *Program 0101 - Direct Trunk Access* (page 620), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 2: Does the default Direct Trunk Access code (4) meet the site requirements?

If yes



- In *Program 0501 - Numbering Plan* (page 671), do not change the digit 4 from its default assignment.

If no



- In *Program 0501 - Numbering Plan* (page 671), reassign digits to meet the site requirements.

Direct Trunk Access

Programming List

Program 0501 - Numbering Plan (page 671)

Change the digit that user's dial for Direct Trunk Access if 4 does not meet the site requirements.

Program 0101 - Direct Trunk Access (page 620)

Enter Y to enable an extension to use Direct Trunk Access.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1803 - Extension Line Access Assignments (page 763)

Direct Trunk Access overrides an extension's access assignments. A extension can directly access a trunk for which they normally do not have access.

Other Related Features

Central Office Calls, Placing (page 119)

Refer to this feature for other methods of placing trunk calls.

Forced Trunk Disconnect (page 271)

An extension user with Direct Trunk Access can use Forced Trunk Disconnect.

Removing Trunks and Extensions From Service (page 457)

An extension user with Direct Trunk Access can remove trunks from service.

Toll Restriction (page 549)

Direct Trunk Access does not bypass Toll Restriction.

Feature Operation

To place a call over a specific trunk using Direct Trunk Access:

1. Lift handset.

2. Press ICM.

 Intercom dial tone.
 ICM on.

3. Dial 1 plus the trunk number (e.g., 101 for trunk 1).

 Trunk dial tone, followed by digits outdialing on the trunk.
 ICM on.

If you hear busy tone, you may be able to dial 2 to queue for the busy trunk. See Trunk (Line) Queuing / Trunk Callback on page 569 for more.

4. Dial outside number.

Description



DS1000/2000 || Available.



Directed Call Pickup allows co-worker's to answer each other's calls.

Directed Call Pickup permits an extension user to intercept any type of call ringing another extension. With Directed Call Pickup, an extension user can pick up:

- Trunk (Key Ring) calls ringing an extension
- Direct Inward Lines
- Transferred trunk calls
- Ringing Intercom calls.
- Recalls (e.g., Hold recall).
- Ring Group Calls (by dialing either the ringing extension's number or the Ring Group master number).
- Ringing Call Coverage key calls.
- Ringing Group Call Pickup calls.
- Calls ringing the operator's Call Queue key.

Conditions

None

Default Setting

Enabled

Programming Guide

None

Programming List

Program 1803 - Extension Line Access Assignments (page 763)

Directed Call Pickup can intercept a call on a trunk to which it normally does not have access.

Other Related Features

Hold (page 296)

Directed Call Pickup can pick up Hold recalls.

Park (page 420)

Personal Park allows an extension user to pick up a call parked at a co-worker's extension.

The following features also let co-workers cover each other's calls:

Call Coverage Keys (page 59)



Group Call Pickup (page 273)

Hotline (page 302)



Directed Call Pickup

Feature Operation

To use Directed Call Pickup to intercept a call to a co-worker's extension:

 Call ringing co-worker's extension.
 N/A.

1. Lift handset.
2. Dial * *.
3. Dial number of extension whose call you want to intercept.

 Conversation with intercepted caller.
 N/A.

To intercept a call ringing an attendant, dial the attendant's extension number (e.g., 300). Do not dial 0 or 01-04.

Description



DS1000/2000

Directory Dialing Display Enhancements require system software version 03.20.07 or higher.



Allows users to place Intercom or Speed Dial calls from a displayed list of names.

Directory Dialing allows a display keyset user to select a co-worker or outside call from a list of names, rather than dialing the phone number. There are three types of directory Dialing:

- **C** – System (Company-Wide) Speed Dial names.
- **I** – Intercom names (including extension, Ring Group and UCD Group names).
- **P** – Personal Speed Dial names.

Directory Dialing Display Enhancements

In software version 03.20.07 and higher, the Interactive Soft Keys for Directory Dialing are re-labeled for clarity as follows.

22- and 34-Button Display Telephone			
Software version 03.20.07 and higher			
DIR	Press to access Directory Dialing.		
	EXT	Press to select from a directory of extension names.	
	PERS	Press to select from a directory of Personal Speed Dial names.	
	CMPY	Press to select from a directory of System Speed Dial Names	
	EXIT	Exit to previous menu.	
Software versions prior to 03.20.07			
DIR	Press to access Directory Dialing, Paging, and Meet Me Conference.		
	INT	Press to select from a directory of extension names.	
	EXT		
		PERS	Press to select from a directory of Personal Speed Dial names.
		CMPY	Press to select from a directory of System Speed Dial names.
	PAGE	Press to access Paging and Meet Me Conference (This option is not available in software version 03.20.07.)	

Super Display Telephone			
Software version 03.20.07 and higher			
DIRECTORY	Press to access Directory Dialing.		
	EXTENSION	Press to select from a directory of extension names.	
	PERSONAL	Press to select from a directory of Personal Speed Dial names.	
	COMPANY	Press to select from a directory of System Speed Dial Names	
	EXIT	Exit to previous menu.	

Directory Dialing

Super Display Telephone		
Software versions prior to 03.20.07		
	INTERCOM	Press to select from a directory of extension names.
	PERSONAL	Press to select from a directory of Personal Speed Dial names.
	COMPANY	Press to select from a directory of System Speed Dial Names
	EXIT	Exit to previous menu.

Conditions

None

Default Setting

Directory Dialing always enabled, but no Intercom or Speed Dial names are stored.

Programming Guide

Step-by-step guide for setting up Directory Dialing

Step 1: Do extension users have adequate time to enter their Directory Dialing options?

If yes

- In *Program 0401 - Intercom Inter-digit* (page 642), leave this option at its currently assigned value.

If no

- In *Program 0401 - Intercom Inter-digit* (page 642), change the Interdigit Interval to meet the site requirements. Keep in mind that this affects *all* Intercom dialing (in addition to Directory Dialing).

Step 2: Should extension have one-touch access to Intercom Directory Dialing?

If yes

- To put an ICM Directory key on a keyset:
In *Program 1701 - ICM Directory Key* (page 740), assign an Intercom Directory Dialing key (code 21).
- To put an ICM Directory key on a DSS Console:
In *Program 1704 - ICM Directory Key* (page 749), assign an Intercom Directory Dialing key (code 21).

If no

- In *Program 1701 - ICM Directory Key* (page 740), and in *Program 1704 - ICM Directory Key* (page 749), do not assign an Intercom Directory Dialing key (code 21).

Programming List

Program 0401 - Intercom Inter-digit (page 642)

If an extension user initiates Directory Dialing but doesn't make an entry within this interval, the system automatically cancels Directory Dialing.

Program 1701 - ICM Directory Key (page 740)

Assign an Intercom Directory Dialing key to a keyset (code 21).

Program 1704 - ICM Directory Key (page 749)

Assign an Intercom Directory Dialing key to a DSS Console (code 21).

Other Related Features

Direct Station Selection (DSS) Console (page 180)

Assign a Directory Dialing key on a DSS Console.

Extension Hunting (page 239)

Intercom Directory Dialing can call UCD Hunting Group master numbers, provided group names are entered in *0510 - ACD/UCD Master Extension Numbers and Names* on page 679.

Group Ring (page 279)

Intercom Directory Dialing can call Ring Group master numbers, provided group names are entered in *0511 - Ring Group Master Extension Numbers and Names* on page 681.

Intercom (page 339)

Directory Dialing is a convenient alternative to manually dialing Intercom numbers.

Names for Extensions and Trunks (page 384)

Set up the names for extensions and trunks.

Speed Dial (page 481)

Set up Speed Dial names.

Directory Dialing

Feature Operation

To place a call using Directory Dialing:

1. Do not lift handset or press **SPK**.
1. Dial 3.
2. Dial the type of Directory Dialing from the table below:

Pressing this key:		Selects Directory Dialing for:
2	C	System (Company-Wide) Speed Dial names.
4	I	Intercom names.
7	P	Personal Speed Dial names.



N/A



SPK on.

*To scroll alphabetically through the selected directory, press **VOL ▲** or **VOL ▼**. To call the displayed name, just press **DIAL**.*

3. Dial the first letter of the desired name.

For example, dial 4 if the first letter in the name begins with G, H or I.



N/A



For the example above (i.e., when you dial 4), the display shows:
1 = G, 2 = H, 3 = I

4. Look at your phone's display and dial the digit for the letter you want to call.
*In the example above, if the name begins with G, dial 1. If the name begins with H, dial 2. If the name begins with I, dial 3.
The first name that begins with your selection displays. If you see **UNLISTED NAME**, there is no name stored for your selection.*
5. Press **VOL ▲** or **VOL ▼** to scroll through all the names that begin with the letter you selected.
OR
Skip to the next step if the displayed name is the one you want to call.
6. Press **DIAL** to have the system dial your call.

To exit Directory Dialing at any time.

1. Press **SPK**.

Description



DS1000/2000

|| Available. Refer to *Alphanumeric Display* on page 33 for more.

Distinctive Ringing

Description



DS1000/2000

Available.



Allows users to customize their telephone's ringing so they'll know when calls are just for them.

!! Important !!

Use **Program 9803 - Ring Tone Setup** (page 789) to initialize Distinctive Ringing with a single command. *Following initialization, you must reset the system or unplug and then re-plug each telephone.*

Distinctive Ringing allows the installer or keyset extension user to customize keyset ringing. This permits the user to determine the type of call just by listening to their keyset ring. Distinctive Ringing provides:

- **Distinctive Ring Configuration at Each Keyset**
A keyset user can follow intuitive soft key menus to set up distinctive ringing for their phone. Their phone will even play back the new ring tones as the distinctive rings are being set up. This option is controlled by the extension's Class of Service.
- **Trunk Override (Distinctive Ringing by Trunk and Ringing Mode)**
Each trunk can have its own distinctive ringing for each ring mode (day, night, or delay). This allows a keyset user, for example, to easily differentiate between new ringing calls and calls that are ringing their phone after a delay.
- **Extension Ring Override**
Each keyset extension can additionally override a trunk's distinctive ringing with the extension's own unique settings. Extension Ring Override helps identify ringing phones in large, open work areas. This option is controlled by the extension's Class of Service.
- **Key Ring Override**
A keyset extension can set up unique ringing for each of its Call Coverage, Group Call Pickup, and Line keys. If a user needs to know what type of call is ringing their phone, Key Ring Override will help. The ability to set up this option is controlled by the extension's Class of Service.
- **Unique Ringing for UCD Hunting Groups and Ring Groups**
UCD Hunting and Ring Groups can have their own distinctive rings. This allows a user to tell the difference between Intercom calls ringing their phone and UCD or Ring Group Calls.
- **Fully Customizable Ring Tones**
The tones that comprise ringing are fully customizable. See *The Basics of How to Change the "Sound" of a Ring Type* below for more.
- **Distinctive Ringing Administration**
The Distinctive Ringing Administration (Admin) features allow a keyset extension user to store the unique ring settings they set up at their phone. *Super Display users* can also save their settings in the system so they are available to other keyset users.

The Distinctive Ringing Hierarchy

An extension's Distinctive Ringing uses the following hierarchy:

1. Key Ring Override
2. Extension Ring Override
3. Trunk Override
4. Default ringing assigned by the system

This means that Trunk Override will replace the default ringing assigned by the system. Extension Ring Override will in turn replace ringing set by Trunk Override. Finally, Key Ring Override will replace ringing set by Extension Override or ringing set by Trunk Override.

Understanding Ring Types and Ring Sets

!! Important !!

The Ring Set determines how a call rings an extension. It assigns unique ringing patterns (called Ring Types) to different types of calls. By default, there are four different types of ringing calls: Intercom, Ring Group, Recall, and trunk. They ring differently because the Ring Types assigned to each of these four call types sound unique.

As shown in the chart below, each Ring Set provides 6 Ring Types at each extension which control how the extension rings. Four (1-4) are assigned to a call type by default; the remaining two (5 and 6) are spare. Each extension has 3 Ring Sets from which to choose: the default and two alternates. The alternates have the same Ring Type to Call Type assignment as the default, but their Ring Types sound different.

The Ring Set	
Ring Type	Call Type
1	Intercom ringing This includes ringing Intercom calls, as well as calls ringing Extension Hunting groups, Call Coverage keys and the operator's Call key.
2	Ring Group ringing
3	Recall ringing This includes Hold, Park or Transfer recall ringing.
4	Type A ringing This includes line key, loop key, Transfer, and DIL ringing. (You can reassign types A, B, and C ringing in <i>Extension Override</i> and <i>Key Ring Override</i> below.)
5	Type B ringing Not used (unassigned) by default. (You can reassign types A, B, and C ringing in <i>Extension Override</i> and <i>Key Ring Override</i> below.)
6	Type C ringing Not used (unassigned) by default. (You can reassign types A, B, and C ringing in <i>Extension Override</i> and <i>Key Ring Override</i> below.)

Distinctive Ringing

The Basics of How to Change the “Sound” of a Ring Type

Each *Ring Type* consists of a *Ring Tone* and a *Cadence*.

- A *Ring Tone* is comprised of two frequencies, modulated (i.e., varied) by a third frequency. The system allows up to 10 Ring Tones. In programming, you can customize each component of a Ring Tone.
- A *Cadence* is the pattern of the ring. It determines the number of bursts in the ring (1-4), the length of the bursts (100 mS to 2 seconds), and how often the ring pattern repeats (from 4 to 7 seconds). The system provides up to 10 cadences. In programming, you can customize each component of a Cadence.
- Since there are 10 Ring Tones and 10 cadences, there are 100 possible combinations for each Ring Type.

When Multiple Calls Ring an Extension

When multiple calls with different priorities are ringing an extension, the system prioritizes ringing according to the list below. All LEDs will flash as appropriate for the type of call, but the telephone will ring only for the highest priority call.

- Intercom and Ring Group ringing
- Trunk ringing, including line key (Key Ring), loop key, Transfer and DIL ringing.
- Operator Call Key ringing
- Call Coverage Key ringing

Programming Guidelines

The steps that follow guide you through all aspects of Distinctive Ringing setup.

Step 1: Setting Up Distinctive Ringing (Distinctive Ring Configuration) at a Keyset

From the Programming List

- Be sure the extension has *Program 0101 - Ring Type Configuration* (page 621), enabled (Y) in their Class of Service.

From the Soft Key Programming

- Go to *Distinctive Ring Configuration*, and select new tones and/or cadences for the Ring Types you want to customize. ***This cannot be done from system programming.***

Step 2: Setting Up Trunk Override (Distinctive Ringing by Trunk and Ringing Mode)

From the Programming List

- In *Program 1003 - Day Ring Type* (page 713), *Program 1003 - Night Ring Type* (page 713), and *Program 1003 - Delay Ring Type* (page 713), set up ringing for trunks.

From the Soft Key Programming

- None

Step 3: Setting Up Extension Override

From the Programming List

- In *Program 0101 - Extension Ring Override* (page 621), be sure the extension has this option enabled (Y) in their Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

- In *Program 1806 - Day Ring Type* (page 769), *Program 1806 - Night Ring Type* (page 769), and *Program 1806 - Delay Ring Type* (page 770), assign new Ring Sets to an extension's trunk calls. You can make a unique assignment for each ringing mode (day, night, and delay). (You can also use the soft keys to do this - see below.)

From the Soft Key Programming

- Go to *Extension Override* and assign new Ring Sets to your extension's trunk calls. You can make a unique assignment for each ringing mode (day, night, and delay). (You can also do this from system programming - see above.)

Step 4: Setting Up Key Ring Override

From the Programming List

- In *Program 0101 - Key Ring Override* (page 622), be sure the extension has this option enabled (Y) in their Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

From the Soft Key Programming

- Go to *Key Ring Override* and assign new Ring Types to your extension's Call Coverage, Group Call Pickup, and line keys. ***This cannot be done from system programming.***

Step 5: Setting Up Unique Ringing for UCD Hunting and Ring Groups

From the Programming List

- In *Program 0510 - Hunt Group Ring Type* (page 680), change the Ring Type assignment for Hunt Group calls.
- In *Program 0511 - Ring Group Ring Type* (page 682), change the Ring Type assignment of Ring Group calls.

From the Soft Key Programming

- None

Step 6: Changing the Ring Tone and Cadence Frequencies

From the Programming List

- In *Program 9803 - Ring Tone Setup* (page 789), change the two Ring Tone frequencies and/or the cadence frequency.

From the Soft Key Programming

- None

Step 7: Using Distinctive Ringing Administration

From the Programming List

- In *Program 1806 - Initialize Ring Type* (page 770), use this option to load a previously saved default Ring Set into an extension. (You can also do this from the soft keys - see below.)

From the Soft Key Programming

- To load a previously saved default Ring Set into your extension, go to *Admin: Selecting a Default Ring Tone Set*. (You can also do this from the Programming List - see above.)
- To save the changes you make to your Ring Tones as one of the Default Ring Tone Sets, go to *Admin: Saving a New Default Ring Tone Set*. (***This is only available at super display keysets.***)

Distinctive Ringing

(It is not available from the Programming List.)

Step 8: Reinstating Default Ringing

- To reinstate the default Ring Set and Ring Tones at an extension, press:
At a Super Display Telephone
- **PROGRAM + RING + CONFIG + DEFAULT** + Select a Ring Set (1-3)
At a 22-Button or 34 Button Display Keyset
- **PGM + RING + CNFG + MORE + MORE + DFLT** + Select a Ring Set (1-3)
- To cancel user-entered Extension Override settings:
- In **0101 - Extension Ring Override**, enter N (No).
- To cancel user-entered Key Ring Override settings:
- in **0101 - Key Ring Override**, enter N (No).

Conditions

None

Default Setting

Distinctive Ringing disabled.

Programming Guide

Step-by-step guide for setting up Distinctive Ringing (Page 1 of 5)

Step 1: Do you want to set up Distinctive Ring (i.e., use Distinctive Ring Configuration)?

If yes

Using the extension's soft keys:

- In *Program 0101 - Ring Type Configuration* (page 621), enter Y to allow the extension to set up Distinctive Ring Configuration by enabling the **CONFIG** (CNFG) soft key.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Using system programming:

- Distinctive Ring Configuration cannot be set up from system programming.

If no

Using the extension's soft keys:

- In *Program 0101 - Ring Type Configuration* (page 621), enter N to prevent the extension from setting up Distinctive Ring Configuration by hiding the **CONFIG** (CNFG) soft key.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Using system programming:

- Distinctive Ring Configuration cannot be set up from system programming.

Step-by-step guide for setting up Distinctive Ringing (Page 2 of 5)

Step 2: Do you want to set up Trunk Override (i.e., Distinctive Ringing by Trunk and Ringing Mode)?

If yes

Using the extension's soft keys:

- Trunk Override cannot be set up from an extension's soft keys.

Using system programming:

- In *Program 1003 - Day Ring Type* (page 713), change the Ring Type for the trunk (1=Ring Type A [default], 2=Ring Type B, 3=Ring Type C).
- In *Program 1003 - Night Ring Type* (page 713), change the Ring Type for the trunk (1=Ring Type A [default], 2=Ring Type B, 3=Ring Type C).
- In *Program 1003 - Delay Ring Type* (page 713), change the Ring Type for the trunk (1=Ring Type A [default], 2=Ring Type B, 3=Ring Type C).

If no

Using the extension's soft keys:

- Trunk Override cannot be set up from an extension's soft keys.

Using system programming:

- In *Program 1003 - Day Ring Type* (page 713), leave the Ring Type for the trunk at its default setting (1=Ring Type A).
- In *Program 1003 - Night Ring Type* (page 713), leave the Ring Type for the trunk at its default setting (1=Ring Type A).
- In *Program 1003 - Delay Ring Type* (page 713), leave the Ring Type for the trunk at its default setting (1=Ring Type A).

Distinctive Ringing

Step-by-step guide for setting up Distinctive Ringing (Page 3 of 5)

Step 3: Do you want to set up Extension Override?

If yes

Using the extension's soft keys:

- In *Program 0101 - Extension Ring Override* (page 621), enter Y to enable the extension's **ASSIGN** (ASGN) soft key.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Using system programming:

- In *Program 1806 - Day Ring Type* (page 769), set the Extension Override Ring Type option for "Day Ring" trunks ringing the extension. The entries are 1 (Ring Type A), 2 (Ring Type B), 3 (Ring Type C), and 0 (LINE - or default).
- In *Program 1806 - Night Ring Type* (page 769), set the Extension Override Ring Type option for "Night Ring" trunks ringing the extension. The entries are 1 (Ring Type A), 2 (Ring Type B), 3 (Ring Type C), and 0 (LINE - or default).
- In *Program 1806 - Delay Ring Type* (page 770), set the Extension Override Ring Type option for "Delay Ring" trunks ringing the extension. The entries are 1 (Ring Type A), 2 (Ring Type B), 3 (Ring Type C), and 0 (LINE - or default).

If no

Using the extension's soft keys:

- In *Program 0101 - Extension Ring Override* (page 621), enter N to hide the extension's **ASSIGN** (ASGN) soft key.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Using system programming:

- In *Program 1806 - Day Ring Type* (page 769), enter 0 (LINE) to use the default system ringing.
- In *Program 1806 - Night Ring Type* (page 769), enter 0 (LINE) to use the default system ringing.
- In *Program 1806 - Delay Ring Type* (page 770), enter 0 (LINE) to use the default system ringing.

Step 4: Do you want to set up Key Ring Override?

If yes

Using the extension's soft keys:

- In *Program 0101 - Key Ring Override* (page 622), enter Y to enable the Key Ring Override functions of the **KEY** soft key.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Using system programming:

- Key Ring Override cannot be set up from system programming.

Step-by-step guide for setting up Distinctive Ringing (Page 4 of 5)

If no

Using the extension's soft keys:

- In *Program 0101 - Key Ring Override* (page 622), enter N to disable the Key Ring Override functions of the **KEY** soft key.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Using system programming:

- Key Ring Override cannot be set up from system programming.

Step 5: Do you want to set up Unique Ringing for UCD Hunting Groups and Ring Groups?

If yes

Using the extension's soft keys:

- This option cannot be set up from the extension's soft keys.

Using system programming:

- In *Program 0510 - Hunt Group Ring Type* (page 680), assign a Ring Type to calls ring UCD Hunting Group master numbers. The entries are 1 (Ring Type A), 2 (Ring Type B), 3 (Ring Type C) and 0 (Standard - or default).
- In *Program 0511 - Ring Group Ring Type* (page 682), assign a Ring Type to calls ring Ring Group master numbers. The entries are 1 (Ring Type A), 2 (Ring Type B), 3 (Ring Type C) and 0 (Standard - or default).

If no

Using the extension's soft keys:

- This option cannot be set up from the extension's soft keys.

Using system programming:

- In *Program 0510 - Hunt Group Ring Type* (page 680), enter 0 (Standard - or default).
- In *Program 0511 - Ring Group Ring Type* (page 682), enter 0 (Standard - or default).

Step 6: Do you want to change the Ring Tone and Cadence frequencies of the 9 tones associated with each Ring Type?

If yes

Using the extension's soft keys:

- This option cannot be set up from the extension's soft keys.

Using system programming:

- In *Program 9803 - Ring Tone Setup* (page 789), change the two Ring Tone frequencies and/or the cadence frequency.

Distinctive Ringing

Step-by-step guide for setting up Distinctive Ringing (Page 5 of 5)

If no

Using the extension's soft keys:

- This option cannot be set up from the extension's soft keys.

Using system programming:

- In *Program 9803 - Ring Tone Setup* (page 789), leave the two Ring Tone frequencies and/or the cadence frequency at their default values.

Step 7: Do you want to use Distinctive Ring Administration to load a previously saved default Ring Set into an extension?

If yes

Using the extension's soft keys:

- To load a previously saved default Ring Set into your extension, go to *Admin: Selecting a Default Ring Tone Set*.
- To save the changes you make to your Ring Tones as one of the Default Ring Tone Sets, go to *Admin: Saving a New Default Ring Tone Set*. ***(This is only available at super display keysets. It is not available from the Programming List.)***

Using system programming:

- In *Program 1806 - Initialize Ring Type* (page 770), use this option to load a previously saved default Ring Set into an extension.

If no

Using the extension's soft keys:

- Do not use the *Admin* option.

Using system programming:

- In *Program 1806 - Initialize Ring Type* (page 770), do not load a previously saved Ring Set into an extension.

Step 8: Do you want to reinstate the default ringing?

If yes

Using the extension's soft keys:

- Go to *Step 8: Reinstating Default Ringing* on page 204.

Using system programming:

- In *Program 9803 - Ring Tone Setup* (page 789), initialize Distinctive Ringing system-wide with a single command.

If no

Using the extension's soft keys:

- Do not go to *Step 8: Reinstating Default Ringing* on page 204.

Using system programming:

- In *Program 9803 - Ring Tone Setup* (page 789), do not initialize Distinctive Ringing system-wide with a single command.

Programming List

Program 0101 - Ring Type Configuration (page 621)

If enabled (Y), this option allows an extension to customize the sound of their Ring Types by pressing the **CONFIG** (CNFG) soft key. If disabled (N), the extension cannot customize their Ring Types and the system hides the **CONFIG** (CNFG) soft key.

Program 0101 - Extension Ring Override (page 621)

If enabled (Y), this option allows an extension to customize the distinctive ringing for Day Ring, Night Ring, and Delay Ring trunk calls on line keys by pressing the **ASSIGN** (ASGN) soft key. If disabled (N), the extension cannot customize the distinctive ringing and the system hides the **ASSIGN** (ASGN) soft key. If you enable this option, and the user customizes their Extension Override settings, disabling this option will cancel the user's custom settings.

Program 0101 - Key Ring Override (page 622)

If enabled, this option allows an extension to customize the distinctive ringing of individual Call Coverage, Group Call Pickup, and Line Keys by pressing the **KEY** soft key. If disabled (N), the extension cannot customize the distinctive ringing. If you enable this option, and the user customizes their Key Ring Override settings, disabling this option will cancel the user's custom settings.

Program 0510 - Hunt Group Ring Type (page 680)

Use this option to assign a Ring Type to calls ringing UCD Hunting Group master numbers. When an extension in the UCD group rings, the system uses the Ring Type specified in this option. When selecting a Ring Type, the options are:

- 1 = Ring Type A
- 2 = Ring Type B
- 3 = Ring Type C
- 0 = The system's default ("Standard") ringing for UCD Hunting Group calls. The tone cannot be customized.

Program 0511 - Ring Group Ring Type (page 682)

Use this option to assign a Ring Type to calls ringing Ring Group master numbers. When an extension in the Ring Group rings, it uses the Ring Type specified in this option. When selecting a Ring Type, the options are:

- 1 = Ring Type A
- 2 = Ring Type B
- 3 = Ring Type C
- 0 = The system's default ("Standard") ringing for Ring Group calls. The tone cannot be customized. This is the default setting for this option.

Program 1003 - Day Ring Type (page 713)

Use this option to assign a Ring Type for the trunk's Day Ringing. When the trunk rings an extension in the Day Ring mode, it uses the Ring Type specified in this option. When selecting a Ring Type, the options are:

- 1 = Ring Type A (This is the default setting.)
- 2 = Ring Type B
- 3 = Ring Type C.

Program 1003 - Night Ring Type (page 713)

Use this option to assign a Ring Type for the trunk's Night Ringing. When the trunk rings an extension in the Night Ring mode, it uses the Ring Type specified in this option. When selecting a Ring Type, the options are:

- 1 = Ring Type A (This is the default setting.)
- 2 = Ring Type B
- 3 = Ring Type C

Distinctive Ringing

Program 1003 - Delay Ring Type (page 713)

Use this option to assign a Ring Type for the trunk's Delay Ringing. When the trunk rings an extension in the Delay Ring mode, it uses the Ring Type specified in this option. When selecting a Ring Type, the options are:

- 1 = Ring Type A (This is the default setting.)
- 2 = Ring Type B
- 3 = Ring Type C

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1806 - Day Ring Type (page 769)

Use this option to set the *Extension Override* Ring Type option for "Day Ring" trunks ringing the extension. This is the same as following the **ASSIGN** (ASGN) soft key. If *1003 - Day Ring Type* (page 713) is 0 (Standard Group), the setting you make in this option will take effect. If *1003 - Day Ring Type* (page 713) is 1-3, the setting you make in this option will only take effect if *0101 - Extension Ring Override* (page 621) is also enabled (Y). The entry options are:

- 1 = Ring Type A
- 2 = Ring Type B
- 3 = Ring Type C
- 0 = LINE (follows the setting for the trunk in 1003). This is the default setting.

Program 1806 - Night Ring Type (page 769)

Use this option to set the *Extension Override* Ring Type option for "Night Ring" trunks ringing the extension. This is the same as following the **ASSIGN** (ASGN) soft key. If *1003 - Night Ring Type* (page 713) is 0 (Standard Group), the setting you make in this option will take effect. If *1003 - Night Ring Type* (page 713) is 1-3, the setting you make in this option will only take effect if *0101 - Extension Ring Override* (page 621) is also enabled (Y). The entry options are:

- 1 = Ring Type A
- 2 = Ring Type B
- 3 = Ring Type C
- 0 = LINE (follows the setting for the trunk in 1003). This is the default setting.

Program 1806 - Delay Ring Type (page 770)

Use this option to set the *Extension Override* Ring Type option for "Delay Ring" trunks ringing the extension. This is the same as following the **ASSIGN** (ASGN) soft key. If *1003 - Delay Ring Type* (page 713) is 0 (Standard Group), the setting you make in this option will take effect. If *1003 - Delay Ring Type* (page 713) is 1-3, the setting you make in this option will only take effect if *0101 - Extension Ring Override* (page 621) is also enabled (Y). The entry options are:

- 1 = Ring Type A
- 2 = Ring Type B
- 3 = Ring Type C
- 0 = LINE (follows the setting for the trunk in 1003). This is the default setting.

Program 1806 - Initialize Ring Type (page 770)

If you used the **CONFIG** soft key to save a Ring Set as a system default, use this option to load the saved set into an extension. Use this program as an alternative to going to each extension and using the following to select a default Ring Set:

Super Display: **PROGRAM + RING + CONFIG + DEFAULT**

OR

22-Button or 34-Button Display: **PGM + RING + CNFG + MORE + MORE + DFLT**

Program 9803 - Ring Tone Setup (page 789)

- Use **9803 - Ring Tone Setup** to customize the 9 tones associated with each Ring Type.
- You can also use **9803 - Ring Tone Setup** to initialize Distinctive Ringing system-wide with a single command. *Following initialization, you must reset the system or unplug and then re-plug each telephone.*

Other Related Features

Call Coverage Keys (page 59)

By using Key Ring Override, Distinctive Ringing allows an extension user to set up unique ringing for their Call Coverage keys.

Delayed Ringing (page 149)

You can set up Delayed Ringing to ring with a distinctive tone.

Group Call Pickup (page 273)

By using Key Ring Override, Distinctive Ringing allows an extension user to set up unique ringing for their Group Call Pickup keys.

Line Keys (page 356)

By using Key Ring Override, Distinctive Ringing allows an extension user to set up unique ringing for their line keys.

Feature Operation

Soft Key Programming for 22-Button and 34-Button Display Telephones

Distinctive Ring Configuration

To customize a Ring Set for your extension (if allowed by your extension's Class of Service):

1. From the idle state, press **PGM**. You see:



```
1-1 THU 5:15PM
CFWD RING SPD MORE
```

2. Press **RING**. You see:




```
1-1 THU 5:15PM
ASGN CNFG KEY EXIT
```

3. Press **CNFG**. You see:



```
1-1 THU 5:15PM
ICM RGRP RCL MORE
```

If you press **MORE**, you see:



```
1-1 THU 5:15PM
"A" "B" "C" MORE
```

If you press **MORE** again, you see:



```
1-1 THU 5:15PM
DFLT EXIT MORE
```

From the choices above:

- Press **ICM** to change the Intercom Ring Type.
- Press **RGRP** to change the Ring Group Ring Type.
- Press **RCL** to change the Recall Ring Type.
- Press **"A"** to change the Type A Ring Type.

Distinctive Ringing

- Press "**B**" to change the Type B Ring Type.
 - Press "**C**" to change the Type C Ring Type.
 - Press **DFLT** to select another default Ring Set (1-3) and cancel your custom settings.
4. When you select a Ring Type to configure, you hear the current selection for the Ring Type selected and you see the type number displayed (Intercom Ring Type shown):

```
Ring Type 1 (ICM)
TONE CDNC CNCL SAVE
```

- Press **TONE** to select a new Ring Tone (0-9).
 - Press **CDNC** to select a new Cadence (0-9).
 - Press **CNCL** to cancel your selection and return to the previous step.
 - Press **SAVE** to save the current selection and return to the previous step.
 - Press the **SPK** key to exit.
5. To change the Ring Tone or Cadence (Ring Tone screen shown below):

```
Ring Tone?(0-9):2
CNCL OK
```

- Dial **0-9** to select a new Ring Tone or Cadence for the selected Ring Type. (You'll hear the ringing change after you enter your selection.)
- Press **CNCL** to cancel your selection and return to the previous step.
- Press **OK** to accept your selection and return to the previous step.

Extension Override

To customize ringing for your extension's outside calls (if allowed by your extension's Class of Service):

```
1-1 THU 5:15PM
DIR PGM VMOO CLO4
```

1. From idle, press **PGM**. You see:

```
1-1 THU 5:15PM
CFWD RING SPD MORE
```

2. Press **RING**. You see:

```
1-1 THU 5:15PM
ASGN CNFG KEY EXIT
```

3. To change Extension Override ringing, press **ASGN**. You see:

```
1-1 THU 5:15PM
DAY NGT DLY EXIT
```

4. Select the ringing mode you want to change (day, night, or delay). You see (example shown if you select day ringing):

```
Day Ring Type?LINE
"A" "B" "C" MORE
```


If you press **MORE**, you see:

```
Day Ring Type?LINE
LINE          EXIT MORE
```

- Select a Ring Type option (A, B or C), or
- Select **LINE** to have ringing follow trunk ring programming (set up in Program 1003).

Key Ring Override

To assign a Ring Type to an individual Call Coverage, Group Call Pickup, or Line Key (if allowed by your extension's Class of Service):

1. From your idle display, press **PGM + RING + KEY**. You see:

```
1-1 THU 5:15PM
CCK PKUP LINE EXIT
```

2. Select the type of key you want to program (e.g., Call Coverage, Group Call Pickup, or Line).
 - After your selection, the keys of the chosen type will illuminate.
3. Press the individual key you want to program.
 - The Ring Type you choose in the next step will be assigned to the key you press in this step.
4. After you press a key, you see (example for Line Key 01 shown below):

```
Key 01: Day Ring
Ring Type:Standard
```


- Dial 1 to select Ring Type A.
 - Dial 2 to select Ring Type B.
 - Dial 3 to select Ring Type C.
 - Dial 0 to select Standard (i.e., normal ringing for this type of call).
 - You can also optionally set up ringing (just like using the **#RAC**, **#RAP**, and **#RAL** User-Programming Feature steps).
5. Press another key to program, or press the **SPK** key to exit.

Distinctive Ringing

Admin: Selecting a Default Ring Tone Set

To select one of the default Ring Tone Sets for your phone:

1. From your idle display, press **PGM + RING + CNFG + MORE** (twice) + **DFLT**. You see:



```
Default Ring Types
SET1 SET2 SET3 EXIT
```

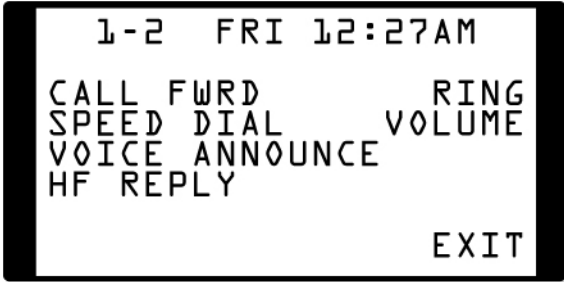
2. Select the default Ring Tone set you want to use.
(By default, all extensions use Ring Tone Set 1.)
3. When you see **Are You Sure? (Y/N)**:
 - Dial **9** (for yes) to confirm your selection, or
 - Dial **6** (for no) to exit without making a selection.
4. Press **PREVIOUS** to return to the previous screen or the **SPK** key to exit.

Soft Key Programming for Super Display Telephones

Distinctive Ring Configuration

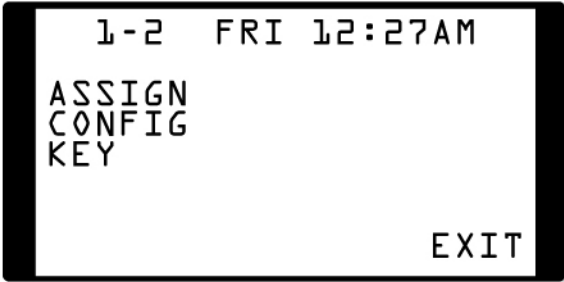
To customize a Ring Set for your extension (if allowed by your extension's Class of Service):

1. From idle, press **PROGRAM**. You see:



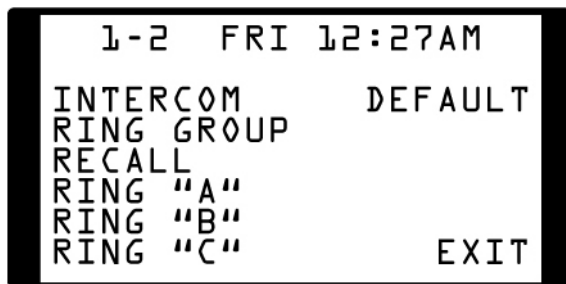
```
1-2 FRI 12:27AM
CALL FWRD RING
SPEED DIAL VOLUME
VOICE ANNOUNCE
HF REPLY
EXIT
```

2. Press **RING**. You see:



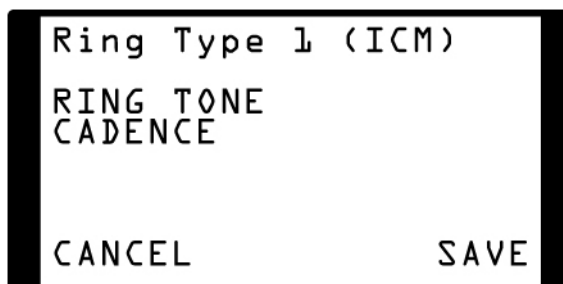
```
1-2 FRI 12:27AM
ASSIGN
CONFIG
KEY
EXIT
```

3. Press **CONFIG**. You see:

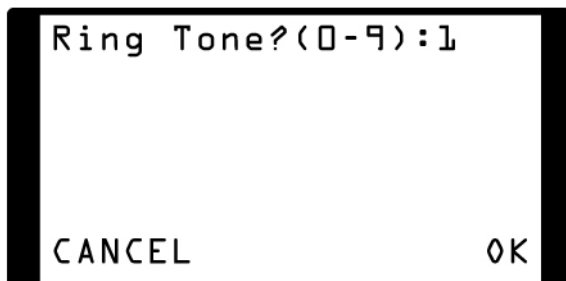


From the choices above:

- Press **INTERCOM** to change the Intercom Ring Type.
 - Press **RING GROUP** to change the Ring Group Ring Type.
 - Press **RECALL** to change the Recall Ring Type.
 - Press **RING 'A'** to change the Type A Ring Type.
 - Press **RING 'B'** to change the Type B Ring Type.
 - Press **RING 'C'** to change the Type C Ring Type.
 - Press **DEFAULT** to select another default Ring Set (1-3) and cancel your custom settings.
4. When you select a Ring Type to configure, you hear the current selection for the Ring Type selected and you see (Intercom Ring Type shown):



- Press **RING TONE** to select a new Ring Tone (0-9).
 - Press **CADENCE** to select a new Cadence (0-9).
 - Press **CANCEL** to cancel your selection and return to the previous step.
 - Press **SAVE** to save the current selection and return to the previous step.
 - Press the **SPK** key to exit.
5. To change the Ring Tone or Cadence (Ring Tone screen shown below):



- Dial **0-9** to select a new Ring Tone or Cadence for the selected Ring Type. (You'll hear the ringing change after you enter your selection.)
- Press **CANCEL** to cancel your selection and return to the previous step.
- Press **OK** to accept your selection and return to the previous step.

Distinctive Ringing

Extension Override

To customize ringing for your extension's outside calls (if allowed by your extension's Class of Service):

```
5-16 WED 8:02AM
DIRECTORY
PROGRAM
V-MAIL 00
CALLS 03 SP DIAL 1
PAGE SP DIAL 2
```

1. Press **PROGRAM**. You see:

```
1-2 FRI 12:27AM
CALL FWRD RING
SPEED DIAL VOLUME
VOICE ANNOUNCE
HF REPLY
EXIT
```

2. Press **RING**. You see:

```
1-2 FRI 12:27AM
ASSIGN
CONFIG
KEY
EXIT
```

3. To change Extension Override ringing, press **ASSIGN**. You see:

```
1-2 FRI 12:55AM
DAY RING
NIGHT RING
DELAY RING
EXIT
```

4. Select the ringing mode you want to change (day, night, or delay). You see (example shown if you select day ringing):

```
Day Ring Type?LINE
RING "A"
RING "B"
RING "C"
CO LINE
EXIT
```

- Select a Ring Type option (A, B or C), or
- Select **CO LINE** to have ringing follow trunk ring programming (set up in Program 1003).

Key Ring Override

To assign a Ring Type to an individual Call Coverage, Group Call Pickup, or Line Key (if allowed by your extension's Class of Service):

1. From your idle display, press **PROGRAM + RING + KEY**. You see:

```
1-2 SAT 12:27AM
CALL COVERAGE
PICKUP
LINE
EXIT
```

2. Select the type of key you want to program (e.g., Call Coverage, Group Call Pickup, or Line).
 - After your selection, the keys of the chosen type will illuminate.
3. Press the individual key you want to program.
 - The Ring Type you choose in the next step will be assigned to the key you press in this step.
4. After you press a key, you see (example for Line Key 01 shown below):

```
Key 01: Day Ring
Ring Type:Standard
```

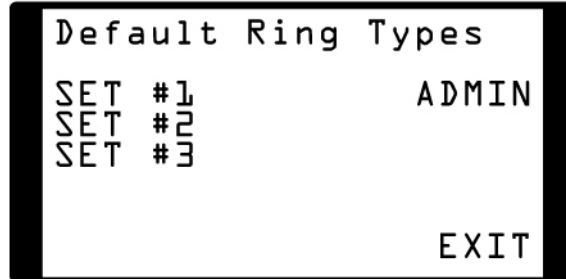
- Dial 1 to select Ring Type A.
 - Dial 2 to select Ring Type B.
 - Dial 3 to select Ring Type C.
 - Dial 0 to select Standard (i.e., normal ringing for this type of call).
 - You can also optionally set up ringing (just like using the **#RAC**, **#RAP**, and **#RAL** User-Programming Feature steps).
5. Press another key to program, or press the **SPK** key to exit.

Distinctive Ringing

Admin: Selecting a Default Ring Tone Set

To select one of the default Ring Tone Sets for your phone:

1. From your idle display, press **PROGRAM + RING + CONFIG + DEFAULT**. You see:

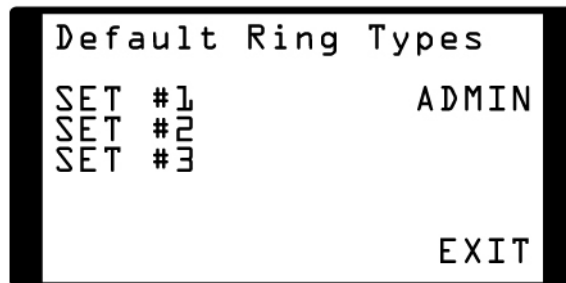


2. Select the default Ring Tone set you want to use.
(By default, all extensions use Ring Tone Set 1.)
3. When you see **Are You Sure? (Y/N)**:
 - Dial **9** (for yes) to confirm your selection, or
 - Dial **6** (for no) to exit without making a selection.
4. Press **PREVIOUS** to return to the previous screen or the **SPK** key to exit.

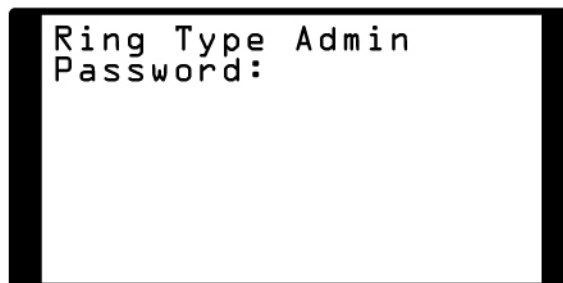
Admin: Saving a New Default Ring Tone Set

To save the changes you make to your Ring Tones as one of the default Ring Tone Sets:

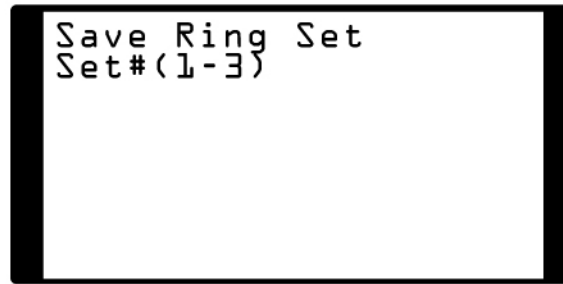
1. From your idle display, press **PROGRAM + RING + CONFIG + DEFAULT**. You see:



2. Press **ADMIN**. You see:



3. Enter the System Administrator 1 (0000), System Administrator 2 (9999), or Installer (372000) password. You see:



4. Enter the number of the default Ring Set (1-3) to which you want to save your phone's configuration.
5. When you see **Are You Sure? (Y/N)**:
 - Dial **9** (for yes) to confirm your selection, or
 - Dial **6** (for no) to exit without making a selection.
6. Press the SPK key to return step 2.

Do Not Disturb

Description



DS1000/2000

Available.



DND permits an extension user to work by the phone undisturbed by incoming calls and announcements.

Do Not Disturb (DND) blocks incoming calls, Off-Hook Signaling and Paging announcements. An extension user can activate DND anytime while on a call or while their phone is idle. Once activated, incoming trunk calls still flash the line keys. The user may use the phone in the normal manner for placing and processing calls.

Do Not Disturb provides the following 4 DND options:

- (1) Incoming trunk calls blocked
- (2) Incoming Intercom calls blocked
- (3) All incoming calls blocked
- (0) Cancel Do Not Disturb

Do Not Disturb Options	
This DND option:	Blocks these calls:
(1) Incoming Trunk Calls Blocked	Ringling for outside calls, including: <ul style="list-style-type: none">• Key Ring calls• Off Hook Ringing• Call Coverage Keys• Group Call Pickup keys• Transferred trunk calls• Hold, Park, and Transfer recalls• Extension Hunting calls• DILs to the extension (if the extension is the night mode termination)• DILs to a Ring Group master number (if the extension is in the group)
(2) Incoming Intercom Calls Blocked	<ul style="list-style-type: none">• Incoming Intercom calls• Transferred calls• Paging announcements• Ringing from Intercom calls to the Ring Group master number (if the extension is in the group)• Extension hunting calls that normally ring the extension
(3) All Incoming Calls Blocked	<ul style="list-style-type: none">• All calls blocked by Option 1 <i>and</i> Option 2.
(0) Cancel Do Not Disturb	<ul style="list-style-type: none">• Options 0 cancels Do Not Disturb

Do Not Disturb BLF for Hotline and Call Coverage Keys

The following chart shows the Do Not Disturb Busy Lamp Field flash rates for Hotline and Call Coverage keys.

Hotline and Call Coverage Key Busy Lamp Indications	
When the key is:	The covered extension is:
Off	Idle or not installed
On	Busy
Flashing slowly ¹	Ringing
Wink off	In DND for trunk calls (option 1)
Flashing fast	In DND for Intercom calls (option 2) or All Calls (option 3)

¹ Available on Call Coverage key only.

Note: When transferring a trunk call to an extension in DND, the Transfer will be blocked if the extension has enabled DND for all calls (type 3) or DND for trunk calls (type 1). The Transfer will be allowed if the extension has enabled DND for Intercom calls (type 2).

Conditions

A system reset or power failure cancels DND.

Default Setting

Do Not Disturb enabled.

Programming Guide

Step-by-step guide for setting up Do Not Disturb

Step 1: Should an extension be allowed to enable Do Not Disturb?

If yes

- In *Program 1802 - Do Not Disturb* (page 758), enter Y to enable Do Not Disturb.

If no

- In *Program 1802 - Do Not Disturb* (page 758), enter N to disable Do Not Disturb.

Programming List

Program 1802 - Do Not Disturb (page 758)

Enter Y to enable Do Not Disturb at the extension.

Do Not Disturb

Other Related Features

Attendant Position (page 37)

The attendant can have Do Not Disturb. In addition, pressing DND at the attendant activates the night mode for any trunks directly terminated to the attendant.

Background Music (page 53)

DND does not affect the operation of Background Music.

Call Forwarding (page 63)

- Call Forwarding considers an extension in DND as busy. In addition, an extension can have both DND and Call Forwarding enabled at the same time.
- Note that Call Forwarding has priority over Do Not Disturb. If both are enabled simultaneously at an extension, Call Forwarding is in force.

Call Waiting / Camp-On (page 88)

An extension cannot Camp-On to a busy co-worker that is in Do Not Disturb.

Callback (page 92)

An extension cannot leave a Callback for a busy co-worker that is in Do Not Disturb.

Do Not Disturb Override (page 224)

Do Not Disturb Override can override an extension's Do Not Disturb.

Night Service / Night Ring (page 389)

The attendant presses DND to put the system in the night mode.

Extension Hunting (page 239)

Placing an agent in DND temporarily removes it from the UCD group.

Hotline (page 302)

An extension user can press their Hotline key twice to override their Hotline partner's DND.

Message Waiting (page 368)

An extension user can leave a Message Waiting at an extension in Do Not Disturb.

Night Service / Night Ring (page 389)

A DIL destination activates the night mode for the DIL when they press DND.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

On- and Off-Premise extensions cannot use DND.

Paging (page 409)

DND blocks Paging announcements.

Reverse Voice Over (page 459)

DND does not block Reverse Voice Over.

Transfer (page 558)


DND blocks Transfer.

Feature Operation

Operation

To enable or disable DND at 22-Button and 34-Button Telephones:

1. Do not lift the handset or press the **SPK** key.
2. Press your **DND** key. You see:



```
DND TYPE : OFF
OFF EXT ICM ALL
```

The first line of the display shows the currently selected DND type.

 || N/A
 || **DND** flashes fast.

3. Select the soft key for the DND type you want to select.

OR

Dial a digit (0-3) for the DND type you want to select.

- 1 (or **EXT**) = Incoming trunk calls blocked
- 2 (or **ICM**) = Incoming Intercom calls blocked
- 3 (or **ALL**) = All calls blocked
- 0 (or **OFF**) = Cancels DND.

If you are on a call (or anytime your phone is not idle), pressing DND automatically enables DND for all calls (type 3). If DND is enabled, pressing DND disables DND.

When DND types 2 or 3 are enabled, Intercom callers hear DND tone and see “DO NOT DISTURB” in their telephone’s display.

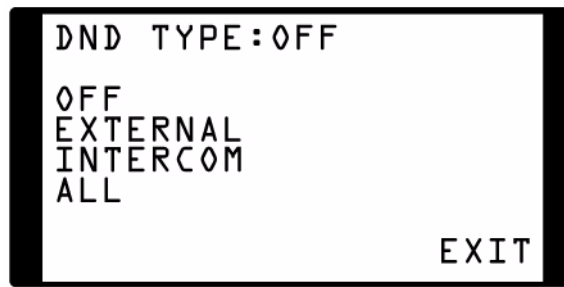
If you don’t make an entry for 10 seconds:

- *If DND is disabled, the system automatically enables DND All Calls.*
- *If DND is disabled, the system automatically cancels DND.*



To enable or disable DND at Super Display Telephones:

1. Do not lift the handset or press the **SPK** key.
2. Press your **DND** key. You see:



The first line of the display shows the currently selected DND type.

3. Select the soft key for the DND type you want to select.
- OR

Dial a digit (0-3) for the DND type you want to select.

- 1 (or **EXTERNAL**) = Incoming trunk calls blocked
- 2 (or **INTERCOM**) = Incoming Intercom calls blocked
- 3 (or **ALL**) = All calls blocked
- 0 (or **OFF**) = Cancels DND.

If you are on a call (or anytime your phone is not idle), pressing DND automatically enables DND for all calls (type 3). If DND is enabled, pressing DND disables DND.

When DND types 2 or 3 are enabled, Intercom callers hear DND tone and see “DO NOT DISTURB” in their telephone’s display.

If you don’t make an entry for 10 seconds:

- *If DND is disabled, the system automatically enables DND All Calls.*
- *If DND is disabled, the system automatically cancels DND.*

To check your extension’s DND type:

- Look at the second line of your display. When you enable Do Not Disturb, the display will show one of the following:

DND ALL
DND EXTERNAL
DND INTERCOM

Do Not Disturb Override

Description



DS1000/2000

Available.



Easily override a co-worker's Do Not Disturb.

Do Not Disturb Override lets an extension user override another extension's Do Not Disturb. This allows a priority employee (such as a supervisor or executive) to get through to a co-worker right away while the co-worker's phone is in Do Not Disturb. DND Override is available to all extensions that have DND Override set in their Class of Service. It is also available to any extension that has a Hotline key for a co-worker, even without the Class of Service option enabled.

Conditions

None.

Default Setting

Do Not Disturb Override is disabled in an extension's Class of Service.

Programming Guide

Step-by-step guide for setting up Do Not Disturb Override

Step 1: Should an extension that is not a Hotline partner be allowed to use DND Override?

If yes



- In *Program 0101 - DND Override* (page 623), enter Y to enable Do Not Disturb Override.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no



- In *Program 0101 - DND Override* (page 623), enter N to disable Do Not Disturb Override.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Programming List

Program 0101 - DND Override (page 623)

If enabled (Y), an extension user can dial 1 or press their DND Override soft key to override an extension's Do Not Disturb. If disabled (N), an extension cannot dial 1 to override an extension's DND and the DND Override soft key is unavailable. (This option does not apply when an extension user presses their Hotline key, since Hotline keys always provide the DND Override option.)

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class or Service to extensions.

Other Related Features

Do Not Disturb (page 220)

Do Not Disturb Override can override an extension's Do Not Disturb.

Feature Operation

To use Do Not Disturb Override:

1. Dial your co-worker.
2. When you hear DND tone and see "DO NOT DISTURB" in your telephone's display:
 - Press **OVRD (DND OVERRIDE)** at Super Display).
 - OR
 - Dial **1**.
3. The system automatically places a ringing Intercom call to your co-worker.
If you hear busy or ring/busy tone after step 2, your co-worker is busy on a call.

Door Box

Description



DS1000
DS2000

Both Digital and Analog Door Boxes are supported. The Expansion Board is required for the second Analog Door Box and relay.

Digital Door Boxes are supported. Analog Door Boxes are not supported.



Use a Door Box to remotely monitor an entrance door. ***The Digital Door Box is no longer available for purchase, but you may find it in existing installations.***

The Door Box is a self-contained Intercom unit typically used to monitor an entrance door. A visitor at the door can press the Door Box call button (like a door bell). The Door Box then sends chime tones to all extensions programmed to receive chimes. To answer the chime, the called extension user just lifts the handset. This lets the extension user talk to the visitor at the Door Box. The Door Box is convenient to have at a delivery entrance, for example. It is not necessary to have company personnel monitor the delivery entrance; they just answer the Door Box chimes instead.



There are two types of Door Boxes: Analog Door Box P/N 92245 and Digital Door Box P/N 80560. Both Door Boxes operate identically. There are, however, some differences:

- The Digital Door Box connects to a digital station port (300-427 in DS2000 or 300-315 in DS1000). The number of Digital Door Boxes you can install may be limited by the System Load Factor. Turn to *DS2000 Load Factor* on page 3 and *DS1000 Load Factor* on page 6 for more.
- The Analog Door Box connects to one of the dedicated DS1000 Door Box ports (i.e., DOOR1 or DOOR2).
- The Analog Door Box is not available in DS2000.
- The Analog Door Box can be mounted outside. Refer to *Section 4, Optional Equipment* in the *Hardware Manual* on the DS1000 System Document CD for more.

The system uses Ring Groups to control Door Box chimes. When a visitor at the door presses the Door Box call button, the Door Box will alert (chime) all the extensions in the Ring Group to which the Door Box belongs. For example, if the Door Box and extensions 301 and 302 are in Ring Group 1, pressing the call button alerts 301 and 302.

Any keyset extension that receives Door Box chimes can control a system relay, which in turn typically enables an electric strike on an entrance door next to a Door Box. After answering the Door Box chimes, the extension user can press FLASH or a soft key to enable the associated relay. The visitor at the door can then enter without having an employee open the entrance for them. In DS2000, there is a single relay on the CPRU PCB. DS1000 has 2 relays, located in the DOOR1 and DOOR2 Analog Door Box jacks. In either system, you can assign these relays for Door Box strike control or Page Relay Control, but not both. (In DS1000, Digital Door Boxes cannot control system relays.)

The equipment you connect to a system relay must be compatible with the following specifications. Refer to your system's Hardware Manual for more on connecting to the system relay contacts.

Table 5: Relay Contact Specifications	
DS1000	
Contact Configuration:	Normally open
Maximum Load:	0.5A @ 120 VAC 1A @ 24 VDC
Maximum Initial Contact Resistance	100 mOhms
D2000	
Contact Configuration:	Normally open
Maximum Load:	60 mA @ 30 VDC 10 mA @ 90 VDC
Maximum Initial Contact Resistance	50 mOhms

Conditions

- The Digital Door Box is a weather-tight unit, with an operating temperature range of 0 to 45 degrees C (32 to 113 degrees F) and a relative humidity of 10-95%, non-condensing. It is not intended for outdoor installation.
- The Analog Door Box is also a weather-tight unit, and can be mounted outside. It has an operating temperature range of -20 to 60 degrees C (-4 to 140 degrees F) and a relative humidity of 10-95%, non-condensing.
- After a visitor at the door presses the Door Box call button and is unanswered, chime types 1-3 sound for the *0401 - Door Unlock Time*. Chime type 0 sounds for 60 seconds.

Default Setting

- No Digital Door Boxes enabled.
- In DS1000, Analog Door Boxes are automatically set up at extensions 324 (DOOR1) and 325 (DOOR 2).

Programming Guide

Step-by-step guide for setting up Door Box
(Page 1 of 3)

Step 1: At the Door Box extension, assign the Door Box circuit type (required for Digital Door Boxes only).

- In *Program 1801 - Extension Circuit Type* (page 754), enter 10 to assign the extension as a Door Box.
- In DS1000, Analog Door Boxes are automatically enabled at extensions 324 (DOOR1) and 325 (DOOR2).

Door Box

Step-by-step guide for setting up Door Box (Page 2 of 3)

Step 2: At the Door Box extension, assign the Door Box chime pattern (i.e., how the Door Box alerts other extensions).

- In *Program 1801 - Door Chime* (page 755), assign the chime pattern to the Door Box:
0 = Normal Ring Group ringing
1 = Low pitch chime pattern
2 = Mid range pitch chime pattern
3 = High pitch chime pattern

Step 3: Set up the Door Box Ring Group. (Pressing the Door Box call button chimes all extensions in the Door Box Ring Group.)

- In *Program 0511 - Ring Group Master Extension Numbers and Names* (page 681), assign a Ring Group master number to the Ring Group assigned as the Door Box Ring Group.
- In *Program 1802 - Ring Group Number* (page 758), assign the Door Box and the extensions that should alert to the same Ring Group.

Step 4: In DS2000, after answering a Door Box call, should an extension be able to remotely release the door strike (via the CPRU relay)?

If yes



- In *Program 1801 - Relay Owner* (page 755), for the Door Box extension enter 1 to assign the CPRU PCB relay to the Door Box.
- In *Program 0201 - CPRU Relay* (page 630), enter 1 to assign the CPRU relay for Door Box control.

If no



- In *Program 1801 - Relay Owner* (page 755), enter 0 to disable the CPRU PCB relay for Door Box calls.

Step 5: In DS1000, after answering an Analog Door Box call, should an extension be able to remotely release the door strike (via the DOOR1 or DOOR2 relays)?

If yes



- In *Program 1801 - Relay Owner* (page 755), for the Analog Door Box extension, assign the DOOR1 or DOOR2 relays.
 - If programming extension 324 (DOOR1), enter 1.
 - If programming extension 325 (DOOR2), enter 2.This option does not apply to Digital Door Boxes in DS1000.
- In *Program 0201 - DOOR1 Relay* (page 630), enter 1 to assign the DOOR1 relay for Analog Door Box control (extension 324).
OR
In *Program 0201 - DOOR2 Relay* (page 630), enter 1 to assign the DOOR2 relay for Analog Door Box control (extension 324).

Step-by-step guide for setting up Door Box (Page 3 of 3)

If no

- In *Program 1801 - Relay Owner* (page 755), enter 0 to disable the CPRU PCB relay for Door Box calls.

Step 6: When an extension user activates (closes) the relay, does it stay closed for the proper interval?

If yes

- In *Program 0401 - Door Unlock* (page 643), do not change the Door Unlock interval.

If no

- In *Program 0401 - Door Unlock* (page 643), change the Door Unlock interval to meet the site requirements. After user activation, the relay remains closed for the Door Unlock interval. After the interval expires, the relay returns to its idle (open) state.

Programming List

Program 0201 - CPRU Relay (page 630)

DS2000 Only

Enter 1 to assign the CPRU relay for Door Box control.

Program 0201 - DOOR1 Relay (page 630)

DS1000 Only

Enter 1 to assign the DOOR1 relay for Analog Door Box control (extension 324).

Program 0201 - DOOR2 Relay (page 630)

DS1000 Only

Enter 1 to assign the DOOR2 relay for Analog Door Box control (extension 325).

Program 0401 - Door Unlock (page 643)

Enter the interval that the relay should remain closed after a keyset user activates (closes) the relay. After this interval, the relay automatically returns to its idle (open) state.

Program 0511 - Ring Group Master Extension Numbers and Names (page 681)

Assign a Ring Group master number to the Ring Group assigned as the Door Box Ring Group.

Program 1801 - Extension Circuit Type (page 754)

Enter 10 to assign the extension as a Door Box.

Program 1801 - Door Chime (page 755)

For a Door Box extension, enter the Door Chime type (0=normal Ring Group ringing, 1=low pitch chime pattern, 2=mid range pitch chime pattern, 3=high pitch chime pattern).

Program 1801 - Relay Owner (page 755)

DS2000 Only

For the Door Box extension, enter 1 to assign the CPRU PCB relay to the Door Box. Enter 0 to disable the CPRU PCB relay for Door Box calls.

DS1000 Only

For the Analog Door Box extensions, use this option to assign the DOOR1 or DOOR2 relays.

- When programming extension 324 (DOOR1), enter 1.

- When programming extension 325 (DOOR2), enter 2.

This option does not apply to Digital Door Boxes in DS1000.

Program 1802 - Ring Group Number (page 758)

Assign the Door Box and the extensions that should alert to the same Ring Group.

Door Box

Other Related Features

Attendant Position (page 37)

An operator can monitor a Door Box by having a Call Coverage key to monitor ringing and a Hotline key to call the Door Box.

Call Coverage Keys (page 59)

If you enter Door Chime type 0 (normal ring) above, you can set up Call Coverage keys for the Door Box Ring Group. This allows extensions that are not members of the Ring Group to answer Door Box calls. Extensions with Call Coverage keys to the Door Box Ring Group can also activate the relay.

Hotline (page 302)

An extension user can have Hotline keys for Door Boxes.

Message Waiting (page 368)

An extension user cannot leave a Message Waiting at a Door Box.

Off-Hook Signaling (page 394)

A Door Box can automatically send off-hook signals to the assigned extension.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

Single line telephones can only receive Door Chime type 0 (normal ring). While connected to the Door Box, an SLT can hookflash to control the system relay.

Paging (page 409)



Door Box chimes can broadcast over the External Paging speakers.

Feature Operation

Calling from the Door Box

To place a call from the Door Box:

1. Press the Door Box call button.



 || Ringing or chimes.
 || N/A.

2. When someone inside the building answers your call, speak toward the Door Box.

Calling to the Door Box

To place a call to the Door Box from a Keypad:

1. Lift handset and press **ICM**.

 || Intercom dial tone.
 || **ICM** and **SPK** on.

2. Dial the Door Box extension number.

 || Two beeps, then conversation with visitor at door.
 || **ICM** and **SPK** on.

To place a call to the Door Box from a Single Line Telephone:

1. Lift handset.



 || Intercom dial tone.

2. Dial the Door Box extension number.

 || Two beeps, then conversation with visitor at door.

Answering the Door Box Chimes or Ringing

To answer the Door Box Chimes or Ringing from a keyset:

 || Ringing or chimes.
 || N/A.

1. Lift handset or press **SPK**.

To answer the Door Box Ringing from a Single Line Telephone:

 || Ringing.

1. Lift handset.

Door Box chimes are not available at single line telephones.

Controlling the Door Box Strike

At a keyset, to control the relay which in turn controls the door strike:

Once set up in programming, this option is available to any member of the Door Box Ring Group as well as any extension with a Call Coverage Key for the Door Box Ring Group.

1. Place or answer Door Box call.
2. To open the relay, press **FLASH** key or **OPEN** soft key.
3. To close the relay, press **FLASH** key again or **CLOSE** soft key.

At a single line set, to control the relay which in turn controls the door strike:

Once set up in programming, this option is available to any single line telephone that is a member of the Door Box Ring Group.

1. Place or answer Door Box call.
2. To open the relay, hookflash.
3. To close the relay, hookflash again.

Equal Access Compatibility

Description



DS1000/2000

|| Available. See *Toll Restriction* on page 549 for more.

Description



DS1000/2000

Available.



New database method that provides for advanced features like IntraMail and DS2000 Automatic Slot Configuration.

When setting up your system, do not exceed the system's Load Factor capacity.

The Expanded Database is a new database method that provides database records (memory) for all possible extensions, trunks, Hunt Groups, Ring Groups, and Voice Mail ports. This new capability allows for:

- Automatic Slot Configuration in DS2000.
- Simplified installation of Voice Mail, Hunt Groups, and Ring Groups.
- Support for built-in UltraMail (DS2000 only) and IntraMail Voice Mail
- Introduction of the DS Series PC Program.

To understand the Expanded Database, you'll need to keep track of three things: port, station (or trunk) number, and extension number.

- **Port**
The port is where the device you are programming connects to the system. For example, in DS2000 each 16DSTU PCB has 16 ports which can connect up to 16 digital telephones.
 - In DS2000, ports are numbered consecutively for each slot, and only exist when you plug in the PCB to which the device should connect.
 - In DS1000, there is a separate set of ports for digital stations, analog stations, analog Door Boxes, and trunks.
- **Station Number and Trunk Number**
The station or trunk number is the element in software that keeps track of the connected devices's programming. Station and trunk numbers (and associated database records) exist for all possible devices you can connect to the system, even if you don't have any ports installed to connect them. You can't call station and trunk numbers directly - you need the associated extension numbers to do that (see below).
- **Extension Numbers**
Extension numbers allow you to access the stations and trunks. By default, each station and trunk number has an extension number assigned to it. You can change these assignments if you want to.
 - Digital station ports have primary and secondary station numbers. The primary station's extension number is used to call the device connected to the port. The secondary station's extension number calls the second channel on 2-channel devices such as 2-OPX Modules and Digital VANGARD Voice Mail ports.

Expanded Database

Default Numbering in DS1000

Here is how the ports, station numbers, trunk numbers, and extension numbers are initially set up in DS1000:

Default Numbering in DS1000			
Stations (Telephones)	Ports	Station Numbers	Extension Numbers
Digital Station	1-16	1-16	300-315
Analog Station	1-8	17-24	316-323
Door Box	1, 2	25-26	324, 325
Unassigned ¹	-	27-34	326-333
Total Station Ports	34	-	-
<ul style="list-style-type: none"> To find out the default extension number for any station number, add 299 to the station number. <ul style="list-style-type: none"> For example, station number 1 uses extension number 300 (1 + 299). 			
Trunks	Ports	Trunk Numbers	Extension Numbers
Trunk Ports	1-6	1-6	101-106
Total Trunk Ports	6	-	-
<ul style="list-style-type: none"> To find out the default extension number for a trunk number, add 100 to the trunk number. <ul style="list-style-type: none"> For example, trunk number 1 uses extension number 101 (1 + 100). 			
Voice Mail Ports	Ports	Station Numbers	Extension Numbers
	-	201-208	500-507
UCD Groups	Total Groups	UCD Group Master Extension Numbers	
	8	700-707	
Ring Groups	Total Groups	Ring Group Master Extension Numbers	
Ring Group Masters	8	600-607	
¹ Available for digital station port secondary station numbers. These are used for the second channels on 2-OPX Modules and Digital VANGARD Voice Mail.			

Default Numbering in DS2000

Here is how the ports, station numbers, trunk numbers, and extension numbers are initially set up in DS2000.

Default Numbering in DS2000			
Stations (Telephones)	Ports	Station Numbers	Extension Numbers
Station	Set by installed PCB	1-96	300-395
Unassigned ¹	32	97-128	396-427
Total Station Ports	128	-	-
<ul style="list-style-type: none"> To find out the default extension number for any station number, add 299 to the station number. - For example, station number 1 uses extension number 300 (1 + 299). 			
Trunks	Ports	Trunk Numbers	Extension Numbers
Trunk Ports	Set by installed PCB	1-64	101-164
Total Trunk Ports	64	-	-
<ul style="list-style-type: none"> To find out the default extension number for a trunk number, add 100 to the trunk number. - For example, trunk number 1 uses extension number 101 (1 + 100). 			
Voice Mail Stations	Station Numbers		Extension Numbers
	201-208		500-507
UCD Groups	Total Groups	UCD Group Master Extension Numbers	
	8	700-707	
Ring Groups	Total Groups	Ring Group Master Extension Numbers	
Ring Group Masters	8	600-607	
¹ Available for digital station port secondary station numbers. These are used for the second channels on 2-OPX Modules and Digital VANGARD Voice Mail.			

The following table shows the port capacity of each DS2000 PCB.

DS2000 PCB Port Capacities		
PCB	Description	Port Capacity
Station PCBs		
16DSTU PCB	16 Digital Station PCB	16 (1-16)
4ASTU PCB	4 Analog Station PCB	4 (1-4)
8ASTU PCB	8 Analog Station PCB	8 (1-8)
Trunk PCBs		
4ATRU PCB	4 Analog Trunk PCB	4 (1-4)
8ATRU PCB	8 Analog Trunk PCB	8 (1-8)
T1/E1 PCB	T1/E1 PCB	24 (1-24) when enabled for T1 30 (1-30) when enabled for E1

Since the Expanded Database maintains database records for all extensions and trunks, in DS2000 you have the option of using **Program 9902 - Set Up Stations (DS2000)** (page 796) and **Program 9903 - Set Up Trunks (DS2000)** (page 803) to assign a station and a trunk PCB *to the same slot*. When you plug in an ASTU or DSTU PCB into the slot, the ports on the PCB access the associated station numbers. If you remove that PCB and plug an ATRU in its place, the ports on the ATRU PCB access the associated trunk numbers.

Expanded Database

Conditions

None

Default Setting

Always enabled.

Programming Guide

None

Programming List

Program 9902 - Set Up Stations (DS1000) (page 793)

Set up DS1000 stations.

Program 9902 - Set Up Stations (DS2000) (page 796)

Set up DS2000 stations.

Program 9903 - Set Up Trunks (DS1000) (page 801)

Set up DS1000 trunks.

Program 9903 - Set Up Trunks (DS2000) (page 803)

Set up DS2000 trunks.

Other Related Features

Automatic Slot Configuration (DS2000) (page 49)

The system automatically installs PCBs when you power up the system.

Feature Operation

None

Description



DS1000/2000 || Available.



Lets calls ring longer that usual to assist co-workers that can't readily get to their phones.

Extended Ringing forces an unanswered call to ring a telephone an extended number of times before rerouting. This helps users that cannot get to their phones quickly to pick up calls (such as a warehouse worker). Extended Ringing is available with the following features:

- Direct Inward Line
DILs ring for an extended period before routing to the overflow destination.
- Transfer
Transferred trunks ring for an extended period before recalling the transferring extension.

Conditions

None

Default Setting

Disabled.

Programming Guide

Step-by-step guide for setting up Extended Ringing

Step 1: Should extension have Extended Ringing capability?

If yes

- In *Program 0101 - Extended Ring* (page 618), enter Y to enable Extended Ringing.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Extended Ring* (page 618), enter N to disable Extended Ringing.

Step 2: When Extended Ringing is enabled, does the extension ring an adequate number of times before the call reroutes?

If yes

- In *Program 0403 - Number of Extended Rings* (page 656), leave the entry at its current setting.

If no

- In *Program 0403 - Number of Extended Rings* (page 656), enter a new Extended Ringing value that meets the site's requirements.

Extended Ringing

Programming List

Program 0101 - Extended Ring (page 618)

In an extension's Class of Service, enter Y to enable Extended Ringing.

Program 0403 - Number of Extended Rings (page 656)

Set the duration of the Extended Ringing.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Key Ring (page 344)

With Extended Ringing, a call rings longer at its destination before diverting to Key Ring.

Transfer (page 558)

With Extended Ringing enabled, transferred trunks ring the destination extension for the *Number of Extended Rings* before recalling the transferring extension.

Feature Operation

None

Description



DS1000/2000

In software version 03.10.08 and higher, Calls to a UCD Hunting Group *will not* follow Call Forwarding at a group member's extension.



Automatically route calls to co-workers that work closely together.

Extension Hunting routes calls to a predefined group of hunt group member extensions. A call rings in sequence through the hunt group until answered at a member extension. Extension Hunting is helpful, for example, for a group of co-workers that share responsibility for answering calls. Each call cycles through the group until an available member picks it up.

There are three types of Extension Hunting:

- Circular Hunting
- Terminal Hunting
- Uniform Call Distribution (UCD) Hunting

Circular Hunting

A Circular Hunting group consists of a group of extensions programmed into a Circular Hunting list. A call unanswered at a member extension rings the next extension in the programmed list. If unanswered, the call will continue to cycle through the hunt group. Depending on the hunt type (see below), Circular Hunting will occur for transferred trunk calls, DILs to a hunt group member, and ringing Intercom calls. Hunting does not occur for Key Ring and Ring Group calls.

There are four types of Circular Hunting:

- **Ring No Answer Trunk** (Option 1)
Hunting will occur for unanswered trunk calls. Hunting will not occur for unanswered ringing Intercom calls or while the member extension is busy.
- **Busy/Ring No Answer Trunk** (Option 2)
Hunting will occur for unanswered trunk calls and for trunk calls to the member extension while it is busy. Hunting will not occur for ringing Intercom calls.
- **Busy/Ring No Answer All Calls** (Option 3)
Hunting will occur for unanswered trunk and ringing Intercom calls, and for trunk and ringing Intercom calls to the member extension while it is busy.
- **Busy Trunk** (Option 4)
Hunting will occur for trunk calls to the member extension while it is busy. Hunting will not occur for unanswered trunk and ringing Intercom calls.

Extension Hunting

Circular Hunting Notes:

When setting up Circular Hunting, *do not program the last extension in the group to hunt back to the first*. Instead, program the last extension to hunt to the second extension in the group.

- To achieve Circular Hunting, send calls to the first extension in the group.
- See *Step-by-Step Guide to Setting up Circular Hunting* on page 243 for more on programming Circular Hunting.

Programmed Hunt Order
302 → 303 → 304 → 305 → 302

- Send call to extension 302.
- Hunting will not proceed past extension 305. If the call is unanswered at 305, it follows normal recall/routing programming.
- For example, a transferred call will recall the transferring extension and, if still unanswered, go to Key Ring.

Programmed Hunt Order
302 → 303 → 304 → 305 → 303

- Send call to extension 302.
- Hunting will circulate normally, excluding extension 302.

- For type 3 hunting, an Intercom call will stop hunting when it voice-announces. Extension Hunting follows the Handsfree Answerback/Forced Intercom Ringing setup at each extension.
- Placing an extension in DND temporarily removes it from the Circular Hunting group.

Terminal Hunting

A Terminal Hunting group consists of a group of extensions programmed into a Terminal Hunting list. A call unanswered at a member extension rings the next extension in the programmed list. The call will cycle through the group once, until it reaches the last extension in the list. Unlike Circular Hunting, the call will not cycle back to the top of the hunt list. Depending on the hunt type (see below), Terminal Hunting will occur for transferred trunk calls, DILs to a hunt group member, and ringing Intercom calls. Hunting does not occur for Key Ring and Ring Group calls.

Just like Circular Hunting, there are four types of Terminal Hunting:

- **Ring No Answer Trunk** (Option 1)
Hunting will occur for unanswered trunk calls. Hunting will not occur for unanswered ringing Intercom calls or while the member extension is busy.
- **Busy/Ring No Answer Trunk** (Option 2)
Hunting will occur for unanswered trunk calls and for trunk calls to the member extension while it is busy. Hunting will not occur for ringing Intercom calls.
- **Busy/Ring No Answer All Calls** (Option 3)
Hunting will occur for unanswered trunk and ringing Intercom calls, and for trunk and ringing Intercom calls to the member extension while it is busy.
- **Busy Trunk** (Option 4)
Hunting will occur for trunk calls to the member extension while it is busy. Hunting will not occur for unanswered trunk and ringing Intercom calls.

Terminal Hunting Notes:

- If a call cycles through the entire Terminal Hunting group and remains unanswered, it follows normal recall/routing programming. For example, a transferred call will recall the transferring extension and, if still unanswered, go to Key Ring.
- Placing an extension in DND temporarily removes it from the Terminal Hunting group.
- For type 3 hunting, an Intercom call will stop hunting when it voice-announces. Extension Hunting follows the Handsfree Answerback/Forced Intercom Ringing setup at each extension.

Uniform Call Distribution (UCD) Hunting

Like Circular and Terminal Hunting, a UCD Hunting group also consists of a group of extensions programmed into a hunt list. The system routes calls into a UCD group according to the frequency of use of the member extensions. The first extension rung is the member that has been idle the longest. The last extension rung is the member that has been idle the shortest.

Each member of the group is additionally associated with a UCD Master Extension Number. To activate UCD hunting, an incoming call must route to the UCD master number. This is done by placing an Intercom call to the master number, transferring a call to the master number or setting up a DIL to the master number. When all members of the UCD Hunting group are busy, the call can route to the programmed UCD Overflow destination.

UCD Hunting and Call Coverage Keys

If an extension has a Call Coverage key for a UCD group, the key will ring if a call comes into the group while all members are busy. This allows extension users to “cover” UCD groups when they are busy.

If you set up the UCD group with no members, the Call Coverage key will ring whenever a call comes into the group. This type of group functions as a “dummy” (phantom) extension.

- Calls to the “dummy” extension activate the Call Coverage keys on the covering extensions.
- Co-workers can transfer calls into the group. They will ring all Call Coverage keys for the group. If unanswered, a call transferred into the group follows the programmed UCD Group overflow destination (as do unanswered calls). It will not recall to the transferring party.
- A night key for the group will control the night termination of any Direct Inward Lines (DILs) terminated to the group. For example, you can have a DIL to the UCD group during the day (e.g., 701) and IntraMail at night (e.g., 700). When an extension user presses the night key for the group, the DILs route to IntraMail.
- DILs to the group ring the Call Coverage keys on the covering extensions.

UCD Hunting Notes:

- Unanswered transferred calls and DILs continue to cycle through the UCD group as long as an agent is available.
- Placing an extension in Do Not Disturb temporarily removes it from the UCD group.
- Intercom calls to the UCD master number always ring the agent extensions.
- You can set up a UCD Group to overflow to Voice Mail. Use *Program 0510 - Overflow Destination* on page 679 to set up this option. Do not use *Program 1003 - Day Overflow Destination* on page 712.
- To put DILs to a UCD master number into the night mode, press a uniquely programmed System Mode UCD Master Night key. See **Night Service / Night Ring** (page 389) for more.

Conditions

None

Default Setting

- Hunting not set up.

Extension Hunting

- UCD Hunting Group master numbers are predefined as shown in the following table. If required, you can reassign the UCD Hunting Group master numbers to any other *unused* extension number (100-899). See *0502 - Station Extension Assignments* on page 676 for more.

0510 UCD Hunting Group Default Assignments	
UCD Hunting Group	Default Master Number
1	700
2	701
3	702
4	703
5	704
6	705
7	706
8	707

Programming Guide

Step-by-step guide for setting up Circular Hunting

Step 1: Assign the hunt type to each extension in the Circular Hunting group.

- In *Program 1807 - Hunt Type* (page 772), enter the hunt type for each extension in the hunt group:
 - 1 = Ring No Answer Trunk
 - 2 = Busy/Ring No Answer Trunk
 - 3 = Busy/Ring No Answer All Calls
 - 4 = Busy Trunk

Step 2: Set up the hunt destination routing.

- In *Program 1807 - Hunt Destination* (page 772), set up the circular hunt routing. Each extension should route to the next in the group. In addition, the last extension should route back to the first.

Step 3: Do calls ring each hunt group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes



If no



- In *Program 0401 - Transfer Recall* (page 642), leave the entry at its current setting.
- In *Program 0401 - Transfer Recall* (page 642), change the Transfer Recall interval to meet the site requirements. (This setting also determines how long a trunk call waits at a busy member extension before routing.)

Step 4: Does a DIL to a hunt group member ring for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes



If no



- In *Program 0401 - DIL No Answer* (page 643), leave the entry at its current setting.
- In *Program 0401 - DIL No Answer* (page 643), change the DIL No Answer interval to meet the site requirements.

Extension Hunting

Step-by-step guide for setting up Terminal Hunting (Page 1 of 2)

Step 1: Assign the hunt type to each extension (except for the last) in the Terminal Hunting group.

- In *Program 1807 - Hunt Type* (page 772), enter the hunt type for each extension in the hunt group:
 - 1 = Ring No Answer Trunk
 - 2 = Busy/Ring No Answer Trunk
 - 3 = Busy/Ring No Answer All Calls
 - 4 = Busy Trunk

Step 2: Make sure the last extension in the Terminal Hunting group has hunting undefined.

- In *Program 1807 - Hunt Type* (page 772), press CLEAR for the last extension in the Terminal Hunting group.

Step 3: Set up the hunt destination routing (except for the last extension in the group).

- In *Program 1807 - Hunt Destination* (page 772), set up the terminal hunt routing. Each extension should route to the next in the group (except for the last — see below).

Step 4: Make sure the last extension in the Terminal Hunting group has no hunt destination.

- In *Program 1807 - Hunt Destination* (page 772), press CLEAR for the last extension in Terminal Hunting group.

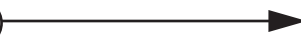
Step 5: Do calls ring each hunt group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes



- In *Program 0401 - Transfer Recall* (page 642), leave the entry at its current setting.

If no



- In *Program 0401 - Transfer Recall* (page 642), change the Transfer Recall interval to meet the site requirements. (This setting also determines how long a trunk call waits at a busy member extension before routing.)

Step-by-step guide for setting up Terminal Hunting (Page 2 of 2)

Step 6: Does a DIL to a hunt group member ring for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes

- In *Program 0401 - DIL No Answer* (page 643), leave the entry at its current setting.

If no

- In *Program 0401 - DIL No Answer* (page 643), change the DIL No Answer interval to meet the site requirements.

Step 7: Do you want to set up an extension to overflow to Voice Mail when unanswered, busy or in DND?

If yes

- In *Program 1807 - Hunt Type* (page 772), enter 3.
- In *Program 1807 - Hunt Destination* (page 772), enter the Voice Mail master number.

If no

- Stop.

Extension Hunting

Step-by-step guide for setting up UCD Hunting (Page 1 of 2)

Step 1: Set up the UCD Hunting group master number.

- In *Program 0510 - Hunt Group Master Number* (page 679), assign the UCD Hunting group master number.
- UCD Hunting group master numbers are normally 700-707.

Step 2: When all extensions in the UCD group are busy, should calls to the UCD group overflow to an alternate destination?

- In *Program 0510 - Overflow Destination* (page 679), enter the UCD overflow destination. The destination can be an extension, Ring Group master number or another UCD Hunting group master number.

Step 3: Assign hunt type 05 to each member of the UCD group.

- In *Program 1807 - Hunt Type* (page 772), make sure each extension in the UCD group has hunt type 05.

Step 4: Make sure each extension in the hunt group has the same master number assignment.

- In *Program 1807 - Hunt Master Number* (page 772), make sure each extension in the same UCD group has the same master number. Refer to **Program 0510 - Hunt Group Master Number** (page 679) when setting up master numbers.

Step 5: When all UCD group members are busy, do calls queue for the correct interval (i.e., neither too long nor too short) before routing to the overflow destination?

If yes



If no



- In *Program 0401 - ACD/UCD Overflow* (page 644), leave the entry at its current setting.
- In *Program 0401 - ACD/UCD Overflow* (page 644), change the ACD/UCD Overflow interval to meet the site requirements.

Step 6: Do calls ring each idle hunt group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes



- In *Program 0403 - Call Forward Ring No Answer* (page 655), leave the entry at its current setting.

Step-by-step guide for setting up UCD Hunting (Page 2 of 2)

If no

- In *Program 0403 - Call Forward Ring No Answer* (page 655), change the Call Forward Ring No Answer interval to meet the site requirements.

Step 7: Does a DIL to the UCD master ring an idle group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes

- In *Program 0401 - DIL No Answer* (page 643), leave the entry at its current setting.

If no

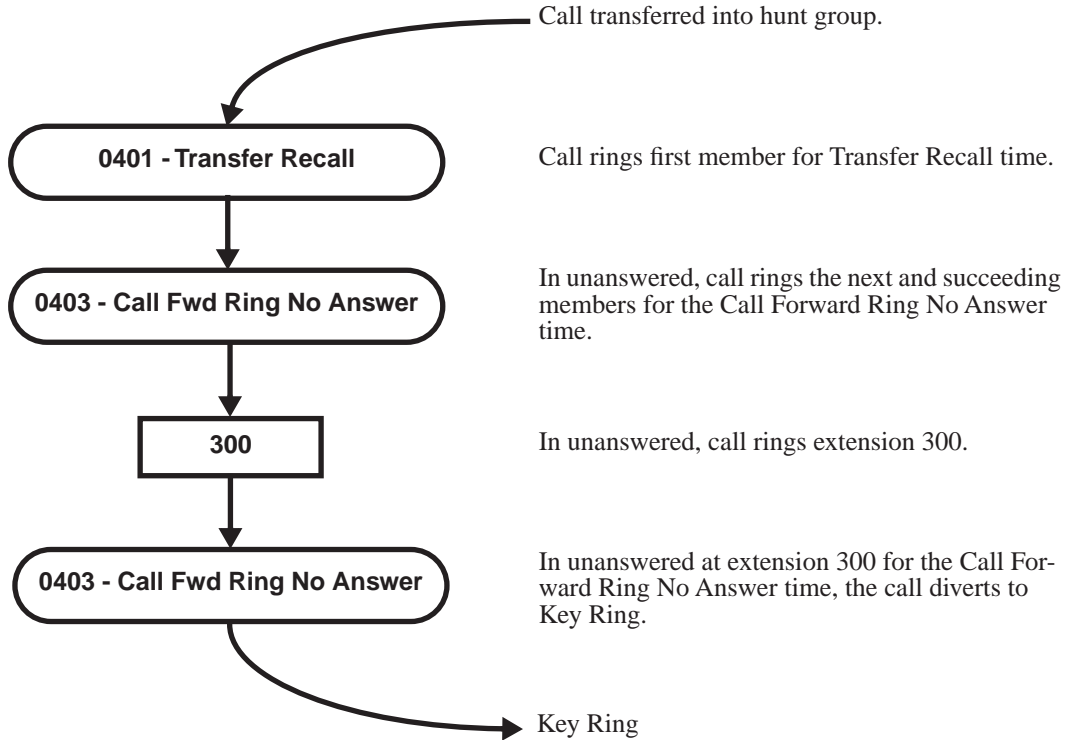
- In *Program 0401 - DIL No Answer* (page 643), change the DIL No Answer interval to meet the site requirements.

Extension Hunting

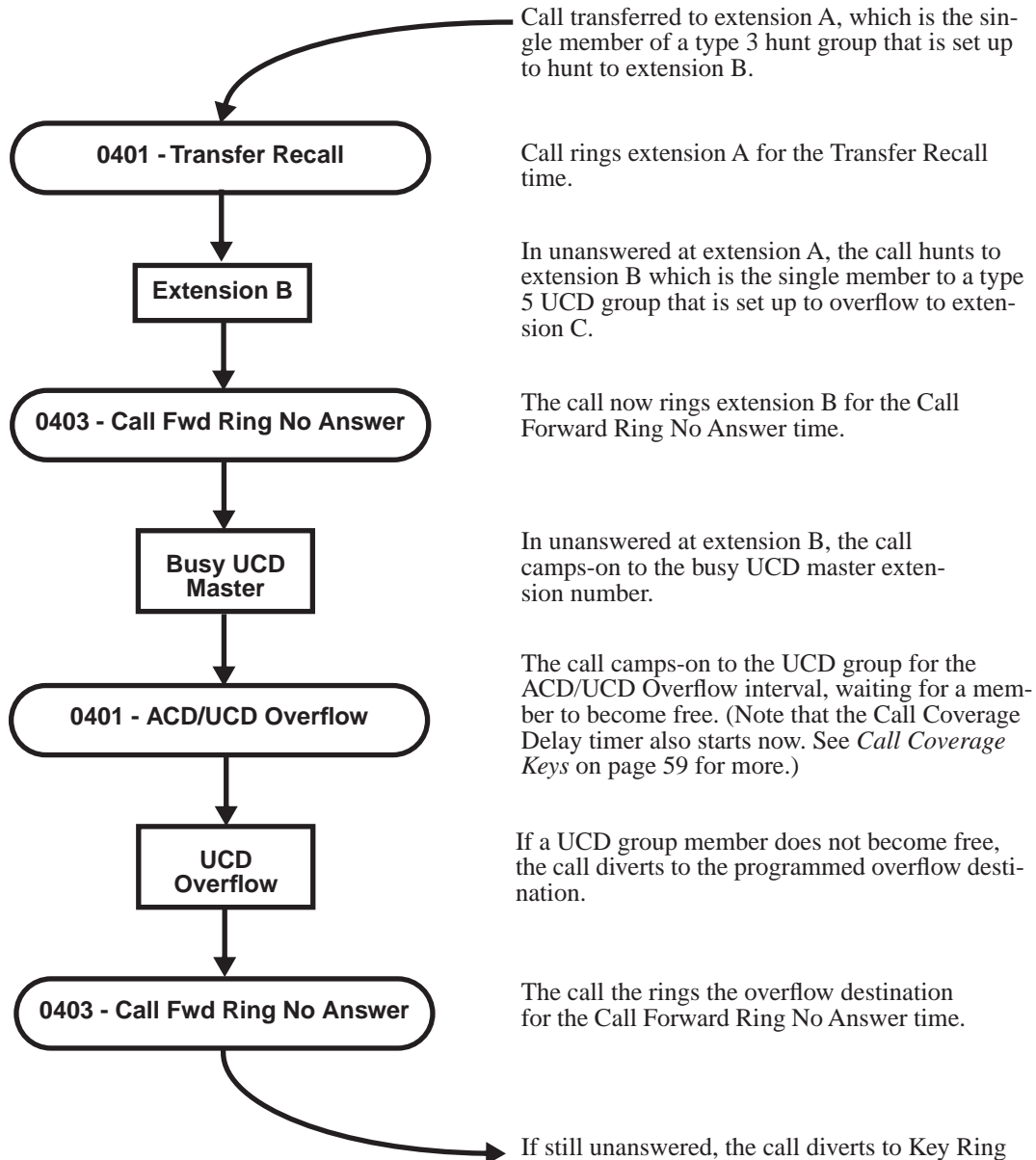
Extension Hunting Timers

The following diagrams show how the system implements various timers when handling Extension Hunting calls.

Transfer to Hunt Group Busy/Ring No Answer All Calls (Type 3) Circular and Terminal Hunting

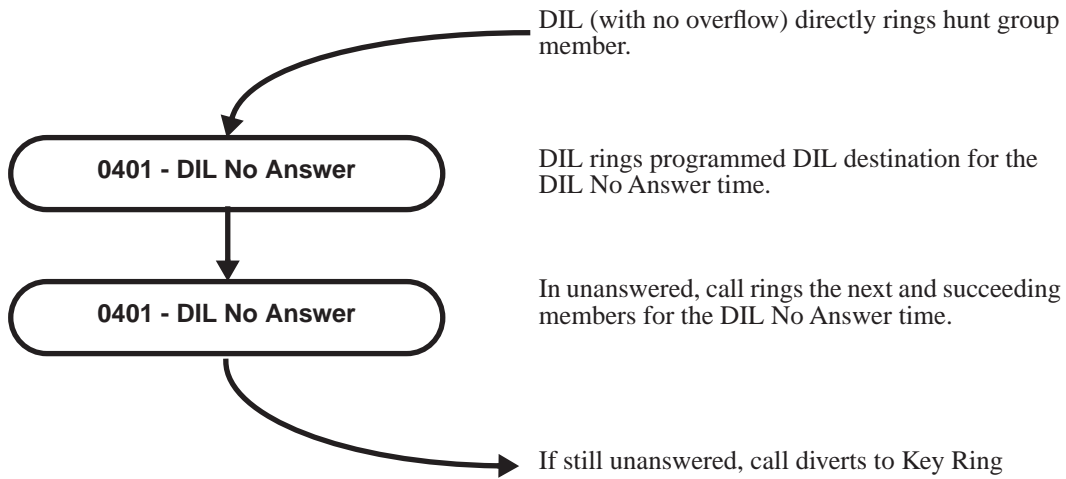


Transfer to Hunt Group Busy/Ring No Answer All Calls (Type 3) Circular and Terminal Hunting Routing to Busy UCD Group with Overflow

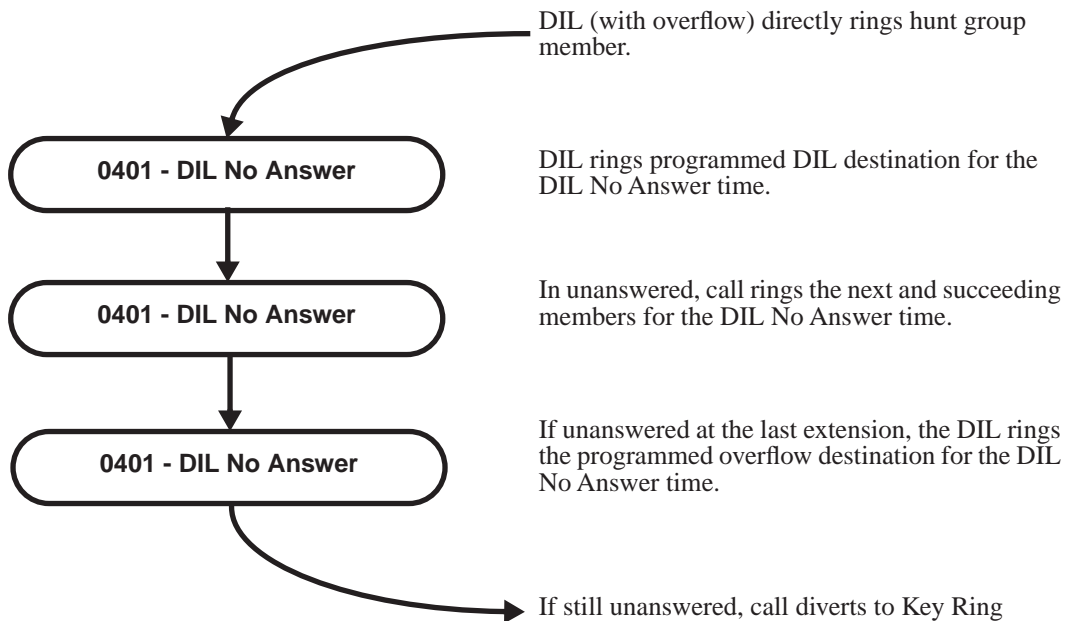


Extension Hunting

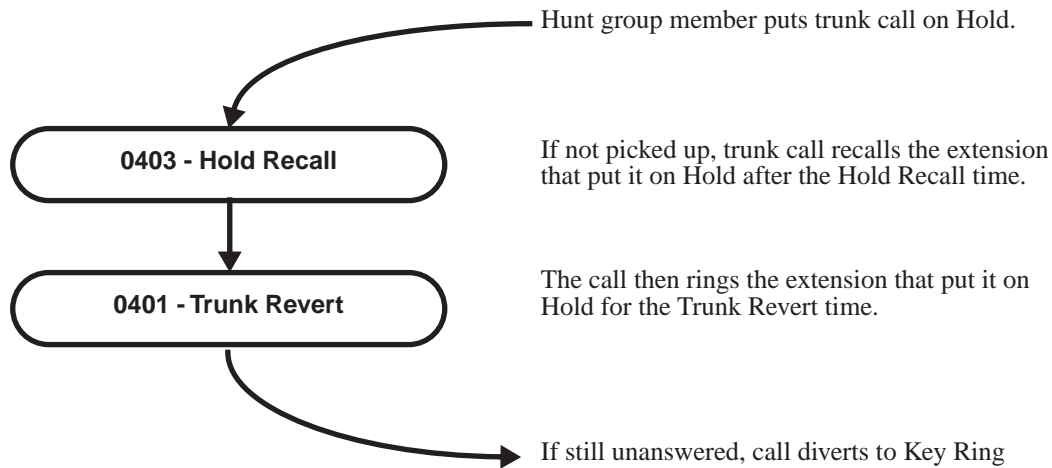
DIL (no overflow) to Hunt Group Busy/Ring No Answer All Calls (Type 3) Circular and Terminal Hunting



DIL (with overflow) to Hunt Group Busy/Ring No Answer All Calls (Type 3) Circular and Terminal Hunting



**Trunk Call on Hold at Hunt Group Member
Busy/Ring No Answer All Calls (Type 3)
Circular and Terminal Hunting**



Programming List

Circular Hunting

Program 0401 - Transfer Recall (page 642)

Set how long a trunk call waits at a busy member extension. This interval also sets how long a call rings each member extension as it cycles through the group.

Program 0401 - DIL No Answer (page 643)

Set how long a DIL rings its destination member extension before cycling through the group.

Program 0403 - Call Forward Ring No Answer (page 655)

Set how long a call rings an idle UCD Hunting group member before cycling to the next extension in the group.

Program 1807 - Hunt Type (page 772)

Enter the same hunt type for all extensions in the Circular Hunting group. The available hunt types are: 1 (Ring No Answer Trunk), 2 (Busy/Ring No Answer Trunk), 3 (Busy/Ring No Answer All Calls), and 4 (Busy Trunk)

Program 1807 - Hunt Destination (page 772)

For each extension, enter the next extension in the hunt group. Be sure the last extension points back to the first extension.

Refer to the table below for a Circular Hunting programming example.

Circular Hunting Programming (for 301, 303 and 304)	
1807: Hunt Type	Enter the same Hunt Type for all three extensions: 1 = Ring No Answer Trunk 2 = Busy/Ring No Answer Trunk 3 = Busy/Ring No Answer All Calls 4 = Busy Trunk
1807: Hunt Destination	
301	303
303	304

Extension Hunting

Circular Hunting Programming (for 301, 303 and 304)	
304	301 (This causes hunting to loop back to 301)
0401: Transfer Recall Time	This timer sets how long a trunk call waits at a busy member extension. It also sets how long a call rings each member extension as it cycles through the group.
0401: DIL No Answer Time	This timer sets how long a DIL rings its destination member extension before cycling through the group.

Terminal Hunting

Program 0401 - Transfer Recall (page 642)

Set how long a trunk call waits at a busy member extension. This interval also sets how long a call rings each member extension as it cycles through the group.

Program 0401 - DIL No Answer (page 643)

Set how long a DIL rings its destination member extension before cycling through the group.

Program 1807 - Hunt Type (page 772)

Enter the same hunt type for all extensions in the Terminal Hunting group, *except for the last extension*. The last extension should have hunting undefined (by pressing CLEAR). The available hunt types are: 1 (Ring No Answer Trunk), 2 (Busy/Ring No Answer Trunk), 3 (Busy/Ring No Answer All Calls), and 4 (Busy Trunk)

Program 1807 - Hunt Destination (page 772)

For each extension *except for the last extension*, enter the next extension in the hunt group. Be sure the destination for the last extension is undefined (by pressing CLEAR).

Refer to the table below for a Terminal Hunting programming example.

Terminal Hunting Programming (for 301 and 303)	
1807: Hunt Type	Enter the same Hunt Type for all three extensions: 1 = Ring No Answer Trunk 2 = Busy/Ring No Answer Trunk 3 = Busy/Ring No Answer All Calls 4 = Busy Trunk (Make sure hunting is not defined at 304.)
1807: Hunt Destination	
301	303
303	304
304	Press CLEAR to undefine entry. (Hunting stops at 304.)
0401: Transfer Recall Time	This timer sets how long a trunk call waits at a busy member extension. It also sets how long a call rings each member extension as it cycles through the group.
0401: DIL No Answer Time	This timer sets how long a DIL rings its destination member extension before cycling through the group.

UCD Hunting

Program 0401 - ACD/UCD Overflow (page 644)

This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the destination set in **Program 0510 - Overflow Destination** (page 679).

Program 0510 - Hunt Group Master Number (page 679)

Define the master extension number for the UCD hunt group. UCD Hunting group master numbers are normally 700-707.

Program 0510 - Overflow Destination (page 679)

Define the overflow destination for the UCD hunt group. When all UCD group members are busy, calls the to master number ring the overflow destination instead.

Program 1807 - Hunt Type (page 772)

Enter hunt type 05 for all extensions in the UCD Hunting group.

Program 1807 - Hunt Destination (page 772)

For each extension in the UCD Hunting group, enter the master number defined in **Program 0510 - Hunt Group Master Number** (page 679).

Refer to the table below for a UCD Hunting programming example.

UCD Hunting Programming (for 301, 303 and 304 with master 750)	
0510: Hunt Group Master Number	Select UCD Group 2 and assign master number 750.
0510: UCD Overflow Destination	Enter 305
1807: Hunt Type	Enter the Hunt Type 5 for all three extensions.
1807: Hunt Master Number	Enter 750 for all three extensions.
0401: UCD Overflow Timer	This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the destination set in Program 0510 - Overflow Destination (page 679).

Extension Hunting

Other Related Features

Call Coverage Keys (page 59)

A keyset can have a Call Coverage key for a UCD Group master number. The key will ring if a call comes into the group while all members are busy.

Call Forwarding (page 63)

- If a member of a Circular or Terminal Hunting group forwards their calls, hunting will follow Call Forwarding.
- In software version 03.10.08 or higher, calls to a UCD Hunting Group *will not* follow Call Forwarding at a group member's extension. However, calls directed to the group member's extension (such as DILs and transferred calls) *will* follow the Call Forwarding set up at the extension. In software versions prior to 03.20.08, Call Forwarding at a group member's extension would pull a UCD call out of the group and send it to the programmed forwarding destination.

Direct Inward Line (page 170)

DILs to a Circular or Terminal Hunting group member initiate hunting. In addition, DILs to a UCD master number ring the UCD group directly. To put DILs to a UCD master number into the night mode, press a uniquely programmed System Mode UCD Master Night key. See *Night Service / Night Ring* on page 389 for more.

Directory Dialing (page 195)

Intercom Directory Dialing will show UCD Group names.

Do Not Disturb (page 220)

Placing an agent in DND temporarily removes it from the UCD group.

Flexible Numbering Plan (page 267)

UCD Hunting group master numbers cannot be in the extension (300-427 in DS2000 or 300-333 in DS1000) or trunk (101-164 in DS2000 or 101-106 in DS1000) number range. By default, the system uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.

Group Ring (page 279)

Group Ring calls do not activate hunting.

Intercom (page 339)

Voice-announced Intercom calls do not initiate hunting.

Music on Hold (page 381)

If Music on Hold is enabled for transferred calls, a caller transferred to a busy UCD group hears MOH.

Night Service / Night Ring (page 389)

To put DILs to a UCD master number into the night mode, press a uniquely programmed System Mode UCD Master Night key.

Transfer (page 558)

- Trunk calls transferred to a Terminal or Circular Hunting group member activate hunting. In addition, trunk calls transferred to a UCD group master number activate hunting.
- When handling Transfer recalls, Call Forwarding has priority over Extension Hunting. See *Interaction Between Call Forwarding, Extension Hunting, and Transfer Recall* on page 560 for more.

Voice Mail (page 580)

- To set up extension overflow to Voice Mail:
 - In *Program 1807 - Hunt Type* on page 772, enter Hunt Type 3.
 - In *Program 1807 - Hunt Destination* on page 772, designate the Voice Mail master number as the Hunt Destination.
Unanswered calls, in addition to calls to the extension while it is busy or in DND, route the extension's mailbox.
- For Terminal and Circular Hunting, unsupervised transfers (UTRF) from the Voice Mail Automated Attendant route like trunk calls. Supervised transfers (TRF) from the Voice Mail Automated Attendant route like Intercom calls. In either case, unanswered calls eventually route the initially called extension's mailbox.

Feature Operation

To send a call to a Terminal or Circular Hunting group:

The options available depend on the type of hunting set up.

- Transfer a trunk call to a hunt group member.
- Set up a DIL to a hunt group member.
- Place a ringing Intercom call to a hunt group member.
- Set up a hunt group member as a trunk's overflow destination.

To send a call to a UCD Hunting group:

- Transfer a call to the UCD master number.
- Set up a DIL to the UCD master number.
- Place an Intercom call to the UCD master number.
- Set up the UCD master number as a trunk's overflow destination.

To temporarily remove/reinstall your extension from your UCD group:

1. Press **ICM** and dial ***5**.

 Intercom dial tone stops.
 **ICM** and **SPK** on.

2. Dial **4** to return your extension to your UCD group.
OR
Dial **6** to remove your extension from your UCD group.
3. Press **SPK** to hang up when you are done.

Extension Locking

Description



DS1000/2000

|| Available.



When they leave the office, a keyset user can secure their phone to prevent unauthorized use.

Extension Locking allows a keyset extension user to secure their phone when they leave the office. The user may want to do this if their phone has Toll Restriction and Class of Service options enabled that could be easily abused. ***While locked, the restrictions set up in Class of Service 15 and Toll Level 7 are in force at the extension.*** When the user returns, they just unlock their extension to return it to normal operation.

You'll need to program the restrictions in Class of Service 15 and Toll Level 7 separately. See the *Class of Service* and *Toll Restriction* features for more.

Walking Class of Service and Extension Locking

Walking Class of Service overrides Extension Locking. For example:

- Extension 301 is permitted by their Class of Service and Toll Restriction to use Paging and place long distance calls.
- Extension 306 locks their extension. While locked, Class of Service 15 prevents Paging and Toll Level 7 prevents long distance calls. These features are no longer available at extension 306.
- The extension 301 user goes to extension 306 and implements Walking Class of Service.
- The extension 301 user can then use 306 to make long distance calls and Page (even though 306 was locked to prevent those features).

Conditions

None

Default Setting

- Extension Locking is disabled in an extension's Class of Service.
- There are no PIN codes entered by default. In addition:
 - An extension user can dial **ICM + ##6** to enter or change their PIN number.
 - The operator can dial **ICM + ##3** to erase a co-worker's PIN number and unlock their extension.

Programming Guide

Step-by-step guide for setting up Extension Locking

Step 1: Should extension have Extension Locking capability?

If yes

- In *Program 0101 - Extension Locking* (page 623), enable (Y) Extension Locking in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- In *Program 1801 - Access Level* (page 755), be sure the operator's extension has access level 4 or 5. If not, the operator will not be able to erase a co-worker's PIN number and unlock their extension. The access code for extension 300 is fixed at 5. Be sure to program this option for the other operators in a multiple-operator setup.
- In *Program 1807 - PIN Code* (page 773), assign PIN codes to extensions (4 digits, using 0-9, # and *).

If no

- In *Program 0101 - Extension Locking* (page 623), disable (N) Extension Locking in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Programming List

Program 0101 - Extension Locking (page 623)

Enter Y to enable or N to disable Extension Locking.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service (1-15) to extensions.

Program 1801 - Access Level (page 755)

Be sure the operator's extension has access level 4 or 5. If not, the operator will not be able to erase a co-worker's PIN number and unlock their extension. The access code for extension 300 is fixed at 5. Be sure to program this option for the other operators in a multiple-operator setup.

Program 1807 - PIN Code (page 773)

Use this option to assign a PIN code to an extension. PIN codes are 4 digits long, using 0-9, # and *. The PIN code is used for both Extension Locking and Walking Class of Service.

Extension Locking

Other Related Features

Walking Class of Service (page 606)

Extension Locking and Walking Class of Service share the same PIN code.

Feature Operation

Locking and Unlocking Your Extension

When using the procedures that follow to enter a PIN number or extension number:

- **CLEAR** erases your entire entry.
- **LND** backspaces over (erases) the last digit entered.

To lock your extension:

- Press **ICM** and dial **##5**.

*Your DND key winks on while your extension is locked. In addition, you hear pulsating Intercom dial tone when you press **ICM**.*

To unlock your extension:

1. Press **ICM**.

You hear pulsating Intercom dial tone.

2. Dial **##5**.

At a 22- or 34- Button Display telephone, you see:



```
UNLOCK EXTENSION
ENTER PIN CODE:
```

At a Super Display Telephone, you see:



```
UNLOCK EXTENSION
ENTER PIN CODE:
```

3. Enter your PIN number + **HOLD**.

Entering or Changing Your PIN Number

To enter your PIN number (if you don't have one assigned to your extension):

1. Press **ICM**.
2. Dial **##6**.

At a 22- or 34-Button Display Telephone, you see:



```
USER PIN PROGRAMMING
ENTER NEW PIN:
```

At a Super Display Telephone, you see:



```
USER PIN PROGRAMMING
ENTER NEW PIN:
```

3. Enter your new PIN number + **HOLD**.

At a 22- or 34-Button Display Telephone, you see:



```
USER PIN PROGRAMMING
REENTER NEW PIN:
```

At a Super Display Telephone, you see:



```
USER PIN PROGRAMMING
REENTER NEW PIN:
```

4. To confirm your entry, reenter the PIN number you just entered in step 4 above + **HOLD**.

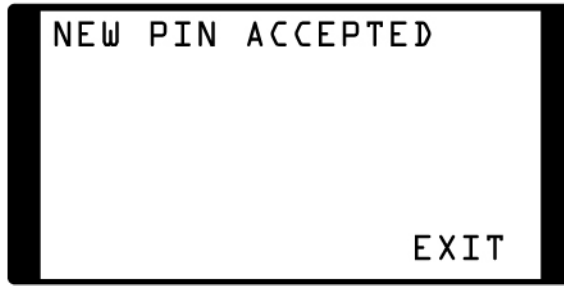
At a 22- or 34-Button Display Telephone, you see:



```
NEW PIN ACCEPTED
EXIT
```

Extension Locking

At a Super Display Telephone, you see:



5. Press **PREV**.

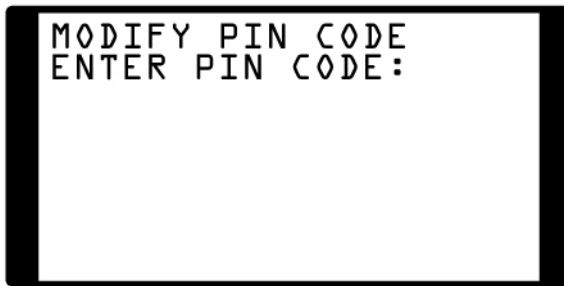
To change your PIN number (if you already have one assigned):

1. Press **ICM**.
2. Dial **##6**.

At a 22- or 34-Button Display Telephone, you see:



At a Super Display Telephone, you see:



3. Enter your current PIN number + **HOLD**.
At a 22- or 34-Button Display Telephone, you see:



At a Super Display Telephone, you see:



4. Enter your new PIN number + **HOLD**.

At a 22- or 34-Button Display Telephone, you see:



```
USER PIN PROGRAMMING
REENTER NEW PIN:
```

At a Super Display Telephone, you see:



```
USER PIN PROGRAMMING
REENTER NEW PIN:
```

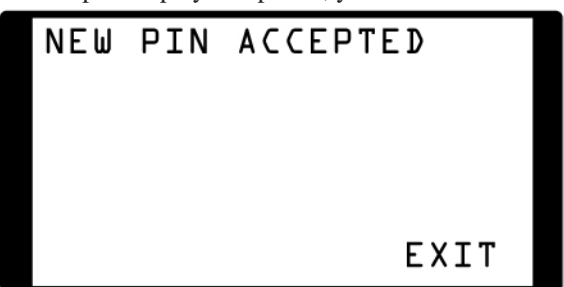
5. To confirm your entry, reenter the PIN number you just entered in step 4 above + **HOLD**.

At a 22- or 34-Button Display Telephone, you see:



```
NEW PIN ACCEPTED
EXIT
```

At a Super Display Telephone, you see:



```
NEW PIN ACCEPTED

EXIT
```

6. Press **PREV**.

Extension Locking

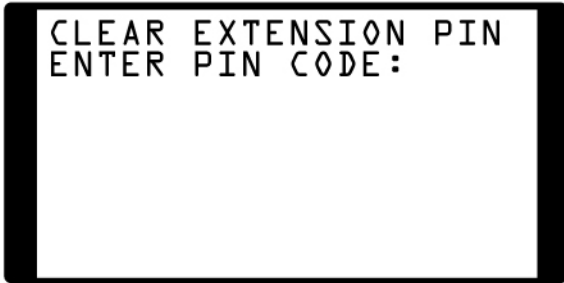
To unlock an extension (and clear their PIN number) from the attendant's phone:

1. Press **ICM**.
You must have a PIN number entered for your phone to be able to use this feature.
2. Dial **##3**.
At a 22- or 34-Button Display Telephone, you see:



CLEAR EXTENSION PIN
ENTER PIN CODE

At a Super Display Telephone, you see:



CLEAR EXTENSION PIN
ENTER PIN CODE:

3. Enter your current PIN number + **HOLD**.
At a 22- or 34-Button Display Telephone, you see:



CLEAR EXTENSION PIN
ENTER EXTENSION:

At a Super Display Telephone, you see:



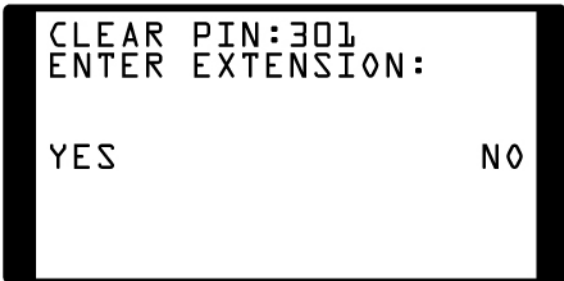
CLEAR EXTENSION PIN
ENTER EXTENSION:

4. Enter the number of the extension you want to unlock + **HOLD**.
At a 22- or 34-Button Display Telephone, you see:



CLEAR PIN: 301
YES NO

At a Super Display Telephone, you see:



CLEAR PIN: 301
ENTER EXTENSION:

YES NO

Extension Locking

5. Press **YES** to unlock the extension entered in step 4 above.
OR
Press **NO** to go back to step 3 without unlocking.
6. When you have unlocked all extensions desired, press **CONF** to exit.

Flash

Description



DS1000/2000

Available.



Extension users can access certain CO and PBX features by interrupting trunk loop current.

Flash allows an extension user to access certain CO and PBX features by interrupting trunk loop current. Flash lets an extension user take full advantage of whatever features the connected telco or PBX offers. You must set the Flash parameters for compatibility with the connected telco.

Flash for Single Line Extensions

The Class of Service option **Program 0101 - Flash for Single Line Sets** (page 619) allows you to enable or disable hookflash for analog single line extensions and 2-OPX Modules. If enabled (Y), a single line extension can hookflash normally and use any of the associated system features. If disabled (N), hookflash is prevented. This means the analog extension can not use any features that require a hookflash (such as Hold, Conference, or Transfer). This may be helpful for lobby phones and single line Ringdown Extensions that should not have access to system features.

When **Program 0101 - Flash for Single Line Sets** (page 619) is enabled (Y):

- A single line extension user cannot seize a trunk and hookflash without dialing. If they do, the system will disconnect the initial trunk call.
- If a single line extension user hookflashes to place their current trunk call on Hold and then hangs up, the trunk call will immediately recall the extension.

The option is ignored for Voice Mail ports (i.e., you cannot disable Flash in **0101-Flash for Single Line Sets** for ports marked as Voice Mail ports in **1802-Voice Mail Port**).

Conditions

None

Default Setting

Enabled

Programming Guide

Step-by-step guide for setting up Flash

Step 1: When an extension flashes a trunk, does the telco/PBX return new dial tone on the same trunk without dropping the line?

If yes

- In *Program 0402 - PBX/Centrex Flash* (page 648), do not change the setting of the Flash Response timer.

If no

- In *Program 0402 - PBX/Centrex Flash* (page 648), change the setting of the Flash Response timer for compatibility with the connected telco/PBX.

Step 2: Should a single line extension be able to hookflash?

If yes

- In *Program 0101 - Flash for Single Line Sets* (page 619), enable Y to enable hookflash for analog single line extensions and 2-OPX Modules.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Flash for Single Line Sets* (page 619), enable N to disable hookflash for analog single line extensions and 2-OPX Modules.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Programming List

Program 0101 - Flash for Single Line Sets (page 619)

Enable (Y) or disable (N) hookflash for analog single line extensions and 2-OPX Modules.

Program 0402 - PBX/Centrex Flash (page 648)

Set the Flash interval. When a user flashes a trunk, the system opens the trunk circuit for this interval. Be sure to set this interval for compatibility with the connected telco or PBX/Centrex.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Flash

Other Related Features

Call Timer (page 85)

Flash restarts the Call Timer.

PBX/Centrex Compatibility (page 426)

Flash allows an extension user to access certain telco or PBX features.


Toll Restriction (page 549)

When an extension user with Toll Restriction enabled flashes a trunk, the system enforces toll Restriction on any digits the user dials from the new dial tone. For example, if an extension user cannot dial 203 926 5400 before they flash, they cannot dial 203 926 5400 after they flash.

Feature Operation

To Flash the trunk you are on:

1. Press FLASH

 A brief interruption, followed by new CO/PBX dial tone.
 Line/loop key on (green).

At a single line telephone, hookflash and dial #3 to flash the trunk.

2. Dial the code for the desired CO/PBX feature.

Description



DS1000/2000 Available.



Change the digits users dial for co-workers and other features.

The system's Flexible Numbering Plan allows you to change the digits users dial to reach the attendant, other co-worker's and trunks. The following chart shows the areas of the system number plan you can change.

For this feature:	You can change the digits a user dials to:	These digits are normally:
Attendant Position	Reach the system operator(s)	0 or 01-04
Intercom	Call a co-worker over the Intercom	300-427 in DS2000 300-333 in DS1000
Direct Trunk Access	Directly access a trunk	101-164 in DS2000 101-106 in DS1000
Central Office Calls, Placing	Access a Trunk Group	90-98

Conditions

None

Default Setting

See the table above.

Programming Guide

Step-by-step guide for setting up Flexible Numbering Plan (Page 1 of 3)

Step 1: Do you want to change the digits users dial to reach the system operator(s)?

If yes

If no

- In *Program 0501 - Numbering Plan* (page 671), change the options for digit 0 and the new operator access digit. Review your new choice to be sure it does not affect other system operations.
- In *Program 0501 - Numbering Plan* (page 671), leave the options for digit 0 at their default setting.

Flexible Numbering Plan

Step-by-step guide for setting up Flexible Numbering Plan (Page 2 of 3)

Step 2: Do you want to change the digits users dial to reach coworkers over the Intercom?

If yes

- In *Program 0501 - Numbering Plan* (page 671), change the options for digit 3 and the new Intercom access digit. Review your new choice to be sure it does not affect other system operations.
- In *Program 0502 - Station Extension Assignments* (page 676), assign new extension numbers to stations.

If no

- In *Program 0501 - Numbering Plan* (page 671), leave the options for digit 3 at their default setting.

Step 3: Do you want to change the digits users dial to directly access a trunk?

If yes

- In *Program 0501 - Numbering Plan* (page 671), change the options for digit 4 and the new trunk access digit. Review your new choice to be sure it does not affect other system operations.
- In *Program 0503 - Trunk Extension Assignments* (page 677), assign new extension numbers to trunks.

If no

- In *Program 0501 - Numbering Plan* (page 671), leave the options for digit 4 at their default setting.

Step 4: Do you want to change the digits users dial to access a Trunk Group?

If yes

- In *Program 0501 - Numbering Plan* (page 671), change the options for digit 9 and the new Trunk Group access digit. Review your new choice to be sure it does not affect other system operations.

If no

- In *Program 0501 - Numbering Plan* (page 671), leave the options for digit 9 at their default setting.

Step 5: Do you want to view or change the extension numbers assigned to a station?

If yes

- In *Program 0502 - Station Extension Assignments* (page 676), view and change the extension numbers assigned to each station.

If no

- Skip this option.

Step-by-step guide for setting up Flexible Numbering Plan (Page 3 of 3)

Step 6: Do you want to view or change the extension numbers assigned to a trunk?

If yes

If no

- In *Program 0503 - Trunk Extension Assignments* (page 677), view and change the extension numbers assigned to each trunk.
- Skip this option.

Step 7: Do you want to swap the programming between two extensions or two trunks?

If yes

If no

- In *Program 0503 - Trunk Extension Assignments* (page 677), view and change the extension numbers assigned to each trunk.
- Skip this option.

Programming List

Program 0501 - Numbering Plan (page 671)

Customize the system's number plan by changing the digits users dial to reach an operator, co-workers (i.e., Intercom), Direct Trunk Access and Trunk Group Access.

Program 0502 - Station Extension Assignments (page 676)

View and change the extension numbers assigned to each station (including Voice Mail).

Program 0503 - Trunk Extension Assignments (page 677)

View and change the extension numbers assigned to each trunk.

Program 0505 - Extension Swap Utility (page 678)

Swap all the programming between two extensions or two trunks.

Flexible Numbering Plan

Other Related Features

Attendant Position (page 37)

Change the digits users dial to reach the system operators (normally 0 or 01-04).

Central Office Calls, Placing (page 119)

Change the digits users dial to access a Trunk Group for an outside call (normally 90-98).

Direct Trunk Access (page 191)

Change the digits users dial to directly access a trunk (normally 101-164 in DS2000 or 101-106 in DS1000).

Extension Hunting (page 239)

UCD Hunting group master numbers cannot be in the extension (300-427 in DS2000 or 300-333 in DS1000) or trunk (101-164 in DS2000 or 101-106 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.

Intercom (page 339)

Change the digits users dial to reach co-worker's over the Intercom (normally 300-427 in DS2000 or 300-333 in DS1000).

Feature Operation

None

Forced Trunk Disconnect

Description



DS1000/2000 Available.



Disconnect a co-worker's outside call in an emergency.

Forced Trunk Disconnect allows an extension user to disconnect (release) another extension's active trunk call. Forced Trunk Disconnect lets a user access a busy trunk in an emergency, when no other trunks are available. Maintenance technicians can also use Forced Trunk Disconnect to release a trunk on which there is no conversation. This can happen if a trunk does not properly disconnect when the outside party hangs up.

CAUTION

Forced Trunk Disconnect abruptly terminates the active call on the trunk. Only use this feature in an emergency and when no other trunks are available.

Conditions

None

Default Setting

Enabled for attendants (COS 1). Disabled for all other extensions (COS 2-15).

Programming Guide

Step-by-step guide for setting up Forced Trunk Disconnect

Step 1: Do you want to be able to disconnect another extension's active trunk call?

If yes

- In *Program 0101 - Forced Trunk Disconnect* (page 618), enter Y to enable Forced Trunk Disconnect for the extension.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extension.
- *Program 1803 - Extension Line Access Assignments* (page 763), make sure the extension has outgoing (option 2) or full (option 3) access to the trunks it should be able to disconnect.

If no

- In *Program 0101 - Forced Trunk Disconnect* (page 618), enter N to disable Forced Trunk Disconnect for the extension.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extension.

Forced Trunk Disconnect

Programming List

Program 0101 - Forced Trunk Disconnect (page 618)

In an extension's Class of Service, enter Y to enable the ability to use Forced Trunk Disconnect.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1803 - Extension Line Access Assignments (page 763)

An extension can only use Forced Trunk Disconnect on a trunk to which it has outgoing (option 2) or full (option 3) access.

Other Related Features

Attendant Position (page 37)

System attendants normally have Forced Trunk Disconnect capability.

Barge In (Intrusion) (page 56)

As an alternative to disconnecting the trunk, Barge In instead.

Direct Trunk Access (page 191)

An extension user with Direct Trunk Access can dial a code for the busy trunk before using Forced Trunk Disconnect.

Tandem Trunking / Unsupervised Conference (page 538)

An extension user can end an Unsupervised Conference by using Forced Trunk Disconnect on one of the trunks in the tandem call.

Toll Restriction (page 549)

Forced Trunk Disconnect does not bypass Toll Restriction.

Feature Operation

To disconnect a busy trunk:

1. Press line key for busy trunk.

OR

Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 101 for trunk 1).



Busy tone.



Line/loop key on (red).

Refer to Direct Trunk Access for the specifics.

2. Dial # to disconnect the line.

The line key goes out and you hear Intercom dial tone. To place a call on the trunk, press the line key and dial the number.

Description



DS1000/2000 || Available.



Easily answer a call ringing your Pickup Group, even if you don't know which extension is ringing.

Group Call Pickup allows an extension user to answer a call ringing an extension in their assigned Pickup Group. This permits co-workers in the same Pickup Group to easily answer each other's ringing calls. The user can intercept the ringing call by dialing a code or pressing a programmed Group Call Pickup key. The system has a maximum of eight Pickup Groups, with an unlimited number of extensions in each group. However, an extension can be a member of only one pickup group.

Group Call Pickup can answer the following types of calls:

- Ringing Intercom calls
- Transferred calls
- Direct Inward Lines
- Calls on trunks assigned to the Pickup Group

To simplify picking up calls, an extension can have Programmable Function Keys assigned as Group Call Pickup keys. There are three types of Group Call Pickup keys: immediate ring, no ring (lamp only) or delayed ring.

Conditions

None

Default Setting

No Pickup Groups assigned.

Programming Guide

Step-by-step guide for setting up Group Call Pickup (Page 1 of 2)

Step 1: Should extension be part of a Pickup Group?

If yes



- In *Program 1802 - Call Pickup Group Number* (page 758), enter the number (1-8) of the Pickup Group to which the extension should belong.

If no



- In *Program 1802 - Call Pickup Group Number* (page 758), assign the extension to Pickup Group 0.

Group Call Pickup

Step-by-step guide for setting up Group Call Pickup (Page 2 of 2)

Step 2: Should an incoming call on a trunk ring all extensions in a Pickup Group?

If yes

- In *Program 1003 - Call Pickup Group* (page 712), assign the trunk to a Pickup Group (1-8).
- In *Program 1803 - Extension Line Access Assignments* (page 763), make sure extensions in the Pickup Group have incoming (option 1) or full (option 3) access to the trunk.
- In *Program 1805 - Ring Assignments* (page 767), make sure to enable ringing for all extensions in the Pickup Group that should ring for the trunk.

If no

- In *Program 1003 - Call Pickup Group* (page 712), assign the trunk to Pickup Group 0.

Step 3: Should extension have one-touch Group Call Pickup?

If yes

- In *Program 1701 - Group Pickup Immediate Ring* (page 738), use code 09 to assign a key as an immediate ring Group Call Pickup key.
OR
- In *Program 1701 - Group Pickup No Ring* (page 738), use code 10 to assign a key as a no ring (lamp only) Group Call Pickup key.
OR
- In *Program 1701 - Group Pickup Delay Ring* (page 739), use code 11 to assign a key as a delayed ring Group Call Pickup key.

If no

- In *Program 1701 - Programmable Function Key Assignments* (page 737), do not assign a key as a Group Pickup key (codes 09, 10 or 11).

Step 4: Should DSS Console have one-touch Group Call Pickup?

If yes

- In *Program 1704 - Group Pickup Immediate Ring* (page 748), use code 09 to assign a key as an immediate ring Group Call Pickup key.
OR
- In *Program 1704 - Group Pickup No Ring* (page 748), use code 10 to assign a key as a no ring (lamp only) Group Call Pickup key.
OR
- In *Program 1704 - Group Pickup Delay Ring* (page 748), use code 11 to assign a key as a delayed ring Group Call Pickup key.

If no

- In *Program 1704 - DSS Console Key Assignment* (page 746), do not assign a key as a Group Pickup key (codes 09, 10 or 11).

Programming List

Program 1003 - Call Pickup Group (page 712)

Have an incoming call on the trunk ring all the extensions in the assigned pickup group.

Program 1701 - Programmable Function Key Assignments (page 737)

Assign a programmable key on an extension as a Group Call Pickup key (09 = Immediate Ring, 10 = No Ring, 11 = Delayed Ring). The options are 1-8 (Pickup Groups 1-8) or 0 (unassigned).

Program 1704 - DSS Console Key Assignment (page 746)

Assign a programmable key on an extension as a Group Call Pickup key (09 = Immediate Ring, 10 = No Ring, 11 = Delayed Ring). The options are 1-8 (Pickup Groups 1-8) or 0 (unassigned).

Program 1802 - Call Pickup Group Number (page 758)

Assign the Call Pickup Group (1-8, 0 = undefined) for each extension.

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 767)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features

Direct Inward Line (page 170)

DILs to an extension activate Group Call Pickup if the extension ringing is a member of a Pickup Group.

Direct Station Selection (DSS) Console (page 180)

DSS Consoles can have Group Call Pickup keys.

Directed Call Pickup (page 193)

Directed Call Pickup is another way to pick up calls ringing an extension.

Distinctive Ringing (page 200)

By using Key Ring Override, Distinctive Ringing allows an extension user to set up unique ringing for their Group Call Pickup keys.

Intercom (page 339)


Ringing Intercom calls activate Group Call Pickup if the extension ringing is a member of a Pickup Group.

Transfer (page 558)

A trunk call transferred to an extension in a Pickup Group activates Group Call Pickup.

Group Call Pickup

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Group Call Pickup	#RA	#RAP + Group Call Pickup Key repeatedly to select ringing mode + SPK to exit. Group Call Pickup Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.	1-5

To answer a call ringing a phone in your Pickup Group:

 Trunk ringing.
 (Optional) Group Pickup flashing (red).

1. Lift handset.
2. Press flashing Group Pickup key.

 Conversation with caller.
 N/A.

OR

Dial * #.

 Conversation with caller.
 N/A.

Description



DS1000/2000 Available.



Use Group Listen to talk to an important client or customer and have your co-workers listen in on the meeting.

Group Listen permits a keyset user to talk on the handset and have their caller's voice broadcast over the telephone speaker. This lets the keyset user's co-workers listen to the conversation. Group Listen turns off the keyset's Handsfree microphone so the caller does not hear the co-worker's voices during a Group Listen. When a keyset user sets up Group Listen, they hear their caller's voice over the telephone speaker as well as their handset.

Conditions

None

Default Setting

Enabled

Programming Guide

Step-by-step guide for setting up Group Listen

Step 1: Should extension be able to use Group Listen?

If yes

If no

- Extensions in the Headset mode cannot use Group Listen. In *Program 1807 - Headset* (page 771), enter N to disable the Headset mode.
- N/A

Programming List

Program 1807 - Headset (page 771)

Extensions in the Headset mode cannot use Group Listen. If you need Group Listen, be sure to enter N to disable the Headset mode.

Other Related Features

Single Line Telephones (page 479)

Group Listen is not available to single line telephones.

Group Listen

Feature Operation

To initiate Group Listen:

1. Place or answer call using the handset.
2. Press **SPK** twice (but do not hang up).



Use handset to speak to caller. Caller's voice will broadcast over the telephone speaker.



SPK flashes slowly (red).

You can talk to the caller through your handset. You and your co-workers hear your caller's voice over your phone's speaker.

Your handsfree microphone and handset receiver are off.

To talk handsfree after initiating Group Listen:

1. Press **SPK** twice.



N/A.



SPK on.

2. Hang up.



Handsfree conversation with caller.



SPK on.

To cancel Group Listen and return to your handset:

1. Do not hang up.
2. Press flashing **SPK**.



Handset conversation with caller.



SPK off.

You can talk to your caller over your handset. Your co-workers can no longer hear your caller's voice.

Description



DS1000/2000 || Available.



Use Group Ring to call a group of co-worker's simultaneously.

Group Ring allows you to arrange extensions into Ring Groups for answering calls. When a call comes into the Ring Group master number, all extensions in the group ring simultaneously. Any user in the Ring Group can answer the call just by lifting the handset. The ringing call can be:

- A Direct Inward Line to the Ring Group (i.e., terminated to the Ring Group master number)
- An trunk call transferred to the Ring Group master number
- An intercom call to the Ring Group master number

The system provides up to 8 Ring Groups (1-8). The Ring Group master number can be any valid extension number not already in use.

Overflow for Group Ring Calls

If unanswered, DILs to a Ring Group can route to a programmed overflow destination. The overflow destination can be an extension, another Ring Group, UCD Group or Voice Mail. You can set up separate DIL overflow destinations for the day mode and at night. If unanswered at the overflow destination, the call diverts to Key Ring. Note that a Ring Group DIL goes into the night mode when any extension with night mode capability presses their Night (System Mode System) key. See *Night Service / Night Ring* on page 389 for more.

If the Ring Group DIL does not have overflow programmed, the call will divert to Key Ring after the Trunk Revert interval.

Conditions

- Do not program any of the 1800 series options for Ring Group master extension numbers. The options you assign in *1800 - Extension Options* do not apply to Ring Group master extension numbers.
- System operators will not ring for Ring Group calls. Do not include the operator in a Ring Group.

Group Ring

Default Setting

Ring Group master numbers are predefined as shown in the following table. If required, you can reassign the Ring Group master numbers to any other *unused* extension number (100-899). See *Program 0502 - Station Extension Assignments* on page 676 for more.

0511 Ring Group Default Assignments	
Ring Group	Default Master Number
1	600
2	601
3	602
4	603
5	604
6	605
7	606
8	607

Programming Guide

Step-by-step guide for setting up Group Ring (Page 1 of 4)

Step 1: Should extensions be in a Ring Groups?

If yes

- In *Program 0511 - Ring Group Master Extension Numbers and Names* (page 681), assign names and extension numbers to Ring Groups (1-8).

Ring Group master numbers are normally 600-607.

- *Program 1802 - Ring Group Number* (page 758), assign extensions to Ring Groups.

If no

- In *Program 0511 - Ring Group Master Extension Numbers and Names* (page 681), do not assign names and extension numbers to Ring Groups.
- *Program 1802 - Ring Group Number* (page 758), do not assign extensions to Ring Groups.

Step 2: Check to be sure each trunk's circuit type matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP, 53 = ground start DTMF, 54 = ground start DP).

Step-by-step guide for setting up Group Ring (Page 2 of 4)

Step 3: Do you want to assign a DIL to the Ring Group in the day mode?.

If yes

- In *Program 1003 - Direct Termination (Day)* (page 712), assign the DIL to the Ring Group master number. (You can also assign a DIL to an extension, UCD Group master number, or Voice Mail master number.)
- In *Program 1701 - Night Key* (page 740), assign a Night (System Mode System) key to enable the Ring Group DIL to be put into the night mode.
OR
- In *Program 1704 - Night Key* (page 749), assign a Night (System Mode System) key to enable the Ring Group DIL to be put into the night mode.

If no

- In *Program 1003 - Direct Termination (Day)* (page 712), do not assign the DIL to a Ring Group master number.

Step 4: Do you want an unanswered Ring Group DIL to overflow during the day mode?

If yes

- In *Program 1003 - Activate Overflow During the Day* (page 712), enter Y.

If no

- In *Program 1003 - Activate Overflow During the Day* (page 712), enter N.

Step 5: Assign the Ring Group DIL day overflow destination.

- In *Program 1003 - Day Overflow Destination* (page 712), assign the DIL day mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 6: Do you want to assign a DIL to a Ring Group in the night mode?

If yes

- In *Program 1003 - Direct Termination (Day)* (page 712), assign the DIL to the Ring Group master number. (You can also assign a DIL to an extension, UCD Group master number, or Voice Mail master number.)

If no

- In *Program 1003 - Direct Termination (Night)* (page 713), do not assign the DIL to a Ring Group master number.

Group Ring

Step-by-step guide for setting up Group Ring (Page 3 of 4)

Step 7: Do you want an unanswered DIL to overflow during the night mode?

If yes

- In *Program 1003 - Activate Overflow at Night* (page 713), enter Y.

If no

- In *Program 1003 - Activate Overflow at Night* (page 713), enter N.

Step 8: Assign the DIL night overflow destination.

- In *Program 1003 - Night Overflow Destination* (page 713), assign the DIL night mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 9: Make sure the extension has a line key for the Ring Group DIL?

- In *Program 1701 - Line Key* (page 737), make sure the DIL has a line key assigned (code 03).
- This is the default setting in DS1000, since all keysets have line keys for trunks 1-6.

Step 10: Do you want to put the Ring Group DIL on a DSS Console key?

If yes

- In *Program 1704 - Line Key* (page 747), make sure the DIL has a DSS Console line key assigned (code 03).

If no

- In *Program 1704 - Line Key* (page 747), make sure the DIL does not have a DSS Console line key assigned (code 03).

Step 11: If the Ring Group DIL is unanswered, does call divert to its programmed overflow destination after the proper interval.

If yes

- In *Program 0401 - DIL No Answer* (page 643), leave the DIL No Answer time at its current setting.

If no

- In *Program 0401 - DIL No Answer* (page 643), change the DIL No Answer time to meet the site requirements.

Step 12: If DIL is unanswered at the overflow destination, does call divert to Key Ring after the proper interval.

If yes

- In *Program 0401 - Transfer Recall* (page 642), leave the Transfer Recall time at its current setting.

Step-by-step guide for setting up Group Ring (Page 4 of 4)

If no

- In *Program 0401 - Transfer Recall* (page 642), change the Transfer Recall time to meet the site requirements.

Step 13: If the DIL doesn't have overflow enabled and is unanswered, does the call divert to Key Ring after the proper interval.

If yes

- In *Program 0401 - Trunk Revert* (page 644), leave the Transfer Recall time at its current setting.

If no

- In *Program 0401 - Trunk Revert* (page 644), change the Transfer Recall time to meet the site requirements.

Programming List

Program 0401 - Transfer Recall (page 642)

This interval sets how long a call will ring the day or night overflow destination before diverting to key ring. It also sets how long a call transferred to a Ring Group will ring before recalling the extension that initially transferred it.

Program 0401 - DIL No Answer (page 643)

Set how long a DIL rings its destination before ringing its programmed overflow destination.

Program 0401 - Trunk Revert (page 644)

For DILs to a Ring Group that don't have overflow enabled, set how long the call rings the Ring Group before diverting to Key Ring.

Program 0511 - Ring Group Master Extension Numbers and Names (page 681)

Assign extension numbers and names to the Ring Group master extensions.

Program 1001 - Trunk Circuit Type (page 699)

Set the DIL trunk's circuit type for compatibility with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1003 - Direct Termination (Day) (page 712)

To have a DIL ring the Ring Group directly during the day mode, enter the Ring Group master number.

Program 1003 - Activate Overflow During the Day (page 712)

Enter Y to enable DIL overflow during the day mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Program 1003 - Day Overflow Destination (page 712)

Set the overflow destination for the Ring Group's DIL during the day. The overflow destination can be an extension, UCD Group master number, another Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Program 1003 - Direct Termination (Night) (page 713)

To have a DIL ring the Ring Group directly during the night mode, enter the Ring Group master number. You can optionally have the trunk ring a different destination at night, such as an extension, UCD Group master number, or Voice Mail master number.

Program 1003 - Activate Overflow at Night (page 713)

Enable Y to enable DIL overflow during the night mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Group Ring

Program 1003 - Night Overflow Destination (page 713)

Set the overflow destination for the Ring Group's DIL during the night mode calls. The destination can be an extension, UCD Group master number, another Ring Group master number, or Voice Mail master number.

Program 1701 - Line Key (page 737)

A Ring Group DIL should also appear on a line key (code 03).

Program 1701 - Night Key (page 740)

Assign a Night (System Mode System) key to enable the Ring Group DIL to be put into the night mode.

Program 1704 - Line Key (page 747)

A Ring Group DIL can optionally appear on a DSS Console line key (code 03).

Program 1704 - Night Key (page 749)

Assign a Night (System Mode System) key to enable the Ring Group DIL to be put into the night mode.

Program 1802 - Ring Group Number (page 758)

Assign extensions to Ring Groups (1-8, 0 = no assignment).

Other Related Features

Attendant Position (page 37)

System operators will not ring for Ring Group calls. Do not include the operator in a Ring Group.

Call Coverage Keys (page 59)

A keyset can have Call Coverage keys for Ring Group master numbers.

Call Forwarding (page 63)

Call Forwarding does not reroute Ring Group calls.

Call Waiting / Camp-On (page 88)

An extension user cannot Camp On to a busy Ring Group. When all extensions in the Ring Group are busy, the call continues to ring until an extension becomes free.

Caller ID (page 95)

- An extension's display will show Caller ID data for a trunk terminated to a Ring Group master number *as* the call is ringing.

Direct Inward Line (page 170)

A DIL can terminate to a Ring Group master number. When a call comes in on the trunk, all phones in the Ring Group ring simultaneously.

Directed Call Pickup (page 193)

Directed Call Pickup can intercept Ring Group calls.

Directory Dialing (page 195)

Intercom Directory dialing will show Ring Group names.

Extension Hunting (page 239)

Group Ring calls do not activate hunting.

Night Service / Night Ring (page 389)

The Night (System Mode System) key sets the day/night status of a DIL terminated to a Ring Group.

Transfer (page 558)

An extension user can Transfer a call to a Ring Group master number. If unanswered, the call will recall the extension from which it was transferred.

Feature Operation

To make an Intercom call to a Ring Group:

1. Lift handset and press **ICM**.

 || Intercom dial tone.
 || **ICM** on.

2. Dial Ring Group number (e.g., 350).

 || Intercom ringing.
 || **ICM** on.

3. Wait for co-worker to answer.



If all Ring Group members are busy, your call will continue to ring until a group member becomes free.

To Transfer your trunk call to a Ring Group:

1. Press **ICM**.

 || Intercom dial tone.
 || **ICM** on.

2. Dial Ring Group number (e.g., 350).

 || Intercom ringing.
 || **ICM** on and line key flashes (green).

3. To screen (announce) the Transfer:

- Wait for Ring Group member to answer before hanging up.

OR

To have the call go through unscreened (unannounced):

- Hang up.

OR

To return to call before a Ring Group member picks it up:

- Press flashing (green) line key.

You can Transfer a call to a Ring Group master number. If unanswered, the call will recall to you.

To answer a call that rings your Ring Group:

 || Ringing
 || N/A

1. If call doesn't appear on a line/loop key:

- Lift handset.

OR

If line appears on a line/loop key:

- Press flashing line/loop key.

Group Ring

To answer a call that ringing another group (of which you are not a member):

					Ringing
					N/A

1. Lift handset and press **ICM**.

					Intercom dial tone.
					ICM on.

2. Dial ** and the Ring Group number (e.g., 350).

					Conversation with caller.
					ICM on.

Handsfree and Handsfree Answerback

Description



DS1000/2000

Available.



- Talk over the phone Handsfree, using the built-in speaker and microphone.
- With Handsfree Answerback, answer an Intercom call by just speaking toward your phone.

Handsfree

Handsfree allows a keyset user to process calls using the speaker and microphone in the telephone (instead of the handset). Handsfree is a convenience for workers who don't have a free hand to pick up the handset. For example, a terminal operator could continue to enter data with both hands while talking on the phone.

Handsfree Answerback and Forced Intercom Ringing

Handsfree Answerback permits an extension user to respond to a voice-announced Intercom call by speaking toward the phone, without lifting the handset. Like Handsfree, this is a convenience for workers who don't have a free hand to pick up the handset. Incoming Intercom calls alert with two beeps if the extension has Handsfree Answerback — a single beep if it does not.

Forced Intercom Ringing causes an Intercom call to ring the destination extension. You can enable Forced Intercom Ringing system-wide (for all extensions), or a user can dial a code to have their Intercom call ring the destination.

Conditions

Since Handsfree switching is handled in each telephone, there is no limit to the number of simultaneous Handsfree calls system-wide.

Default Setting

Enabled

Handsfree and Handsfree Answerback

Programming Guide

Step-by-step guide for setting up Handsfree Answerback

Step 1: Should Intercom calls voice-announce system-wide?

If yes

- In *Program 0201 - Voice-Announced Intercom Calls* (page 628), enter Y to allow Intercom calls to voice-announce system-wide. Users can still dial 1 to have their calls ring.
- In *Program 1807 - Station Voice Announced Intercom Calls* (page 771), enter Y to enable voice-announced intercom calls for specific extensions. The User-Programmable Options # **IV** (#48) and # **IR** (#47) locally override this setting.

If no

- In *Program 0201 - Voice-Announced Intercom Calls* (page 628), enter N to have all Intercom calls ring system-wide. Users cannot dial 1 to have their calls voice-announce.

Step 2: Should user be able to respond to a voice-announced Intercom call without lifting the handset (i.e., by using Handsfree Answerback)?

If yes

- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 628), enter Y to enable Handsfree Answerback system-wide.
- In *Program 1802 - Handsfree Reply on Intercom Calls* (page 759), enter Y to enable Handsfree Answerback for specific extensions.

If no

- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 628), enter N to disable Handsfree answerback system-wide. Users must lift the handset to respond to voice-announced Intercom calls.

Programming List

Program 0201 - Handsfree Reply on Intercom Calls (page 628)

Enter Y to allow extension user to respond to voice-announced Intercom calls by just speaking toward the phone (i.e., by using Handsfree Answerback). When you enter N, the extension user must lift the handset to speak.

Program 0201 - Voice-Announced Intercom Calls (page 628)

Enter Y to enable voice-announced Intercom calls system-wide. If disabled, all Intercom calls ring (i.e., Forced Intercom Ringing is enabled).

Program 1802 - Handsfree Reply on Intercom Calls (page 759)

Enter Y to enable Handsfree reply (Handsfree Answerback) on a per-extension basis. Intercom calls initially ring when this option is disabled. This option requires that you have previously enabled *0201 - Handsfree Reply on Intercom Calls*.

Handsfree and Handsfree Answerback

Program 1807 - Station Voice Announced Intercom Calls (page 771)

Enter Y to enable voice-announced Intercom calls on a per-extension basis. This option requires that you have previously enabled *0201 - Voice-Announced Intercom Calls*. The User-Programmable Options # **IV** (#48) and #**IR** #47) locally override this setting.

Other Related Features

Automatic Handsfree (page 45)

Automatic Handsfree allows a keyset user to place or answer a call Handsfree by just pressing a key — without pressing **SPK** first.

Headset Compatibility (page 291)

Handsfree is not available to extensions in the headset mode. Handsfree Answerback still available — depending on system programming.

Intercom (page 339)

Handsfree Answerback allows a user to answer an Intercom call by just speaking toward the phone.

Microphone Mute (page 373)

Use Microphone Mute to temporarily turn off the Handsfree microphone.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

On- and Off-Premise Extensions do not have Handsfree and Handsfree Answerback capability.

Feature Operation

Handsfree

To activate Handsfree instead of lifting the handset:

1. Press **SPK**.



Handsfree conversation with caller.

SPK on.

To talk on a Handsfree call:

1. Speak toward phone.

To temporarily turn off the Handsfree microphone, see Microphone Mute on page 373.

To hang up a Handsfree call:

1. Press **SPK**.



Conversation stops.

SPK off.

To change a handset call into a Handsfree call:

1. Press **SPK**.



N/A.

SPK on.

2. Hang up the handset.

Handsfree and Handsfree Answerback

To change a Handsfree call into a handset call:

1. Lift handset.




Conversation with caller in handset.

SPK off.

Handsfree Answerback

Operation is automatic if enabled in system programming.

User Programmable Feature		
	#IV #48	Handsfree Answerback On (Forced Intercom Ringing Off)
	#IR #47	Forced Intercom Ringing On (Handsfree Answerback Off)

To turn voice-announced Intercom calls (Handsfree Answerback) on and off for your extension:

22-Button and 34-Button Display Telephone Operation

- Press **PGM + VANN + OFF** or **ON + EXIT**.

Super Display Telephone Operation

- Press **PROGRAM + VOICE ANNOUNCE + OFF** or **ON + EXIT**.

Description



DS1000/2000 Available.



Have the privacy of a handset call without having to hold the handset

A keyset user can utilize a customer-provided headset in place of the handset. Like using Hands-free, using the headset frees up the user's hands for other work. However, the headset provides privacy not available from Handsfree. An example of compatible headsets are GN Netcom Orator-G and Plantronics Mirage.

Headset Compatibility also provides the following features. (Note that while an extension is in the Headset mode, the system ignores all hookswitch depressions.)

- **Background Music**
If programmed and connected, Background Music will broadcast over the telephone speaker while the extension is in the Headset mode.
- **Central Office Calls, Answering**
An extension user in the Headset mode can press **Vol ▲** and **Vol ▼** while idle to control the volume of any call ringing their phone.
- **Handsfree and Handsfree Answerback**
An extension in the Headset mode can receive normal voice-announced Intercom calls, depending on the setting of **Program 1807 - Headset Voice-Announced Intercom Calls** (page 771). The extension user can respond to the voice-announced call by speaking toward the phone (just like non-headset extensions). To answer the voice-announced call in the headset, the user just presses SPK after hearing the voice-announcement.
- **Microphone Mute**
While on a headset call, the extension user can press **MIC** to mute (i.e., turn off) the headset microphone. While responding to an Intercom call using Handsfree Answerback, pressing MIC mutes the Handsfree microphone.
- **Off-Hook Signaling**
Trunk Calls
Depending on the setting of **Program 1802 - Off-Hook Signaling for CO Calls** (page 759), an extension in the headset mode can receive either Camp On beeps or Off-Hook Ringing for incoming trunk calls (just like non-headset extensions).
Intercom Calls
Depending on the setting of **Program 1802 - Off-Hook Signaling for Intercom Calls** (page 758), an extension in the headset mode can receive either Camp On beeps or Voice Over announcements from a co-worker (just like non-headset extensions).
Hotline Calls
Depending on the setting of **Program 1802 - Off-Hook Signaling for Hotline Partner** (page 759), an extension in the headset mode can receive either Camp On beeps or Voice Over announcements from their Hotline partner.
- **Paging**
Internal Paging announcements broadcast over the telephone speaker while the extension is in the Headset mode.

Headset Compatibility

- **Transfer**
Screened and unscreened transfers work just like non-headset extensions. For example, if a headset extension user presses SPK to answer a screened transfer, the call will connect to their headset when the transferring party hangs up.

Handsfree Transfers always connect to the headset extension's headset, not speakerphone.
- **Volume Control**
While on a headset call, the extension user can press **Vol ▲** and **Vol ▼** to adjust the receive volume in the headset.

Headset Key

A keyset user can have a key on their telephone or DSS Console assigned as a Headset key. The user presses the key to enable or disable the headset mode, as an alternative to using the **#HL** User Programmable Feature. The key lights while the extension is in the Headset mode, and is off while the Headset mode is disabled.

If an extension user is on a call, pressing the Headset key automatically switches the active call to the headset. Pressing the Headset key again switches the call back to Handsfree.

Off-Hook Signaling and Headsets

Outside Calls (transfers and DILs)

If the extension is set up to receive Camp-On tones for waiting (transferred) outside calls, the user will hear the Camp-On tones in their headset. They will also hear Camp-On tones in their headset for a waiting Direct Inward Line (DIL). The extension will not, however, receive Camp On tones for Key Ring calls ringing the phone while it is in the headset mode.

An extension in the headset mode will not hear Off-Hook Ringing.

Intercom Calls

If the extension is set up to receive Camp-On tones for waiting Intercom calls, the user will hear tones in their headset when a co-worker dials 2 to wait in line.

An extension in the headset mode will not receive a Voice Over.

Conditions

None

Default Setting

- Disabled.
- No Headset Keys assigned.

Programming Guide

Step-by-step guide for setting up Headset Compatibility

Step 1: Should extension be in the headset mode?

If yes

- In *Program 1807 - Headset* (page 771), enter Y to enable the headset mode.

If no

- In *Program 1807 - Headset* (page 771), enter N to disable the headset mode.

Step 2: Should incoming Intercom calls beep in the headset or ring over the telephone speaker?

Beep

- In *Program 1807 - Headset Voice-Announced Intercom Calls* (page 771), enter Y.

Ring

- In *Program 1807 - Headset Voice-Announced Intercom Calls* (page 771), enter N

Step 3: Should extension have a programmable key assigned as a Headset key?

Yes

- In *Program 1701 - Headset Key* (page 741), assign a programmable key as a headset key (code 28).

No

- In *Program 1701 - Headset Key* (page 741), do not assign a programmable key as a headset key (code 28).

Step 4: Should extension's DSS Console have a programmable key assigned as a Headset key?

Yes

- In *Program 1704 - Headset Key* (page 750), assign a programmable key as a headset key (code 28).

No

- In *Program 1704 - Headset Key* (page 750), do not assign a programmable key as a headset key (code 28).

Headset Compatibility

Programming List

Program 1701 - Headset Key (page 741)

For keysets, assign a programmable key as a Headset key (code 28).

Program 1704 - Headset Key (page 750)

For DSS Consoles, assign a key as a Headset key (code 28).

Program 1807 - Headset Voice-Announced Intercom Calls (page 771)

If enabled (Y), the user hears 2 beeps in the headset when they receive an incoming Intercom call. If disabled (N), the user hears ringing over the telephone speaker.

Program 1807 - Headset (page 771)

Enter Y to enable the Headset mode.

Other Related Features

Automatic Handsfree (page 45)

While in the headset mode, Automatic Handsfree simplifies answering trunk calls.

Background Music (page 53)

Background Music plays in the headset when the extension is in the headset mode.

Group Listen (page 277)

Group Listen is not available to extensions in the headset mode.

Handsfree and Handsfree Answerback (page 287)

Handsfree is not available to extensions in the headset mode. Handsfree Answerback is available — depending on system programming.

Off-Hook Signaling (page 394)

Turn to *Off-Hook Signaling and Headsets* on page 292 for more on how Off-Hook Signaling interacts with headsets.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

On- and Off-Premise Extensions do not have headset capability.

Paging (page 409)

While in the headset mode, the extension user can hear Paging announcements in the headset.


Single Line Telephones (page 479)

Headset Compatibility is not available to single line telephones.

Voice Over (page 600)

An extension user cannot Voice Over to a co-worker in the headset mode.

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Headset	#HS	#HS + Y to enable or N to disable + SPK to exit	3-5

To enable the headset mode:

1. Unplug the telephone handset but leave it in the handset cradle.
2. Plug in the headset.

When in the headset mode:

- Press a line key to place or answer a trunk call.
OR
- Press **ICM** to get Intercom dial tone.
OR
- If on a call, press **SPK** to hang up.

Hold

Description



DS1000/2000

Available.



Have a call wait on Hold, then pick it up to continue the conversation.

Hold lets an extension user put a call in a temporary waiting state. The caller on Hold hears silence or Music on Hold, not conversation in the extension user's work area. While the call waits on Hold, the extension user may process calls or use a system feature. Outside calls left on Hold too long recall the extension that placed them on Hold. If the recall is unanswered, the call diverts to Key Ring.

There are four types of Hold:

System (Regular) Hold

With System Hold, an outside call a user places on Hold flashes the line key (if programmed) at all other keysets. Any keyset user with the flashing line key can pick up the call.

Exclusive Hold

When a user places a call on Exclusive Hold, only that user can pick up the call from Hold. The trunk appears busy to all other keysets that have a key for the trunk. Exclusive Hold is important if the user doesn't want a co-worker picking up their call on Hold.

Automatic Hold

Automatic Hold allows a user to be on a trunk call, activate a feature and automatically place the call on Hold without first pressing the HOLD key. The system places a call on Hold automatically when the user presses CONF or ICM, a Call Coverage Key or a Hotline key.

Intercom Hold

A user can place an Intercom call on Hold. The Intercom call on Hold does not indicate at any other extension. There is no Hold Recall for Intercom calls.

Distinctive Flash Rate on Recall

System Hold and Exclusive Hold recall feature a distinctive flash rate for line keys (see the chart below). This allows the keyset extension user to easily differentiate new calls that are ringing from Held calls that are recalling.

Distinctive Flash Rate on Recall		
For this type of call:	You see this flash rate:	
	System Hold	Exclusive Hold
Call that you placed on Hold	Single Wink On (Green)	Double Wink On (Green)
Call that you initially placed on Hold <u>recalling</u> your phone	Double Wink On (Green)	Double Wink On (Green)
Call a co-worker placed on Hold at their extension	Single Wink On (Red)	None (On Red)
Call a co-worker initially placed on Hold <u>recalling</u> your phone	Double Wink On (Red)	Double Wink On (Red)

Enhanced Hold Recall Display

The Hold recall display is enhanced to identify:

- The type of call recalling the extension.
- The extension which initially placed the call on Hold.

Following are sample Hold recall displays. In the first example, the call was placed on Hold at extension 301 (which does not have a name). In the second example, the call was placed on Hold at extension 300 (which has the name *ATTENDANT*).

```
Hold Recall
STA 301
```

```
Hold Recall
300: ATTENDANT
```

The Hold recall displays occurs as the call is ringing the extension that initially placed it on Hold, and after the call diverts to Key Ring.

Conditions

None

Default Setting

System Hold, Exclusive Hold and Automatic Hold enabled.

Hold

Programming Guide

Step-by-step guide for setting up Hold

Step 1: Should extension be able to use Automatic Hold?

If yes



- In *Program 0101 - Automatic Hold* (page 619), enter Y to enable Automatic Hold.
- *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no



- In *Program 0101 - Automatic Hold* (page 619), enter N to disable Automatic Hold.
- *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 2: Does an unanswered call on System Hold recall the extension that placed it on Hold after the correct interval?

If yes



- In *Program 0403 - Hold Recall* (page 655), leave the Hold Recall interval at its current setting.

If no



- In *Program 0403 - Hold Recall* (page 655), change the Hold Recall interval to meet the site requirements.

Step 3: Does an unanswered call on Exclusive Hold recall the extension that placed it on Hold after the correct interval?

If yes



- In *Program 0403 - Exclusive Hold Recall* (page 655), leave the Exclusive Hold Recall interval at its current setting.

If no



- In *Program 0403 - Exclusive Hold Recall* (page 655), change the Exclusive Hold Recall interval to meet the site requirements.

Step 4: Does an unanswered Hold recall revert to Key Ring after the proper interval?

If yes



- In *Program 0401 - Trunk Revert* (page 644), leave the Trunk Revert interval at its current setting.

If no



- In *Program 0401 - Trunk Revert* (page 644), change the Trunk Revert interval to meet the site requirements.

Programming List

Program 0101 - Automatic Hold (page 619)

Enter Y to enable Automatic Hold at an extension.

Program 0401 - Trunk Revert (page 644)

This timer sets how long Hold Recall rings the extension that placed the call on hold before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line.

Program 0403 - Hold Recall (page 655)

Set how long a call stays on Hold before it recalls the extension that initially placed it on Hold.

Program 0403 - Exclusive Hold Recall (page 655)

Set how long a call stays on Exclusive Hold before it recalls the extension that initially placed it on Exclusive Hold.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Call Timer (page 85)

A user's Call Timer starts when they pick up a call from Hold. If they place the call on Hold and another user picks it up, the timer restarts for the new user.

Conference (page 142)

If an extension user places a Conference on Hold, no other participants can place the Conference on Hold, split it, or terminate it.

Directed Call Pickup (page 193)

Directed Call Pickup can pick up Hold recalls.

Key Ring (page 344)

Unanswered Hold Recalls revert to Key Ring if not picked up.

Music on Hold (page 381)

If installed, Music on Hold plays to callers on Hold.

Off-Hook Signaling (page 394)

An extension user can place their current call on Hold and answer the waiting call.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

A single line telephone user can only place an outside call on Exclusive Hold. System Hold is not available.

Transfer (page 558)

If an extension receiving a screened Transfer answers the screen and immediately hangs up (before the transferring extension), the call goes on Exclusive Hold at the transferring extension.

Feature Operation

To place a trunk call on System Hold:

1. Press **HOLD**.



N/A





The line key winks (on) while on Hold, flashes slowly while recalling. The line key is green for your calls - red for your co-workers.

2. Hang up.







Hold

To pick up a trunk call on System Hold:



1. Press flashing line key.
 || Conversation with caller.
 || Line key on (green).

To pick up a trunk call on system Hold at a co-worker's extension:



You must know the number of the trunk that is on Hold.

1. Lift handset and press **ICM**.
 || Intercom dial tone.
 || **ICM** and **SPK** on (red).
2. Dial *4.
 || Intercom dial tone stops.
 || **ICM** and **SPK** on (red).
3. Dial the number of the trunk that is on Hold (e.g., 01 for trunk 1).
 || Conversation with the outside caller that was on Hold.
 || Line key on.

To place a trunk call on Exclusive Hold:



1. Press **HOLD** twice.
 || N/A
 || For you, the line key winks (on - green) while on Hold, flashes slowly while recalling. For your co-worker's the line key is on (red).
2. Hang up.

To pick up a trunk call on Exclusive Hold:



1. Press flashing line key.
 || Conversation with caller.
 || Line key on (green).

To place an Intercom call on Hold:

You can place both voice-announced and ringing Intercom calls on Hold.

1. Press **HOLD**.
 || N/A
 || **ICM** goes out.
2. Hang up.

To pick up a call on Intercom Hold:

1. Lift handset.
2. If you don't hear Intercom dial tone, press **ICM**.
3. Press **HOLD**.
 || Conversation with caller.
 || **ICM** on.

Using Hold at a Single Line Extension

To place a call on System (Regular) Hold:

1. Hookflash.
This places a trunk call on Exclusive Hold.
2. (Optional) Hang up.

To retrieve from System (Regular) Hold:

1. From Intercom dial tone, dial *7.

To retrieve trunk on System (Regular) Hold at a co-worker's extension:

1. From Intercom dial tone, dial *4.
2. Dial the number of the trunk that is on Hold (e.g., 01 for trunk 1).

To place on Exclusive Hold:

1. Hookflash + Dial *7.
2. Hang up.
 - If the call is left on Exclusive Hold too long, it will recall to you.
 - If you hang up without first dialing *7, the call will recall immediately.
 - If you previously placed a call on Exclusive Hold or have a Camped-On call waiting, dialing *7 will answer the waiting call. See *Split Available* below for more.

To retrieve from Exclusive Hold:

1. Lift the handset and dial *7 (or hookflash).

Hotline

Description



DS1000/2000 || Available.



Hotline provides partner extensions with one-button calling and Transfer.

Hotline gives a keyset user with a programmed Hotline key one-button calling and Transfer to another extension (the Hotline partner). Hotline helps co-workers that work closely together. The Hotline partners can call or Transfer calls to each other just by pressing a single key.

In addition, the Hotline key shows the status of the partner's extension:

Hotline Busy Lamp Indications	
When the key is:	The covered extension is:
Off	Idle or not installed
On	Busy or ringing ¹
Flashing fast	In Do Not Disturb

¹ Ringing ICM and Group Ring calls light the Hotline key. DILs, Key Ring calls and transferred calls do not.

Conditions

- An extension's Hotline partner can be any other keyset (e.g., physical port). An extension cannot have a Hotline key for master numbers or virtual ports.
- A Hotline partner can also be a trunk (e.g., 101). However, this capability requires that Direct Trunk Access be enabled. See *Direct Trunk Access* on page 191 for more.

Default Setting

No Hotline keys programmed.

Programming Guide

Step-by-step guide for setting up Hotline (Page 1 of 2)

Step 1: Should extension have a Hotline partner?

If yes

- In *Program 1701 - Hotline Key* (page 738), enter code 05 + the covered extension (300-427 in DS2000 or 300-333 in DS1000) to assign a Hotline key.

Step-by-step guide for setting up Hotline (Page 2 of 2)

If no

- In *Program 1701 - Hotline Key* (page 738), do not enter code 05 to assign a key as a Hotline key.

Step 2: Should DSS Console also have a Hotline partners?

If yes

- In *Program 1704 - Hotline Key* (page 747), enter code 05 + the covered extension (300-427 in DS2000 or 300-333 in DS1000) to assign a Hotline key.

If no

- In *Program 1704 - Hotline Key* (page 747), do not enter code 05 to assign a key as a Hotline key.

Step 3: Should Hotline partner initiate Voice Over, Camp-On tones, or no Off-Hook Signaling when they press their Hotline key to call a busy extension?

Voice Over

- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), enter 3. Refer to *Voice Over* on page 600 for additional programming information.

Camp On

- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), enter 1. Refer to *Call Waiting / Camp-On* on page 88 for additional programming information.

No Signals

- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), enter 0.

Hotline

Programming List

Program 1701 - Hotline Key (page 738)

Assign a programmable key on an extension as a Hotline key (code 05). The option is your Hotline partner's extension number.

Program 1704 - Hotline Key (page 747)

Assign a programmable key on a DSS Console as a Hotline key (code 04). The option is your Hotline partner's extension number.

Program 1802 - Off-Hook Signaling for Hotline Partner (page 759)

- Enter 3 if Hotline partner should be able to initiate a Voice Over by pressing their Hotline key. Refer to *Voice Over* on page 600 for additional programming information.
- Enter 1 if Hotline partner should be able to initiate a Camp On by pressing their Hotline key. Refer to *Call Waiting / Camp-On* on page 88 for additional programming information.
- Enter 0 if Hotline partner should not send Off-Hook Signals.

Other Related Features

Call Coverage Keys (page 59)

Call Coverage Keys provide many of the features available to Hotline partners.

Direct Station Selection (DSS) Console (page 180)

DSS Consoles can also have Hotline keys.

Do Not Disturb (page 220)

An extension user can press their Hotline key twice to override their Hotline partner's DND

Intercom (page 339)

A user can press a Hotline Key as an alternative to dialing Intercom numbers.


Transfer (page 558)

An extension user can Transfer a call to their Hotline partner by pressing their Hotline key.

Voice Over (page 600)

An extension can Voice Over after calling a co-worker by pressing their Hotline key.


Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Hotline	#HL	#HL + Press flashing Hotline key + Enter extension for new Hotline partner + HOLD + Program another Hotline key or SPK to exit.	3-5



To place a call to your Hotline partner:

1. Press Hotline key.

 Two beeps.

 Hotline key on (green) and **ICM** on (red).

To Transfer your trunk call to your Hotline partner:

 || Conversation with caller.
 || (Optional) Line/loop key on.

1. Press Hotline key.

 || Two beeps.
 || Hotline key on (green). Line/loop key flashes.

2. Announce call and hang up.

OR

Hang up to have the call wait at your Hotline partner unannounced.

If the call is not picked up, it recalls to you after the Transfer Recall interval. See Transfer on page 558 for more.

To answer a call from your Hotline partner:

 || Two beeps.
 || **ICM** on (red).

1. Speak toward phone.

Interactive Soft Keys

Description



DS1000/2000

Directory Dialing soft key definitions changed in software versions 03.20.07 and higher.



Use advanced telephone features just by pressing a soft key, without remembering feature codes.

Interactive Soft Keys provide intuitive feature access. It is no longer necessary to remember feature codes to access the telephone's advanced features because the function of the soft keys change as the user process calls. For example, while on a trunk call a display keyset user can press the **PARK** soft key to Park their call in orbit.

For additional information on Interactive Soft Key operation, refer to *Feature Operation* below.

Conditions

When an extension's soft keys are enabled or disabled in programming, the user must take some action at the telephone (such as lifting and replacing the handset) before the change takes effect.

Default Setting

Soft keys enabled.

Programming Guide

Step-by-step guide for setting up Interactive Soft Keys

Step 1: Should extension have Interactive Soft Keys?

If yes

- In *Program 0101 - Soft Keys* (page 620), enter Y to enable soft keys.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- Take some action at the telephone (such as lifting and replacing the handset) so the change will take effect.

If no

- In *Program 0101 - Soft Keys* (page 620), enter N to enable soft keys.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- Take some action at the telephone (such as lifting and replacing the handset) so the change will take effect.

Programming List

Program 0101 - Soft Keys (page 620)

Enable (Y) or disable (Y) an extension's soft keys.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

None

Feature Operation

See the charts beginning on the following page.

Interactive Soft Keys

Keypad Soft Keys

Global Navigation Soft Keys You May See At Any Time	
Soft Key	Definition
EXIT	Press this Soft Key to exit your current set of options.
MORE	Press this Soft Key to display additional options for your call.
CNCL	Press to return your telephone to the idle mode.

While Your Telephone Is Idle		
Soft Key	Feature	Definition
Use Directory Dialing to select a call from a list of names		
DIR	Press to access Directory Dialing, Paging and Meet Me Conference	
EXT	Directory Dialing	VOL ▲ or VOL ▼ + DIAL key to select co-worker from a list of extension names.
PERS		VOL ▲ or VOL ▼ + DIAL key to select one of your Personal Speed Dial bins.
CMPY		VOL ▲ or VOL ▼ + DIAL key to select a System Speed Dial bin.
Prior to software version 03.20.07		
INT	Directory Dialing	
ICM Directory		VOL ▲ or VOL ▼ + DIAL key to select co-worker from a list of extension names.
EXT		
PERS		VOL ▲ or VOL ▼ + DIAL key to select one of your Personal Speed Dial bins.
CMPY		VOL ▲ or VOL ▼ + DIAL key to select a System Speed Dial bin.
PAGE	Paging	
Dial a page zone		Dial a zone (1-7) or press ALL for All Call.
MT11 or MT12	Meet Me Conference	Press key to set up a Meet Me Conference.

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
Set up Call Forwarding, Distinctive Ringing, Speed Dial, Volume Controls and Intercom voice-announcements		
PGM		Press to set up Call Forwarding, Programmable Function Key ringing, Speed Dial, Do Not Disturb, and Intercom voice-announcements.
CFWD	Call Forwarding	
IMM		Press to set up Immediate Call Forwarding.
Enter DSS or EXT		Dial co-worker's extension, 0 (operator) or press MW (Voice Mail) key + ALL to forward all calls or TRNK for outside calls only.
RNA		Press to set up Ring No Answer Call Forwarding.
Enter DSS or EXT		Dial co-worker's extension, 0 (operator) or press MW (Voice Mail) key + ALL to forward all calls or TRNK for outside calls only.
BNA		Press to set up Busy/No Answer Call Forwarding.
Enter DSS or EXT		Dial co-worker's extension, 0 (operator) or press MW (Voice Mail) key + ALL to forward all calls or TRNK for outside calls only.
OFFP		Press to set up Off Premise Call Forwarding.
BIN		Enter Speed Dial bin number + HOLD key + ALL to forward all calls or TRNK for outside calls only.
NUM		<ul style="list-style-type: none"> Follow Speed Dial Programming to enter number + ALL to forward all calls or TRNK for outside calls only. If you already have a numbers stored, press YES (to override the stored number) or NO (to leave the currently stored number unchanged).
VIEW		Press to view number stored + SPK key.
AME		Press to set up Personal Answering Machine Emulation (AME).
ALL		Press to have AME intercept all calls.
TRNK		Press to have AME intercept just outside calls.
MSG		Press to set up Selectable Display Messaging.
ENTER MESSAGE NUM:		Dial the message number (01-16) or VOL ▲ or VOL ▼ keys to select message + HOLD key + Dial any additional digits + HOLD key.
NONE	Press to cancel Call Forwarding.	
SPD	Speed Dial	Enter bin (200-299 for System, 701-720 for Personal) + HOLD key+ Dial line (e.g., 1), Line group (90-98) or ICM key + HOLD key + Number + HOLD key + Name + HOLD key + SPK key.

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
VANN	Intercom	
ON		Press to enable voice-announcements for incoming Intercom calls.
OFF		Press to have all incoming Intercom calls ring (i.e., disable voice-announce).
HFRP	Microphone Mute	
ON		Press to turn <u>on</u> your telephone's Handsfree microphone for incoming Intercom calls.
OFF		Press to turn <u>off</u> your telephone's Handsfree microphone for incoming Intercom calls.

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
RING	Distinctive Ringing	Press to set up Distinctive Ringing.
ASGN		Press to select the Extension Override option.
DAY		Press to select the ringing mode for day mode calls.
“A”		For the type of calls selected (day, night, or delay), press to select ring type A.
“B”		For the type of calls selected (day, night, or delay), press to select ring type B.
“C”		For the type of calls selected (day, night, or delay), press to select ring type C.
LINE		For the type of calls selected (day, night, or delay), press to select the system default ring type.
NGT		Press to select the ringing mode for night mode calls, then choose from “A”, “B”, “C” or LINE above.
DLY		Press to select the ringing mode for delay ring calls, then choose from “A”, “B”, “C” or LINE above.
CNFG		Press to select the Distinctive Ring Configuration option.
ICM		Press to change the sound of your Intercom ringing.
TONE		For the type of ring selected (Intercom, Ring Group, recall, “A”, “B”, or “C”), press to change the ringing pitch.
CDNC		For the type of ring selected (Intercom, Ring Group, recall, “A”, “B”, or “C”), press to change the ringing cadence.
CNCL		Press to return to the previous Distinctive Ringing screen.
SAVE		After selecting a new cadence and/or tone, press to save your entry.
RGRP		Press to change the sound of your Ring Group ringing.
RCL		Press to change the sound of your Hold, Park, and Transfer Recall ringing.
“A”		Press to change the sound of your type “A” ringing.
“B”		Press to change the sound of your type “B” ringing.
“C”		Press to change the sound of your type “C” ringing.
DFLT	Press to select one of the 3 default ringing setups (1-3) and cancel your custom settings.	
KEY	Press to select the Key Ring Override option.	

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
CCK	Distinctive Ringing	<ul style="list-style-type: none"> If the Key Ring Override option is enabled, press a lit Call Coverage key and then select the key's ring type (1="A", 2="B", 3="C", 0=default). Press the lit Call Coverage key repeatedly to select the key's ringing mode (day, night, delay, or lamp only).
PKUP		<ul style="list-style-type: none"> If the Key Ring Override option is enabled, press a lit Group Call Pickup key and then select the key's ring type (1="A", 2="B", 3="C", 0=default). Press the lit Group Call Pickup key repeatedly to select the key's ringing mode (day, night, delay, or lamp only).
LINE		<ul style="list-style-type: none"> If the Key Ring Override option is enabled, press a lit line key and then select the key's ring type (1="A", 2="B", 3="C", 0=default). Press the lit line key repeatedly to select the key's ringing mode (day, night, delay, or lamp only).
VOL	Volume Control	Press to access the Volume Control feature.
RING		Press to select the ringing volume control, then VOL ▲ or VOL ▼ keys to adjust the volume.
OFHK		Press to select the off-hook ringing volume control, then VOL ▲ or VOL ▼ key to adjust the volume.
PAGE		Press to select the Paging volume control, then VOL ▲ or VOL ▼ key to adjust the volume.
Call Your Mailbox		
VM00	Voice Mail	Press to call your Voice Mail mailbox. The numbers after VM show the number of new messages in your mailbox.
Use Caller ID Logging		
CL00	Caller ID Logging	Press to review your Caller ID log. The numbers after CL show the number of logged calls.
ALL		Press to review all your Caller ID logs.
UNAN		Press to review the records just for calls that rang your phone but were unanswered in the system.
DEL*	Caller ID Logging	Press to delete all Caller ID records logged at your phone.
YES		After you press DEL* , press to confirm the deletion.
NO		After you press DEL* , press to cancel the deletion.
EXIT		Press to exit Caller ID Logging and return to the idle display.

Interactive Soft Keys

Outside Calls		
Soft Key	Feature	Definition
After you get trunk dial tone for a new call (but before you dial the outside number)		
ALND	Last Number Redial	Automatically redial the last outside number you called.
DLSV	Save Number Dialed	Automatically redial the stored Save Number Dialed number.
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
ACCT	Account Code	Press to start and complete Account Code entry.
After you answer or place an outside call		
ALND	Last Number Redial	Automatically redial the last outside number you called.
PARK	Park	
SYS		Enter system orbit (0-9).
PERS		Enter co-worker's extension number.
TRF	Transfer	Enter co-worker's extension number. (Press MW key after extension number to send call to co-worker's mailbox.)
DIR		Use Directory Dialing to Transfer call to co-worker.
ICM Directory		VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
MBOX		Send call to co-worker's mailbox.
RING		Change your voice announcement to ringing.
RTRV		Retrieve call (instead of Transferring).
PKPG		Park the call at the extension selected and make a Page.
PAGE		Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press ALL for All Call.
MT11 or MT12		Press key to set up a Meet Me Conference.
RTRV		Retrieve the call you just transferred.

Interactive Soft Keys

Outside Calls		
Soft Key	Feature	Definition
CONF	Conference	
DIR		Use Directory Dialing to set up the Conference with a co-worker.
ICM Directory		VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
PAGE		Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press ALL for All Call.
MT11 or MT12		Press key to set up a Meet Me Conference.
RTRV		Retrieve the call you just transferred.
REC	Voice Mail	Record the active call in your Voice Mail mailbox (if allowed in your Class of Service).
SAVE	Save Number Dialed	Save the number you just dialed. Not used for incoming calls.
TIME	Call Timer (Manual)	Turns the Call Timer on and off. Turning the timer off resets it to 00:00:00.
ACCT	Account Code	Press to start and complete Account Code entry.
After you press ICM to Transfer your outside call, or CONF to set up a Conference		
DIR	Transfer	Use Directory Dialing to Transfer the call to your co-worker.
ICM Directory		VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
(After ICM)		
MBOX		Send call to co-worker's mailbox.
RING		Change your voice announcement to ringing.
RTRV		Retrieve call (instead of Transferring).
PKPG		Park the call at the extension selected and make a Page.
(After CONF)	Conference	
MSG		Leave message in co-worker's mailbox
RING		Change your voice announcement to ringing.
RLS		Hang up (disconnect) the call and return to Intercom dial tone.

Interactive Soft Keys

Outside Calls		
Soft Key	Feature	Definition
PAGE	Paging	Broadcast a zone or All Call Page.
Dial a page zone		Dial a zone (1-7) or press ALL for All Call.
MT11 or MT12		Press key to set up a Meet Me Conference.
RTRV		Retrieve the call.
When you press a busy line key		
CLBK	Trunk Queuing / Trunk Callback	Leave a Callback for the busy trunk.
BARG	Barge In	Barge In on the busy trunk (if allowed in your Class of Service).
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
DISC	Forced Trunk Disconnect	Disconnect the call on the trunk (if allowed in your Class of Service).

Intercom Calls		
Soft Key	Feature	Definition
After a co-worker answers your Intercom call		
MSG	Message Waiting Voice Mail	<ul style="list-style-type: none"> If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
RING (Voice-announced calls only)	Intercom	Change your voice announcement to ringing.
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
After you call a co-worker and hear busy tone		
MSG	Message Waiting Voice Mail	<ul style="list-style-type: none"> If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
CAMP	Call Waiting / Camp-On	Send Camp On tones to your busy co-worker. If you hang up, your Camp On converts to a Callback.
CLBK	Callback	Leave a Callback for busy co-worker.
BARG	Barge In	Barge In on busy co-worker (if allowed in your Class of Service).
MON	Monitor / Silent Monitor	Monitor your co-worker's call (if allowed in your Class of Service).
After you call a co-worker and hear busy/ring tone		

Interactive Soft Keys

Intercom Calls		
Soft Key	Feature	Definition
MSG	Message Waiting Voice Mail	<ul style="list-style-type: none"> • If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. • If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
VOVR	Voice Over	Initiate a Voice Over with your busy co-worker.
BARG	Barge In	Barge In on your busy co-worker (if allowed in your Class of Service).
MON	Monitor / Silent Monitor	Monitor your co-worker's call (if allowed in your Class of Service).
After you call a co-worker and hear Do Not Disturb tone		
MSG	Message Waiting Voice Mail	<ul style="list-style-type: none"> • If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. • If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
OVRD	Do Not Disturb	Override an extension's Do Not Disturb (if allowed in your Class of Service).
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
After you answer an Intercom call		
CONF	Conference	Set up a Conference with your caller.
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
After you place or answer a Door Box call		
OPEN	Door Box	Press to activate (open) the system relay associated with the Door Box door strike (if programmed and installed).
CLOSE		After pressing OPEN above, press CLOSE to deactivate (close) the system relay associated with the Door Box door strike (if programmed and installed).
RLS		Hang up (disconnect) the call and return to Intercom dial tone.

Super Display Soft Keys

Global Navigation Soft Keys You May See At Any Time		
Soft Key	Feature	Definition
EXIT		Press this Soft Key to exit your current set of options.
MORE		Press this Soft Key to display additional options for your call.
CANCEL		Press to return your telephone to the idle mode.

While Your Telephone Is Idle		
Soft Key	Feature	Definition
Use Directory Dialing to select a call from a list of names		
DIRECTORY		Press to access Directory Dialing
EXTENSION	Directory Dialing	VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
PERSONAL		VOL ▲ or VOL ▼ keys + DIAL key to select one of your Personal Speed Dial bins.
COMPANY		VOL ▲ or VOL ▼ keys + DIAL key to select a System Speed Dial bin.
Prior to software version 03.20.07		
INTERCOM	Directory Dialing	
ICM Directory		VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
PERSONAL		VOL ▲ or VOL ▼ keys + DIAL key to select one of your Personal Speed Dial bins.
COMPANY		VOL ▲ or VOL ▼ keys + DIAL key to select a System Speed Dial bin.
Set up Call Forwarding, Distinctive Ringing, Speed Dial, Volume Controls and Intercom voice-announcements		
PROGRAM		Press to set up Call Forwarding, Programmable Function Key ringing, Speed Dial, Do Not Disturb, and Intercom voice-announcements.
CALL FWRD	Call Forwarding	
IMMEDIATE		Press to set up Immediate Call Forwarding.
Enter DSS or EXT		Dial co-worker's extension, 0 (operator) or press MW (Voice Mail) key + ALL to forward all calls or TRUNK ONLY for outside calls only.
RING/NO ANS		Press to set up Ring No Answer Call Forwarding.

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
Enter DSS or EXT	Call Forwarding	Dial co-worker's extension, 0 (operator) or press MW (Voice Mail) key + ALL to forward all calls or TRUNK ONLY for outside calls only.
BUSY/NO ANS		Press to set up Busy/No Answer Call Forwarding.
Enter DSS or EXT		Dial co-worker's extension, 0 (operator) or press MW (Voice Mail) key + ALL to forward all calls or TRUNK ONLY for outside calls only.
OFF-PREMISE		Press to set up Off Premise Call Forwarding.
SPEED DIAL BIN		Enter Speed Dial bin number + HOLD key + ALL to forward all calls or TRUNK ONLY for outside calls only.
NUMBER		<ul style="list-style-type: none"> Follow Speed Dial Programming to enter number + ALL to forward all calls or TRUNK ONLY for outside calls only. If you already have a numbers stored, press YES (to override the stored number) or NO (to leave the currently stored number unchanged).
VIEW		Press to view number stored following NUMBER option above + SPK key.
ANS MACHINE		Press to set up Personal Answering Machine Emulation (AME).
ALL		Press to have AME intercept all calls.
TRUNK ONLY		Press to have AME intercept just outside calls.
MESSAGE		Press to set up Selectable Display Messaging.
ENTER MESSAGE NUM:		Dial the message number (01-16) or VOL ▲ or VOL ▼ keys to select message + HOLD key+ Dial any additional digits + HOLD key.
NONE		Press to cancel Call Forwarding.
SPEED DIAL		Speed Dial
VOICE ANNOUNCE	Intercom	
ON		Press to enable voice-announcements for incoming Intercom calls.
OFF		Press to have all incoming Intercom calls ring (i.e., disable voice-announce).
HF REPLY	Microphone Mute	
ON		Press to turn <u>on</u> your telephone's Handsfree microphone for incoming Intercom calls.
OFF		Press to turn <u>off</u> your telephone's Handsfree microphone for incoming Intercom calls.

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
RING	Press to set up ringing Distinctive Ringing.	
ASSIGN	Distinctive Ringing	Press to select the Extension Override option.
DAY RING		Press to select the ringing mode for day mode calls.
RING "A"		For the type of call selected (day, night or delay), press to select ring type A.

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
RING "B"	Distinctive Ringing	For the type of call selected (day, night or delay), press to select ring type B.
RING "C"		For the type of call selected (day, night or delay), press to select ring type C.
CO LINE		For the type of call selected (day, night, or delay), press to select the system default ring type.
NIGHT RING		Press to select the ringing mode for night mode calls, then choose from RING "A", RING "B", RING "C", or CO LINE above.
DELAY RING		Press to select the ringing mode for delay ring calls, then choose from RING "A", RING "B", RING "C", or CO LINE above.
CONFIG		Press to select the Distinctive Ring Configuration option.
INTERCOM		Press to change the sound of your Intercom ringing.
RING TONE		For the type of ring selected (Intercom, Ring Group, recall, "A", "B", or "C"), press to change the ringing pitch.
CADENCE		For the type of ring selected (Intercom, Ring Group, recall, "A", "B", or "C"), press to change the ringing cadence.
CANCEL		Press to return to the previous Distinctive Ringing screen.
SAVE		After selecting a new cadence and/or tone, press to save your entry.
RING GROUP		Press to change the sound of your Ring Group ringing.
RECALL		Press to change the sound of your Hold, Park, and Transfer Recall ringing.
RING "A"		Press to change the sound of your type "A" ringing.
RING "B"		Press to change the sound of your type "B" ringing.
RING "C"		Press to change the sound of your type "C" ringing.
DEFAULT		Press to select one of the 3 default ringing setups (1-3) and cancel your custom settings. Also provides access to the Administration (ADMIN) feature.
KEY		Press to select the Key Ring Override option.
CALL COVERAGE		<ul style="list-style-type: none"> If the Key Ring Override option is enabled, press a lit Call Coverage key and then select the key's ring type (1="A", 2="B", 3="C", 0=default). Press the lit Call Coverage key repeatedly to select the key's ringing mode (day, night, delay, or lamp only).
PICKUP		<ul style="list-style-type: none"> If the Key Ring Override option is enabled, press a lit Group Call Pickup key and then select the key's ring type (1="A", 2="B", 3="C", 0=default). Press the lit Group Call Pickup key repeatedly to select the key's ringing mode (day, night, delay, or lamp only).

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
LINE	Distinctive Ringing	<ul style="list-style-type: none"> If the Key Ring Override option is enabled, press a lit line key and then select the key's ring type (1="A", 2="B", 3="C", 0=default). Press the lit line key repeatedly to select the key's ringing mode (day, night, delay, or lamp only).
VOLUME	Volume Control	Press to access the Volume Control feature.
RING		Press to select the ringing volume control, then VOL ▲ or VOL ▼ keys to adjust the volume.
OFF-HK RING		Press to select the off-hook ringing volume control, then VOL ▲ or VOL ▼ keys to adjust the volume.
PAGE		Press to select the Paging volume control, then VOL ▲ or VOL ▼ keys to adjust the volume.
Call Your Mailbox		
V-MAIL 00	Voice Mail	Press to call your Voice Mail mailbox. The numbers after VM show the number of new messages in your mailbox.
Use Caller ID Logging		
CALLS 00	Caller ID Logging	Press to review your Caller ID log. The numbers after CL show the number of logged calls.
VIEW ALL		Press to review all your Caller ID logs.
VIEW UNANS		Press to review the records just for calls that rang your phone but were <i>unanswered</i> in the system.
VIEW ANS		Press to review the records just for calls that rang your phone that were <i>answered</i> in the system.
DELETE ALL		Press to delete all Caller ID records logged at your phone.
YES	Caller ID Logging	After you press DELETE ALL , press to confirm the deletion.
NO		After you press DELETE ALL , press to cancel the deletion.
EXIT		Press to exit Caller ID Logging and return to the idle display.
Page a Co-worker		
PAGE	Paging	Press to access Paging options.
ALL		Make an All Call Page.
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
ZONE 1 thru ZONE 7		Page into zone selected (1-7).
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
Press a single key for your Personal Speed Dial numbers		

Interactive Soft Keys

While Your Telephone Is Idle		
Soft Key	Feature	Definition
SP DIAL 1	Speed Dial	Provides one-touch access to Personal Speed Dial bins 701-710. After pressing SP DIAL 1 , the names for bins 701-710 display.
(Names for bins 701-710)		
SP DIAL 2		Provides one-touch access to Personal Speed Dial bins 711-720. After pressing SP DIAL 2 , the names for bins 711-720 display
(Names for bins 711-720)		

Outside Calls		
Soft Key	Feature	Definition
After you get trunk dial tone for a new call (but before you dial the outside number)		
AUTO REDIAL	Last Number Redial	Automatically redial the last outside number you called.
DIAL SAVE	Save Number Dialed	Automatically redial the stored Save Number Dialed number.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
ACCT CODE	Account Code	Press to start and complete Account Code entry.
After you answer or place an outside call		
AUTO REDIAL	Last Number Redial	Automatically redial the last outside number you called.
PARK	Park	
PERSONAL		Enter co-worker's extension number for Personal Park.
ORBIT 0-9		Select a system orbit (0-9).

Interactive Soft Keys

Outside Calls		
Soft Key	Feature	Definition
TRANSFER	Transfer	Enter co-worker's extension number. (Press MW key after extension number to send call to co-worker's mailbox.)
DIRECTORY		Use Directory Dialing to Transfer call to co-worker.
ICM Directory		VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
TRANSFER TO MAILBOX		Send call to co-worker's mailbox.
RING		Change your voice announcement to ringing.
RETRIEVE		Retrieve call (instead of Transferring).
PARK AND PAGE		Park the call at the extension selected and make a Page.
PAGE		Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press ALL for All Call.
MEET ME 11 or 12		Press either key to set up a Meet Me Conference.
RETRIEVE		Retrieve the call you just transferred.
CONFERENCE	Conference	
DIRECTORY		Use Directory Dialing to set up the Conference with a co-worker.
ICM Directory		VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
PAGE	Conference	Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press ALL for All Call.
MEET ME 11 or 12		Press key to set up a Meet Me Conference.
RETRIEVE		Retrieve the call you just transferred.
RECORD	Voice Mail	Record the active call in your Voice Mail mailbox (if allowed in your Class of Service).
SAVE	Save Number Dialed	Save the number you just dialed. Not used for incoming calls.
TIMER	Call Timer (Manual)	Turns the Call Timer on and off. Turning the timer off resets it to 00:00:00.
ACCT CODE	Account Code	Press to start and complete Account Code entry.

Interactive Soft Keys

Outside Calls		
Soft Key	Feature	Definition
After you press ICM to Transfer your outside call, or CONF to set up a Conference		
DIRECTORY	Transfer	Use Directory Dialing to Transfer the call to your co-worker.
ICM Directory		VOL ▲ or VOL ▼ keys + DIAL key to select co-worker from a list of extension names.
(After ICM)		
TRANSFER TO MAILBOX		Send call to co-worker's mailbox.
RING		Change your voice announcement to ringing.
RETRIEVE		Retrieve call (instead of Transferring).
PARK AND PAGE		Park the call at the extension selected and make a Page.
(After CONF)	Conference	
LEAVE MESSAGE		Leave message in co-worker's mailbox
RING		Change your voice announcement to ringing.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
PAGE	Paging	Broadcast a zone or All Call Page.
ALL		Make an All Call Page.
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
ZONE 1 thru ZONE 7		Page into zone selected (1-7).
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
RETRIEVE		Retrieve the call.
When you press a busy line key		
CALLBACK	Trunk Queuing / Trunk Callback	Leave a Callback for the busy trunk.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
BARGE IN	Barge In	Barge In on the busy trunk (if allowed in your Class of Service).
FORCED DISCONNECT	Forced Trunk Disconnect	Disconnect the call on the trunk (if allowed in your Class of Service).

Intercom Calls		
Soft Key	Feature	Definition
After a co-worker answers your Intercom call		
LEAVE MESSAGE	Message Waiting Voice Mail	<ul style="list-style-type: none"> If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
RING	Intercom	Change your voice announcement to ringing.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
After you call a co-worker and hear busy tone		
LEAVE MESSAGE	Message Waiting Voice Mail	<ul style="list-style-type: none"> If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. If your system has Voice Mail, press to leave a voice message in their mailbox.
CAMP ON	Call Waiting / Camp-On	Send Camp On tones to your busy co-worker. If you hang up, your Camp On converts to a Callback.
CALLBACK	Callback	Leave a Callback for busy co-worker.
BARGE IN	Barge In	Barge In on busy co-worker (if allowed in your Class of Service).
SILENT MONITOR	Monitor / Silent Monitor	Monitor your co-worker's call (if allowed in your Class of Service).
After you call a co-worker and hear busy/ring tone		
LEAVE MESSAGE	Message Waiting Voice Mail	<ul style="list-style-type: none"> If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
VOICE OVER	Voice Over	Initiate a Voice Over with your busy co-worker.
BARGE IN	Barge In	Barge In on your busy co-worker (if allowed in your Class of Service).
SILENT MONITOR	Monitor / Silent Monitor	Monitor your co-worker's call (if allowed in your Class of Service).
After you call a co-worker and hear Do Not Disturb tone		
LEAVE MESSAGE	Message Waiting Voice Mail	<ul style="list-style-type: none"> If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
DND OVERRIDE	Do Not Disturb	Override an extension's Do Not Disturb (if allowed in your Class of Service).
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.

Interactive Soft Keys

Intercom Calls		
Soft Key	Feature	Definition
After you answer an Intercom call		
CONFERENCE	Conference	Set up a Conference with your caller.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
After you place or answer a Door Box call		
OPEN DOOR	Door Box	Press to activate (open) the system relay associated with the Door Box door strike (if programmed and installed).
CLOSE DOOR		After pressing OPEN DOOR above, press CLOSE DOOR to deactivate (close) the system relay associated with the Door Box door strike (if programmed and installed).
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.

Interactive Soft Keys

Soft Key Index

Following is an alphabetical index of your telephone's soft keys.

Soft Key	Feature	Phone Type	Definition
"A"	Distinctive Ringing	Keyset	Press to select ring type A.
ACCT	Account Code	Keyset	Press to start and complete Account Code entry.
ACCT CODE		Super Display	
ALL	Call Forwarding	Keyset	Press to have Call Forwarding intercept all calls.
		Super Display	
ALL	Caller ID Logging	Keyset	Press to review all your Caller ID logs.
ALL	Page	Keyset	Make an All Call Page.
		Super Display	
ALND	Last Number Redial	Keyset	Automatically redial the last outside number you called.
AME	Call Forwarding	Keyset	Press to set up Personal Answering Machine Emulation (AME).
ANS MACHINE		Super Display	
ASGN	Distinctive Ringing	Keyset	Press to select the Extension Override option.
ASSIGN		Super Display	
AUTO REDIAL	Last Number Redial	Super Display	Automatically redial the last outside number you called.
"B"	Distinctive Ringing	Keyset	Press to select ring type B.
BARG	Barge In	Keyset	Barge In on a busy trunk.
BARGE IN		Super Display	
BIN	Call Forwarding	Keyset	Enter the Speed Dial bin number that is the Call Forwarding Off Premise destination.
BNA	Call Forwarding	Keyset	Press to set up Busy /No Answer Call Forwarding.
BUSY/NO ANS		Super Display	
"C"	Distinctive Ringing	Keyset	Press to select ring type C.
CAMP	Call Waiting / Camp On	Keyset	Send Camp-On tones to a busy co-worker.
CAMP ON		Super Display	
CCK	Distinctive Ringing	Keyset	Press lit Call Coverage key to select key's ring type and ringing mode.
CALL COVERAGE		Super Display	
CDNC	Distinctive Ringing	Keyset	Press to change the ringing cadence.
CADENCE		Super Display	

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
CFWD	Call Forwarding	Keyset	Access Call Forwarding options.
CALL FWD		Super Display	
CL00	Caller ID Logging	Keyset	Press to review your Caller ID log.
		Super Display	
CLBK	Callback Trunk Queuing and Trunk Callback	Keyset	Leave Callback for a busy trunk or co-worker.
CALLBACK		Super Display	
CLOSE	Door Box	Keyset	Press to Deactivate (close) the system relay associated with the Door Box door strike (if programmed and installed).
		Super Display	
CMPY	Directory Dialing	Keyset	Access your company's System Speed Dial bins.
COMPANY		Super Display	
CNCL	N/A	Keyset	Return to idle.
CANCEL		Super Display	
CNCL	Distinctive Ringing	Keyset	Press to return to the previous Distinctive Ringing screen.
CANCEL		Super Display	
CNFG		Keyset	Press to select the Distinctive Ring Configuration option.
CONFIG		Super Display	
CO LINE		Super Display	Press to select the system default ring type.
CONF		Conference	Keyset
CONFERENCE	Super Display		
DAY	Distinctive Ringing	Keyset	Press to select the ringing mode for day mode calls.
DAY RING		Super Display	
DEL*	Caller ID Logging	Keyset	Press to delete all Caller ID records logged at your phone.
DELETE ALL		Super Display	
DFLT	Distinctive Ringing	Keyset	Press to select one of the 3 default ringing setups (1-3) and cancel your custom settings.
DEFAULT		Super Display	
DIAL LAST NUMBER	Last Number Redial	Super Display	Automatically redial the last outside number you called.
DIR	Conference Directory Dialing Transfer	Keyset	Access Directory Dialing, Paging and Meet Me Conference.
DIRECTORY		Super Display	
DISC	Forced Trunk Disconnect	Keyset	Disconnect the call on the trunk.

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
DLSV	Save Number Dialed	Keyset	Redial the number saved by Save Number Dial.
DIAL SAVE		Super Display	
DLY	Distinctive Ringing	Keyset	Press to select the ringing mode for delay ring calls.
DELAY RING		Super Display	
DND	Do Not Disturb	Keyset	Enable or disable Do Not Disturb.
		Super Display	
DND OVERRIDE		Super Display	Override an extension's Do Not Disturb.
ENTER MESSAGE NUM:	Call Forwarding	Keyset	Enter (or scroll to) the message number when setting up Selectable Display Messaging.
		Super Display	
Enter DSS or EXT		Keyset	Enter the Call Forwarding destination (extension, operator, or press MW key for Voice Mail).
	Super Display		
EXIT	N/A	Keyset	Back up to the previous set of options.
		Super Display	
EXIT	Caller ID Logging	Keyset	Press to exit Caller ID Logging and return to the idle display.
		Super Display	
EXT	Directory Dialing	Keyset	Access Intercom Directory Dialing.
EXTENSION		Super display	
EXT	Directory Dialing	Keyset	In software versions prior to 03.20.07, access Personal and System Speed Dial bins.
EXT	Placing Outside Calls	Keyset	Access Placing Outside Call options.
		Super Display	
FORCED DISCONNECT	Forced Trunk Disconnect	Super Display	Disconnect the call on the trunk.
HFRP	Microphone Mute	Keyset	Press to mute or unmute the microphone.
HF REPLY		Super Display	
GRP	Placing Outside Calls	Keyset	Select trunk group (0-8) for outside call.
GROUP		Super Display	
ICM Directory	Conference Directory Dialing Transfer	Keyset	Select a co-worker from a list of names.
		Super Display	
ICM	Distinctive Ringing	Keyset	Press to change the sound of your Intercom ringing.
INTERCOM		Super Display	

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
IMM	Call Forwarding	Keyset	Press to set up Immediate Call Forwarding.
IMMEDIATE		Super Display	
INT	Directory Dialing	Keyset	In software versions prior to 03.20.07, access Intercom Directory Dialing.
INTERCOM		Super Display	
KEY	Distinctive Ringing	Keyset	Press to select the Key Ring Override option.
		Super Display	
LEAVE MESSAGE	Message Waiting Voice Mail	Super Display	Leave Message Waiting or message in Voice Mail mailbox.
LINE	Distinctive Ringing	Keyset	Press to select the system default ring type.
LINE		Keyset	Press lit line key to select key's ring type and ringing mode.
		Super Display	
LINE	Placing Outside Calls	Keyset	Select line (e.g., 01) for outside call.
		Super Display	
MBOX	Transfer	Keyset	Send a call to your co-worker's mailbox.
MON	Monitor / Silent Monitor	Keyset	Monitor your co-worker's call.
MORE	N/A	Keyset	Display additional options.
		Super Display	
MSG	Message Waiting Voice Mail	Keyset	Leave Message Waiting or message in Voice Mail mailbox.
MSG	Call Forwarding	Keyset	Press to set up Selectable Display Messaging.
MESSAGE		Super Display	
MT11	Conference Meet Me Conference Transfer	Keyset	Set up a Meet Me Conference on circuit 11.
MEET ME 11		Super Display	
MT12		Keyset	Set up a Meet Me Conference on circuit 12.
MEET ME 12		Super Display	
NGT		Distinctive Ringing	Keyset
NIGHT RING	Super Display		
NO	Caller ID Logging	Keyset	After you press DEL* or DELETE ALL , press to cancel the deletion.
		Super Display	
NONE	Call Forwarding	Keyset	Press to cancel Call Forwarding.
		Super Display	

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
NUM	Call Forwarding	Keyset	Follow Speed Dial Programming to enter the Off Premise Call Forwarding destination number.
NUMBER		Super Display	
OFF	Intercom	Keyset	When programming Voice Announce, press to have all incoming Intercom calls ring.
		Super Display	
OFF	Microphone Mute	Keyset	When programming Handsfree Reply, press to turn off your telephone's Handsfree microphone for incoming Intercom calls.
		Super Display	
OFFP	Call Forwarding	Keyset	Press to set up Off Premise Call Forwarding.
OFF-PREMISE		Super Display	
OFHK	Volume Control	Keyset	Press to select the off-hook ringing volume control.
OFF-HK RING		Super Display	
ON	Intercom	Keyset	When programming Voice Announce, press to have all incoming Intercom calls voice announce.
		Super Display	
ON	Microphone Mute	Keyset	When programming Handsfree Reply, press to turn on your telephone's Handsfree microphone for incoming Intercom calls.
		Super Display	
OPEN	Door Box	Keyset	Press to activate (open) the system relay associated with the Door Box door strike (if programmed and installed).
		Super Display	
ORBIT	Park	Super Display	Select a System Park Orbit (0-9).
OVRD	Do Not Disturb	Keyset	Override an extension's Do Not Disturb.
PAGE	Conference Paging Transfer	Keyset	Select Paging options.
		Super Display	
PAGE	Volume Control	Keyset	Press to select the Paging volume control.
		Super Display	
PARK	Park	Keyset	Access your Park options.
		Super Display	
PERS	Directory Dialing	Keyset	Access your Personal Speed Dial bins.
PERSONAL		Super Display	
PERS	Park	Keyset	Park a call at a co-worker's extension.
PERSONAL		Super Display	
PGM	Various	Keyset	Set up Call Forwarding, Programmable Function Key ringing, Speed Dial, Do Not Disturb, and Intercom voice-announcements.
PROGRAM		Super Display	

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
PKPG	Park	Keyset	Park call at a co-worker's extension and do an All Call Page.
PARK AND PAGE		Super Display	
PKUP	Distinctive Ringing	Keyset	Press lit Group Call Pickup key to select key's ring type and ringing mode.
PICKUP		Super Display	
RCL	Distinctive Ringing	Keyset	Press to change the sound of your Hold, Park, and Transfer Recall ringing.
RECALL		Super Display	
REC	Voice Mail	Keyset	Record the active call in your Voice Mail mailbox.
RECORD		Super Display	
RGRP	Distinctive Ringing	Keyset	Press to change the sound of your Ring Group ringing.
RING GROUP		Super Display	
RING	Various	Keyset	When programming key ringing, set up Call Coverage, Group Call Pickup and line keys.
		Super Display	
RING	Transfer	Keyset	Change your voice announcement to ringing.
RING	Volume Control	Keyset	Press to select the ringing volume control.
		Super Display	
RING "A"	Distinctive Ringing	Super Display	Press to select ring type A.
RING "B"			Press to select ring type B.
RING "C"			Press to select ring type C.
RING TONE		Super Display	Press to change the ringing pitch.
RLS	Various	Keyset	Hang up (disconnect) the call and return to Intercom dial tone.
RELEASE		Super Display	
RNA	Call Forwarding	Keyset	Press to set up Ring No Answer Call Forwarding.
RING/NO ANS		Super Display	
RTE	Placing Outside Calls	Keyset	Selects your "dial 9" trunk route.
ROUTE 9		Super Display	
RTRV	Conference Transfer	Keyset	Retrieve call (instead of transferring it).
RETRIEVE		Super Display	
SAVE	Distinctive Ringing	Keyset	After selecting a new cadence and/or tone, press to save your entry.
		Super Display	

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
SAVE	Save Number Dialed	Keypad	Save the number you just dialed.
		Super Display	
SILENT MONITOR	Monitor / Silent Monitor	Super Display	Monitor your co-worker's call.
SP DIAL 1	Speed Dial	Super Display	Select keys for Personal Speed Dial bins 701-710. After pressing SP DIAL 1 , the names for bins 701-710 display.
SP DIAL 2		Super Display	Select keys for Personal Speed Dial bins 711-720. After pressing SP DIAL 2 , the names for bins 711-720 display.
SPD		Keypad	Press then enter your Speed Dial data (bin, etc.).
SPEED DIAL		Super Display	
SPEED DIAL BIN	Call Forwarding	Super Display	Enter the Speed Dial bin number that is the Call Forwarding Off Premise destination.
SYS	Park	Keypad	Select a system Park orbit (0-9).
TIME	Call Timer (Manual)	Keypad	Start and stop the Call Timer.
TIMER		Super Display	
TONE	Distinctive Ringing	Keypad	Press to change the ringing pitch.
TRF	Transfer	Keypad	Transfer a call to a co-worker.
TRANSFER		Super Display	
TRANSFER TO MAILBOX		Super Display	Send call to co-worker's mailbox.
TRK	Call Forwarding	Keypad	Press to have Call Forwarding intercept just outside calls.
TRUNK ONLY		Super Display	
UNAN	Caller ID Logging	Keypad	Press to review the records just for calls that rang your phone but were unanswered in the system.
VANN	Intercom	Keypad	Access the Intercom voice-announce options.
VOICE ANNOUNCE		Keypad	
VIEW	Call Forwarding	Keypad	Press to view the stored Off Premise Call Forwarding number.
		Super Display	
VIEW ALL	Caller ID Logging	Super Display	Press to review all your Caller ID logs.
VIEW ANS			Press to review the records just for calls that rang your phone.
VIEW UNANS			Press to review the records just for calls that rang your phone but were unanswered in the system.

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
VM00	Voice Mail	Keyset	Call your Voice Mail mailbox. The numbers after vm show the number of new messages in your mailbox.
V-MAIL 00		Super Display	
VOL	Volume Control	Keyset	Press to access the Volume Control feature.
VOLUME		Super Display	
VOVR	Voice Over	Keyset	Initiate a Voice Over.
VOICE OVER		Super Display	
YES	Caller ID Logging	Keyset	After you press DEL* or DELETE ALL , press to confirm the deletion.
		Super Display	
ZONE 1-7	Paging	Super Display	Page into zone selected (1-7).

Call States

Following is a list of the available soft keys based on the telephone's call state.

Call States		
State	Phone Type	Keys
Idle		
	Keyset	DIR PGM VM00 CL00EXT
	Super Display	DIRECTORY PROGRAM V-MAIL 00 CALLS 00EXTERNAL PAGE SP DIAL 1 SP DIAL 2
Intercom Dial Tone		
From Idle (after pressing ICM)	Keyset	DIR PAGE PKUP
	Super Display	DIRECTORY PAGE PICKUP
From trunk talk state		
After pressing ICM	Keyset	DIR PAGE RTRV
	Super Display	DIRECTORY PAGE RETRIEVE
After pressing CONF	Keyset	DIR PAGE RTRV PKUP (from Conference call only)
	Super Display	DIRECTORY PAGE RETRIEVE PICKUP (from Conference call only)
From Intercom talk state		
After pressing ICM	Keyset	DIR PAGE PKUP
	Super Display	DIRECTORY PAGE PICKUP
After pressing CONF	Keyset	DIR PAGE RTRV
	Super Display	DIRECTORY PAGE RETRIEVE

Interactive Soft Keys

Call States		
State	Phone Type	Keys
After calling an extension		
From idle		
If called extension answers using Handsfree Answerback	Keyset	MSG RING RLS
	Super Display	LEAVE MESSAGE RING RELEASE
If called extension is ringing	Keyset	MSG RLS
	Super Display	LEAVE MESSAGE RELEASE
If called extension is busy	Keyset	MSG CAMP CLBK MORE BARG MON MORE
	Super Display	LEAVE MESSAGE CAMP ON CALLBACK BARGE IN SILENT MONITOR
If called extension is in Do Not Disturb	Keyset	MSG OVRD RLS
	Super Display	LEAVE MESSAGE DND OVERRIDE RELEASE
If you hear busy/ring	Keyset	MSG VOVR BARG MON
	Super Display	LEAVE MESSAGE VOICE OVER BARGE IN SILENT MONITOR
After using ICM key to Transfer (but before destination answers)		
If called extension answers announcement using Handsfree Answerback	Keyset	MBOX RING RTRV PKPG
	Super Display	TRANSFER TO MAILBOX RING RETRIEVE PARK AND PAGE
If called extension is ringing	Keyset	MBOX RTRV PKPG
	Super Display	TRANSFER TO MAILBOX RETRIEVE PARK AND PAGE
If called extension is busy	Keyset	MBOX RTRV PKPG
	Super Display	TRANSFER TO MAILBOX RETRIEVE PARK AND PAGE
If called extension is in Do Not Disturb	Keyset	MSG OVRD RTRV PKPG
	Super Display	TRANSFER TO MAILBOX DND OVERRIDE RETRIEVE PARK AND PAGE
If you hear busy/ring	Keyset	MBOX VOVR RTRV PKPG
	Super Display	TRANSFER TO MAILBOX VOICE OVER RETRIEVE PARK AND PAGE
After using CONF to set up a Conference (but before destination answers)		
If called extension answers announcement using Handsfree Answerback	Keyset	MSG RING RLS
	Super Display	LEAVE MESSAGE RING RELEASE
If called extension is ringing	Keyset	MSG RLS
	Super Display	LEAVE MESSAGE RELEASE

Interactive Soft Keys

Call States		
State	Phone Type	Keys
If called extension is busy	Keyset	MSG CAMP CLBK MORE BARG MON MORE
	Super Display	LEAVE MESSAGE CAMP ON CALLBACK BARGE IN SILENT MONITOR
If called extension is in Do Not Disturb	Keyset	MSG OVRD RLS
	Super Display	LEAVE MESSAGE DND OVERRIDE RELEASE
If you hear busy/ring	Keyset	MSG VOVR BARGE MON
	Super Display	LEAVE MESSAGE VOICE OVER BARGE IN SILENT MONITOR
Door Box calls in the talk state		
After placing or answering a Door Box call	Keyset	OPEN RLS
	Super Display	OPEN DOOR RELEASE
After pressing OPEN to release the door strike	Keyset	CLOSE RLS
	Super Display	CLOSE DOOR RELEASE
Outside calls before talk state (interdigit time) set up		
After pressing line key from idle	Keyset	ALND DLSV RLS ACCT
	Super Display	AUTO REDIAL DIAL SAVE RELEASE ACCT CODE
After pressing ICM while on an outside call	Keyset	System drops trunk.DIR PAGE RTRV
	Super Display	System drops trunk.DIRECTORY PAGE RETRIEVE
After pressing CONF while on an outside call	Keyset	N/ADIR PAGE RTRV
	Super Display	N/ADIRECTORY PAGE RETRIEVE
Outside calls in the talk state		
Outgoing or Incoming	Keyset	ALND PARK TRF MORE CONF REC SAVE MORE TIME ACCT MORE
	Super Display	AUTO REDIAL PARK TRANSFER CONFERENCE RECORD SAVE TIMER ACCT CODE
While in a Conference		
	Keyset	N/A
	Super Display	N/A
Intercom call		
Answered	Keyset	CONF RLS
	Super Display	CONFERENCE RELEASE

Interactive Soft Keys

Call States		
State	Phone Type	Keys
Paging		
While receiving a Page broadcast	Keypad	N/A
	Super Display	N/A
While Meet Me Paging is active	Keypad	N/A
	Super Display	N/A

Description



DS1000/2000 || Available.



Use Intercom to call any co-worker.

Intercom gives extension users access to other extensions. This provides the system with complete internal calling capability.

Handsfree Answerback and Forced Intercom Ringing

Handsfree Answerback permits an extension user to respond to a voice-announced Intercom call by speaking toward the phone, without lifting the handset. Like Handsfree, this is a convenience for workers who don't have a free hand to pick up the handset. Incoming Intercom calls alert with two beeps if the extension has Handsfree Answerback — a single beep if it does not.

Forced Intercom Ringing causes an Intercom call to ring the destination extension. You can enable Forced Intercom Ringing system-wide (for all extensions), or a user can dial a code to have their Intercom call ring the destination.

For more on setting up Handsfree Answerback and Forced Intercom Ringing, see **Handsfree and Handsfree Answerback** (page 287) for more.

Conditions

None

Default Setting

Intercom calling always enabled.

Programming Guide

Step-by-step guide for setting up Intercom

Step 1: When placing Intercom calls, do extension users have adequate time to dial their Intercom digits before the system disables dialing?

If yes

If no

- In *Program 0401 - Intercom Inter-digit* (page 642), leave the Intercom Interdigit time at its default setting.
- In *Program 0401 - Intercom Inter-digit* (page 642), change the Intercom Interdigit time to meet the site requirements.

Step-by-step guide for setting up Intercom

Step 2: Should Intercom calls voice-announce system-wide?

If yes

- In *Program 0201 - Voice-Announced Intercom Calls* (page 628), enter Y to allow Intercom calls to voice-announce system-wide. Users can still dial 1 to have their calls ring.
- In *Program 1807 - Station Voice Announced Intercom Calls* (page 771), enter Y to enable voice-announced intercom calls for specific extensions. The User-Programmable Options **#IV** (#48) and **#IR** (#47) locally override this setting.

If no

- In *Program 0201 - Voice-Announced Intercom Calls* (page 628), enter N to have all Intercom calls ring system-wide. Users cannot dial 1 to have their calls voice-announce.

Step 3: Should user be able to respond to a voice-announced Intercom call without lifting the handset (i.e., by using Handsfree Answerback)?

If yes

- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 628), enter Y to enable Handsfree Answerback system-wide.
- In *Program 1802 - Handsfree Reply on Intercom Calls* (page 759), enter Y to enable Handsfree Answerback for specific extensions.

If no

- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 628), enter N to disable Handsfree answerback system-wide. Users must lift the handset to respond to voice-announced Intercom calls.

Programming List

- Program 0201 - Handsfree Reply on Intercom Calls** (page 628)
Enter Y to allow extension user to respond to voice-announced Intercom calls by just speaking toward the phone (i.e., by using Handsfree Answerback). When you enter N, the extension user must lift the handset to speak.
- Program 0201 - Voice-Announced Intercom Calls** (page 628)
Enter Y to enable voice-announced Intercom calls system-wide. If disabled, all Intercom calls ring (i.e., Forced Intercom Ringing is enabled).
- Program 1802 - Handsfree Reply on Intercom Calls** (page 759)
Enter Y to enable Handsfree reply (Handsfree Answerback) on a per-extension basis. Intercom calls initially ring when this option is disabled. This option requires that you have previously enabled *0201 - Handsfree Reply on Intercom Calls*.
- Program 0401 - Intercom Inter-digit** (page 642)
When an extension user places a call, they must dial each succeeding digit within this interval.
- Program 1807 - Station Voice Announced Intercom Calls** (page 771)
Enter Y to enable voice-announced Intercom calls on a per-extension basis. This option requires that you have previously enabled *0201 - Voice-Announced Intercom Calls*. The User-Programmable Options #IV (#48) and #IR (#47) locally override this setting.

Other Related Features

- Attendant Position** (page 37)
Designate each extension's operator.
- Call Coverage Keys** (page 59)
A user can press a Call Coverage Key as an alternative to dialing Intercom numbers.
- Call Waiting / Camp-On** (page 88)
A user can Camp-On after placing an Intercom call to a busy co-worker.
- Callback** (page 92)
A user can leave a Callback request after placing an Intercom call to a busy co-worker.
- Direct Station Selection (DSS)** (page 177)
A user can press a DSS key as an alternative to dialing Intercom numbers.
- Directory Dialing** (page 195)
Directory Dialing is a convenient alternative to manually dialing Intercom numbers.
- Extension Hunting** (page 239)
Voice-announced Intercom calls do not initiate hunting.
- Flexible Numbering Plan** (page 267)
Change the digits users dial to place Intercom calls to co-workers.
- Group Call Pickup** (page 273)
Ringing Intercom calls activate Group Call Pickup if the extension ringing is a member of a Pickup Group.
- Handsfree and Handsfree Answerback** (page 287)
Handsfree Answerback allows a user to answer an Intercom call by just speaking toward the phone.
- Headset Compatibility** (page 291)
Extensions with headsets cannot receive voice-announced Intercom calls.
- Hotline** (page 302)
A user can press a Hotline Key as an alternative to dialing Intercom numbers.
- Last Number Redial** (page 351)
Last Number Redial cannot redial Intercom calls.
- Message Waiting** (page 368)
A user can leave a Message Waiting after placing an Intercom call to a busy co-worker.
- Music on Hold** (page 381)
Music on Hold plays to Intercom callers on Hold.

Intercom

Names for Extensions and Trunks (page 384)

Extension names help identify Intercom callers to co-workers.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

All Intercom calls to On- and Off-Premise Extensions ring.

Paging (page 409)

Intercom ringing can broadcast over the External Paging speakers.

Ringdown Extension (page 463)

Ringdown Extension follows the voice-announce status of destination extension. For example, if an extension usually voice-announces Intercom calls, a ringdown to that extension will also voice-announce.

Ring Line Preference (page 465)

Ring Line Preference answers a ringing Intercom call before a ringing trunk call.

Single Line Telephones (page 479)

Single line telephones cannot receive voice-announced Intercom calls.

Transfer (page 558)

The system cannot Transfer Intercom calls.


Voice Over (page 600)

An extension user can Voice Over to a co-worker busy on an Intercom call.

Volume Controls (page 603)



The default Intercom (station-to-station) gain is 0 dB. While on an Intercom call, use VOL ▲ and VOL ▼ to change this setting.

Feature Operation



 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Voice Announce (for your incoming Intercom calls)	#VA	#VA + V for voice announce or R for ring + SPK to exit.	3-5

To place an Intercom call:

- Lift handset and press **ICM**.

 Intercom dial tone.
 **ICM** on (red).



- Dial extension number (300-427 in DS2000, 300-333 in DS1000).

 Two beeps (if voice-announced) or ringing.
 N/A

To call the operator, dial the operator's extension number or dial 0 or 01-04 (depending on how your system is set up).



If your call voice-announces the destination, you can dial 1 to force the call to ring.

To answer an Intercom call (if you hear two beeps and your phone has Handsfree Answerback):

 Two beeps.
 **ICM** and **SPK** on (red).

1. Speak toward phone.
OR
Lift the handset for privacy.

To answer an Intercom call (if you hear one beep and your phone does not have Handsfree Answerback):

 One beep.
 **ICM** and **SPK** on (red).

1. Lift the handset.

To answer an Intercom call (if you hear ringing):

 Intercom ringing.
 **ICM** flashes.

1. Lift the handset.

Key Ring

Description



DS1000

Key Ring enabled by default.

DS2000

Key Ring is enabled by default only at extensions 300-315 for trunks 1-12.



So they are not forgotten, unanswered calls automatically ring co-worker's extensions.

A Key Ring trunk rings an extension according to the settings in **Program 1805 - Ring Assignments** (page 767). Multiple extensions can be enabled to ring immediately or after a programmed delay for each incoming trunk call. In addition, under certain conditions other types of trunk calls divert to Key Ring if unanswered. The following conditions also initiate Key Ring:

- **Direct Inward Line**
An unanswered DIL diverts to Key Ring if unanswered at the extension to which it is terminated (see *Direct Inward Line* on page 170 for more).
- **Hold**
Calls left on Hold too long recall the extensions that initially placed them on Hold. If still unanswered, they divert to Key Ring.
- **Park**
Calls parked in orbit recall the extension that initially parked them. If unanswered, the call diverts to Key Ring.
- **Transfer**
An unanswered Transfer recalls the extension that initially transferred it. If still unanswered, the trunk diverts to Key Ring.

Overflow for Key Ring Calls

If unanswered, Key Ring calls can route to a programmed overflow destination. The overflow destination can be an extension, Ring Group, UCD Group or Voice Mail. You can set up separate Key ring overflow destinations for the day mode and at night. If unanswered at the overflow destination, the call again diverts to Key Ring. Note that a Key Ring trunk goes into the night mode when any extension with night mode capability presses their Night (System Mode System) key. See *Night Service / Night Ring* on page 389 for more.

Conditions

None

Default Setting

Enabled. (In DS2000, Key Ring is enabled by default only at extensions 300-315.)

Programming Guide

Step-by-step guide for setting up Key Ring (Page 1 of 2)

Step 1: Should extension have Key Ring for trunk?

If yes



- In *Program 1805 - Ring Assignments* (page 767),
- Enter 2 for day & night Key Ring,
- Enter 3 for night only Key Ring,
- Enter 4 for delayed day & night Key Ring.
- To ensure that a trunk will always have a ring destination, consider making at least one extension in the system type 2 for all trunks.

If no



- In *Program 1805 - Ring Assignments* (page 767), enter 1 for lamp only (no Key Ring).

Step 2: Should trunk be a Key Ring trunk during the day?

If yes



- In *Program 1003 - Direct Termination (Day)* (page 712), press CLEAR to assign the trunk as a day mode Key Ring trunk.

If no



- Refer to *Direct Inward Line* on page 170 to make a different day mode assignment for the trunk.

Step 3: Should trunk overflow during the day mode?

If yes



- In *Program 1003 - Activate Overflow During the Day* (page 712), enter Y.
- In *Program 1003 - Day Overflow Destination* (page 712), assign the extension, Ring Group, UCD Group master number or Voice Mail master number you want to use for the trunk's day mode overflow destination.

If no



- In *Program 1003 - Activate Overflow During the Day* (page 712), enter N.

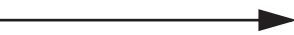
Step 4: Should trunk be a Key Ring trunk during the night?

If yes



- In *Program 1003 - Direct Termination (Night)* (page 713), press CLEAR to assign the trunk as a night mode Key Ring trunk.

If no



- Refer to *Direct Inward Line* on page 170 to make a different night mode assignment for the trunk.

Step-by-step guide for setting up Key Ring (Page 2 of 2)

Step 5: Should trunk overflow during the night mode?

If yes

- In *Program 1003 - Activate Overflow at Night* (page 713), enter Y.
- In *Program 1003 - Night Overflow Destination* (page 713), assign the extension, Ring Group, UCD Group master number or Voice Mail master number you want to use for the trunk's night mode overflow destination.

If no

- In *Program 1003 - Activate Overflow at Night* (page 713), enter N.

Step 6: Do the trunks ring their initial mode destinations for the correct interval before diverting to the overflow destination?

If yes

- In *Program 0401 - Trunk Revert* (page 644), leave the Trunk Revert interval at its currently assigned value.

If no

- In *Program 0401 - Trunk Revert* (page 644), change the Trunk Revert interval to meet the site requirements.

Step 7: Do the trunks ring their overflow destinations for the correct interval before diverting to the Key Ring?

If yes

- In *Program 0401 - Transfer Recall* (page 642), leave the Transfer Recall interval at its currently assigned value.

If no

- In *Program 0401 - Transfer Recall* (page 642), change the Transfer Recall interval to meet the site requirements.

Programming List

Program 0401 - Transfer Recall (page 642)

This interval sets how long a call will ring the day or night overflow destination before diverting to key ring.

Program 0401 - Trunk Revert (page 644)

This interval sets how long a call will ring its initial day or night mode destination before routing to the programmed overflow destination.

Program 1003 - Direct Termination (Day) (page 712)

Press CLEAR to assign the trunk to Key Ring in the day mode.

Program 1003 - Activate Overflow During the Day (page 712)

Enter Y if unanswered day mode calls on the trunk should route to the day overflow destination. Enter N if unanswered calls should stay at Key Ring.

Program 1003 - Day Overflow Destination (page 712)

Enter the extension, Ring Group, UCD Group master number or Voice Mail master number that you want to assign as the day overflow destination.

Program 1003 - Direct Termination (Night) (page 713)

Press CLEAR to assign the trunk to Key Ring in the night mode.

Program 1003 - Activate Overflow at Night (page 713)

Enter Y if unanswered night mode calls on trunk should route to the night overflow destination. Enter N if unanswered calls should stay at Key Ring.

Program 1003 - Night Overflow Destination (page 713)

Enter the extension, Ring Group, UCD Group master number or Voice Mail master number that you want to assign as the night overflow destination.

Program 1805 - Ring Assignments (page 767)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night). To ensure that a trunk will always have a ring destination, consider making at least one extension in the system type 2 for all trunks.

Other Related Features

Call Coverage Keys (page 59)

Call Coverage will pick up Key Ring calls.

Call Forwarding (page 63)

A Key Ring call will not follow an extension's Call Forwarding.

Call Waiting / Camp-On (page 88)

A Key Ring call will not send Camp-On beeps to a busy extension that normally rings for that call.

Direct Inward Line (page 170)

An unanswered DIL reverts to all extensions with Key Ring for the trunk.

Extended Ringing (page 237)

With Extended Ringing, a call rings longer at its destination before diverting to Key Ring.

Hold (page 296)

Unanswered Hold Recalls revert to Key Ring if not picked up.

Off-Hook Signaling (page 394)

Off-Hook Signaling can occur for Key Ring calls.

Park (page 420)

An unanswered Park recall diverts to Key Ring.

Transfer (page 558)

An unanswered call transferred to an extension diverts to Key Ring if unanswered at the transferring extension.

Feature Operation

Key Ring is automatic for those extensions programmed to receive it.

Language Selection

Description



DS1000/2000

Requires software version 03.10.08 or higher.



Set up a telephone to show displays and soft keys in English or Spanish.

Language Selection provides telephone displays for soft keys and system programming in English and Spanish. You can select the language for each extension in system programming, or the extension user can choose their language via the soft keys. Language Selection allows the system to easily accommodate bilingual installations (English and Spanish). The telephone user can have their telephone display the language with which they are most comfortable.

Language Selection and SMDR

Language Selection also allows you to print the Station Message Detail Recording (SMDR) header and call type data in English or Spanish. Following is a sample SMDR report in Spanish:

Registro de Detalle de Llamados
05/11/2003 11:47A

Ext	Lin	Numero Marcado	Cuenta	Inicio	Duracion	T
304	03	5551212		11:47:12A	00:00:05	SAL
304	03	5552145		11:42:37A	00:00:08	SAL
102	02	2126657845		11:43:30A	00:00:16	TMB
102	02	MACDONALD MIKE		11:43:30A	00:00:16	TMB
304	02	2126657845		11:44:11A	00:00:08	ENT
304	02	MACDONALD MIKE		11:44:11A	00:00:08	ENT

Conditions

None

Default Setting

- The telephone display language is English.
- The SMDR language is English.
- The attendant (COS 1) can change an extension's display language. All other extensions (COS 2) cannot.

Programming Guide

Step-by-step guide for setting up Language Selection

Step 1: Should extension user be able to set their own display language?

If yes

- In *Program 0101 - Allow Language Programming* (page 625), enter Y to enable the extension's ability to set their display language.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Allow Language Programming* (page 625), enter N to prevent an extension from changing their display language.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 2: In system programming, do you want to set an extension's display as English or Spanish.

English

- In *Program 1807 - Display Language* (page 773), enter 0.

Spanish

- In *Program 1807 - Display Language* (page 773), enter 1.

Step 3: Do you want the SMDR data and Call Type header to be English or Spanish.

English

- In *Program 0301 - SMDR Language* (page 637), enter 0.

Spanish

- In *Program 0301 - SMDR Language* (page 637), enter 1.

Programming List

Program 0101 - Allow Language Programming (page 625)

Use this option to enable (Y) or disable (N) an extension's ability to set their display language. If enabled, the extension user can access language programming via their soft keys. If disabled, language programming is not allowed.

Program 0301 - SMDR Language (page 637)

Use this option to set the language of the SMDR header and the data in the SMDR Call Type (T) field. The options are 0 (English) or 1 (Spanish). Changing this option has no affect on the telephone displays.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Language Selection

Program 1807 - Display Language (page 773)

Use this option to set the language for the telephone display (including system programming). The options are 0 (English) and 1 (Spanish). You can also set this option from the keyset using the soft keys (if enabled in the extension's Class of Service).

Other Related Features

Regional Defaults (page 455)

Changing the Regional Default to Latin America automatically switches all telephone displays to Spanish and enables the Spanish SMDR header and Call Type data.

Station Message Detail Recording (page 498)

The SMDR header and Call Type data can print in either English or Spanish.

Feature Operation

To select the display language:

From a 22- or 34-Button Display telephone:

1. Press **PGM + MORE + MORE + LANG**.
2. Press one of the following:
 - **ENG** (ING) for English
 - **SPA** (ESP) for Spanish
 - **EXIT** (SAL) to exit without changing the language.
3. Press **CONF** to hang up.

From a Super Display telephone

1. Press **PROGRAM + LANGUAGE**.
2. Press one of the following:
 - **ENGLISH** (INGLES) for English
 - **SPANISH** (ESPANOL) for Spanish
 - **EXIT** to exit without changing the language.
3. Press **EXIT** again to return to idle.

Description



DS1000/2000

Available.



Quickly redial the last number dialed.

Last Number Redial allows an extension user to quickly redial the last outside number dialed. For example, a user may quickly recall a busy or unanswered number without manually dialing the digits. Last Number Redial saves in system memory the last 20 digits a user dials. The number can be any combination of digits 0-9, # and *. The system remembers the digits regardless of whether the call was answered, unanswered or busy. The system normally uses the same trunk as for the initial call. However, if that trunk is busy and is part of a trunk group, Last Number Redial will automatically select the next trunk in the group. The user can also preselect a specific trunk if desired.

Enhanced Last Number Redial

In enabled, Enhanced Last Number Redial allows the extension user to select from the last 5 outside numbers dialed. When the user places a trunk call, the number dialed is stored in the Enhanced Last Number Redial buffer. This buffer saves the 5 most recent numbers (including Speed Dial calls), with the most recent call at the top of the buffer and the oldest number at the bottom of the buffer. Old calls get pushed off the bottom of the buffer to make room for new calls at the top. If a user dials a number that is already stored in the buffer, the system inserts the number at the top of the buffer and deletes the duplicate entry.

The numbers stored in the Enhanced Last Number Redial buffer are retained if the system resets or is powered down.

Enhanced Last Number Redial is only available at display telephones.

Automatic Hyphenation in the Enhanced Last Number Redial Display

The system will automatically insert hyphens in the Enhanced Last Number Redial display for the types of calls listed below. All other calls are displayed without hyphens.

- NNX + xxxx calls (e.g., 926-5400)
- NPA + NNX + xxxx calls (e.g., 203-926-5400)
- 1 + NPA + NNX + xxxx calls (e.g., 1-203-926-5400)

If the call is placed on a PBX trunk, and the PBX access code is dialed, the display shows the PBX access code, a space, followed by the dialed number using the same hyphenation as shown above (e.g., 9 1-203-926-5400). If the PBX access code is not dialed, the number is displayed without hyphens.

Conditions

None

Default Setting

- Enabled
- Enhanced Last Number Redial is enabled in an extension's Class of Service.

Last Number Redial

Programming Guide

Step-by-step guide for setting up Last Number Redial

Step 1: Should extension be able to use Last Number Redial on the trunk?

If yes

- In *Program 1803 - Extension Line Access Assignments* (page 763),
 - Enter 2 for outgoing only access,
 - Enter 3 for full access.

If no

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 0 for no access.

Step 1: Should extension have Enhanced Last Number capability?

If yes

- In *Program 0101 - Enhanced LND* (page 623), enter Y to enable Enhanced Last Number Redial.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Enhanced LND* (page 623), enter N to disable Enhanced Last Number Redial.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Programming List

Programming

Program 0101 - Enhanced LND (page 623)

Use this option to enable (Y) or disable (N) Enhanced Last Number Redial. If enabled, the extension has Enhanced Last Number Redial with the 5 number redial buffer and the enhanced operation. If disabled, the extension has traditional Last Number Redial with a single number redial buffer and the standard operation.

Program 1801 - Extension Class of Service Assignment (page 755)

Use this option to assign Class Of Service to extensions.

Program 1803 - Extension Line Access Assignments (page 763)

An extension can only use trunks for Last Number Redial for which it has outgoing access. The access options are: 0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access.

Other Related Features

Account Codes (page 24)

Last Number Redial does not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Last Number Redial.

Auto Redial (page 42)

Auto Redial periodically redials a busy outside number.

Central Office Calls, Placing (page 119)

Users can easily redial the last outside number dialed.

Intercom (page 339)

Last Number Redial cannot redial Intercom calls.

Save Number Dialed (page 468)

Save also simplifies dialing important numbers.

Toll Restriction (page 549)

Last Number Redial will not store a number denied by Toll Restriction.


Trunk (Line) Queuing / Trunk Callback (page 569)

If all trunks are busy and Last Number Redial cannot go through, the user can dial 2 a queue for a trunk to become free. If the user hangs up, the system converts the queue to a Trunk Callback.

Feature Operation

To redial your last call:

1. Lift the handset.
2. (Optional) Press an idle line key to preselect a trunk.
If you skip this step, the system automatically selects a trunk from the same group as your original call.
3. Press **LND**.

 Dial tone, then your call dialing out.

 Line key on (green).

If you hear busy tone, you can dial 2 to queue for a trunk to become free. If you hang up, the system converts the queue to a Trunk Callback.

Last Number Redial

Enhanced Last Number Redial

To use Enhanced Last Number Redial:

22-Button and 34-Button Display Telephone Operation

To redial your last call (when Enhanced Last Number Redial is enabled):

If you select a line key before going to step 1, the system automatically outdials your most recent call when you press LND.

1. Press **LND**. You see (for example):



LAST 5 DIALED [11]
1-203-926-5400

*The number to the right of the display shows the Last Number Redial record number (1-5). To return your phone to idle, press **LND** again.*

2. (Optional) Press **Vol Up** or **Vol Down** to display the number you want to recall.
3. Press **SPK, DIAL** or lift the handset to recall the displayed number.

*The system tries to use the same trunk as that used for your initial call.
- If that trunk is busy, the system selects a trunk from the same group as your initial call.
- If all trunks are busy, you can dial 2 to leave a Trunk Queue or Trunk Camp On. The number will automatically redial when the Trunk Queue or Trunk Camp On goes through.*


To erase (clear) all the numbers from your Enhanced Last Number Redial buffer:

1. Press **LND**. You see (for example):



LAST 5 DIALED [11]
1-203-926-5400

2. Press **CLEAR**. You see:



Clear Dial History
YES NO

3. Press the **YES** soft key to erase all the numbers in the Last Number Redial buffer and return to idle.

OR

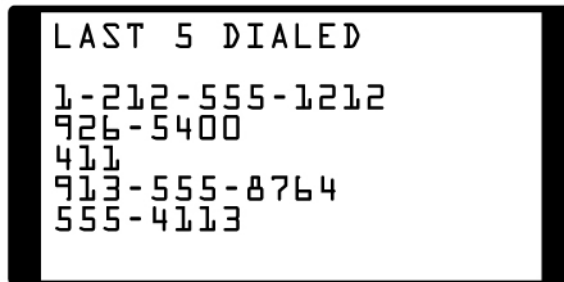
Press the **NO** soft key to return to step 1 without erasing the buffer.

Super Display Telephone Operation

To redial your last call (when Enhanced Last Number Redial is enabled):

If you select a line key before going to step 1, the system automatically outdials your most recent call when you press LND.

1. Press **LND**. You see (for example):

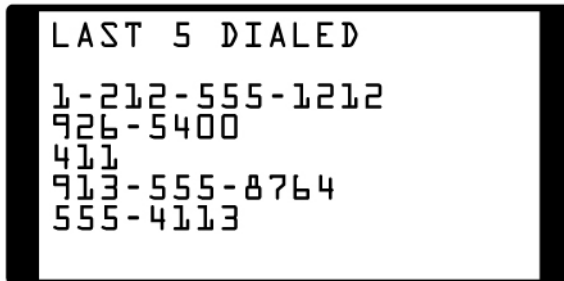


To return your phone to idle, press LND again.

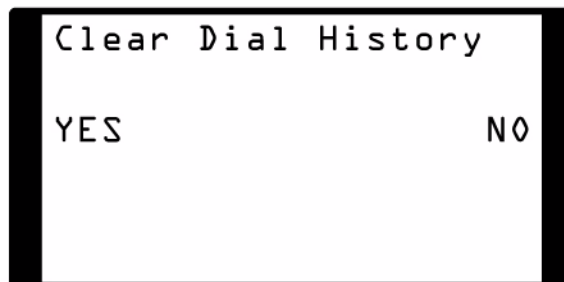
2. Press the key that corresponds to the number you want to recall.
The system tries to use the same trunk as that used for your initial call.
- If that trunk is busy, the system selects a trunk from the same group as your initial call.
- If all trunks are busy, you can dial 2 to leave a Trunk Queue or Trunk Camp On. The number will automatically redial when the Trunk Queue or Trunk Camp On goes through.
3. The stored number dials out.

To erase (clear) all the numbers from your Enhanced Last Number Redial buffer:

1. Press **LND**. You see (for example):



2. Press **CLEAR**. You see:



3. Press the **YES** soft key to erase all the numbers in your Last Number Redial buffer and return to idle.
OR
Press the **NO** soft key to return to step 1 without erasing the buffer.

Line Keys

Description



DS1000/2000

Available.



Press a line key for one-touch access to an outside line.

A line key provides an extension user with one-button access to trunks. The extension user just presses a line key to place or answer a call on the trunk. There is no need to dial codes to access or intercept trunk calls. In addition, a line key provides a Busy Lamp Field (BLF) for the trunk to which it is assigned (see the table below).

Line Key BLF Indications	
When the key is:	The trunk is:
Off	Idle or not installed
On (red)	In use or on Exclusive Hold at a co-worker's extension
On (green)	In use at your extension
Winking on (red)	On System Hold at a co-worker's extension
Winking on (green)	On System Hold at your extension
Flashing slowly (red)	Ringling into the system
Flashing slowly (green)	Ringling or recalling directly to your extension

Answering Priority

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. **ICM** Key
2. Line Key (from lowest to highest)
3. Loop Key (from lowest to highest)

Conditions

None

Default Setting

(DS2000) Keys 1-12 are line keys for trunks 1-12.

(DS1000) Keys 1-6 are line keys for trunks 1-6.

Programming Guide

Step-by-step guide for setting up Line Keys

Step 1: Should extension have a line key for the trunk?

If yes

- In *Program 1701 - Line Key* (page 737), assign a key as a line key (code 03). The option is 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

If no

- In *Program 1701 - Line Key* (page 737), do not assign a key as a line key (code 03).

Step 2: For the trunk assigned to the line key, should extension have incoming, outgoing or full (both ways) access to the trunk?

Incoming

- In *Program 1803 - Extension Line Access Assignments* (page 763), assign option 1 (incoming only).

Outgoing

- In *Program 1803 - Extension Line Access Assignments* (page 763), assign option 2 (outgoing only).

Both

- In *Program 1803 - Extension Line Access Assignments* (page 763), assign option 3 (full access).

Step 3: Should extension have ringing assigned to the line key?

If yes

- In *Program 1805 - Ring Assignments* (page 767), enter the ringing mode for the trunk (2 = ringing day and night, 3 = night ringing only, 4 = delay ringing day and night).

If no

- In *Program 1805 - Ring Assignments* (page 767), enter 1 (lamp only).

Step 4: Should extension have ability to press a line key for an outside line?

If yes

- In *Program 1802 - Key Access to Outbound Lines* (page 760), enter Y.

If no

- In *Program 1802 - Key Access to Outbound Lines* (page 760), enter N.

Line Keys

Programming List

Program 1701 - Line Key (page 737)

Assign a programmable key as a line key (code 03). The option is 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000.

Program 1802 - Key Access to Outbound Lines (page 760)

Enter Y to enable or N to disable key access to outbound lines.

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 767)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features

Automatic Handsfree (page 45)

Automatic Handsfree allows the keyset user to answer a call ringing a line key without lifting the handset; they just press the line key instead.

Central Office Calls, Placing (page 119)

Line Keys give a user one-touch access to specific trunks.

Direct Inward Line (page 170)

When you assign a trunk as a DIL, it continues to flash its previously programmed line/loop key assignments. It will ring line/loop keys only after diverting to Key Ring.

Distinctive Ringing (page 200)

By using Key Ring Override, Distinctive Ringing allows an extension user to set up unique ringing for their line keys.


Loop Keys (page 360)

Loop keys also provide one-button access to trunks.



Ringing Line Preference (page 465)

Ringing Line Preference allows an extension user to answer a call ringing a line key just by lifting the handset.

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Line Keys	#RA	#RAL + Call Coverage Key repeatedly to select ringing mode + SPK to exit. Line keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green, Night ring=Slow flash green.	2-5

To place a call over a specific trunk using a line key:

1. Lift handset.
2. Press line key.
 -  Trunk dial tone.
 -  Line key on.

You may also be able to press a Loop Key. See Loop Keys on page 360 for more.

3. Dial outside number.

To answer an incoming trunk call:



Trunk ring.



Line key flashing red for calls that ring you and your co-workers.

Line key flashing green for calls that ring you directly (such as DILs and transfers).

1. Lift handset.

If you have Ringing Line Preference, lifting the handset answers the call.

If you have Automatic Handsfree, you can press the line or loop key without first lifting the handset.

2. Press flashing line key.



Conversation with caller.



Line key on.

Loop Keys

Description



DS1000/2000

Available.



Loop keys simplify answering and placing calls.

Loop keys are programmable keys that simplify the way extension users place and answer outside calls. There are two types of loop keys: Switched Loop Keys and Fixed Loop Keys.

Switched Loop Keys

For incoming calls, Switched Loop Keys provide an appearance for any trunk *not* assigned to a line key for which the extension has access and ringing. Switched Loop Keys insure that there is a visual appearance for trunks that do not ring an extension's line keys.

For outgoing calls, Switched Loop Keys provide convenient access to the "dial 9" trunk groups. For example, instead of pressing ICM and dialing 90 for trunk group 90, the user can just press the Switched Loop Key and dial 0 instead.

Fixed Loop Keys

For outgoing calls, a Fixed Loop Key is a loop key assigned to a specific trunk group. When the extension user presses the Fixed Loop Key for an outgoing call, they get the first trunk in the group assigned to the key.

For incoming calls, the Fixed Loop Key works just like a Switched Loop Key. It provides an appearance for any trunk not assigned to a line key for which the extension has access and ringing.

Answering Priority

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. **ICM** Key
2. Line Key (from lowest to highest)
3. Loop Key (from lowest to highest)

Conditions

None

Default Setting

- No Switched Loop or Fixed Loop Keys assigned.

Programming Guide

Step-by-step guide for setting up Loop Keys

Step 1: Should extension have a Switched Loop Key?

If yes



- In *Program 1701 - Switched Loop Key* (page 737), assign a key as a Switched Loop Key (code 01).

If no



- In *Program 1701 - Switched Loop Key* (page 737), do not assign a key as a Switched Loop Key (code 01).

Step 2: Should extension be able to use Switched Loop Key for answering outside calls?

If yes



- In *Program 1803 - Extension Line Access Assignments* (page 763), assign incoming (1) or full (3) access to the trunks that should be able to ring the Switched Loop Key. ***Be sure all trunks assigned ringing in 1805 below also have incoming or full access.***
- In *Program 1805 - Ring Assignments* (page 767), assign day/night ringing (2), night only ringing (3), or delayed day/night ringing (4) to each trunk that should be able to ring the Switched Loop Key.

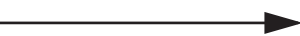
If no



- In *Program 1803 - Extension Line Access Assignments* (page 763), do not assign incoming (1) or full (3) access to the trunks that should be able to ring the Switched Loop Key.

Step 3: Should extension user be able to place outgoing calls on Switched Loop Keys?

If yes



- In *Program 1002 - Trunk Groups* (page 709), assign installed trunks to trunk groups.
- In *Program 1803 - Extension Line Access Assignments* (page 763), assign outgoing (2) or full (3) access to the trunks that should be available for placing calls from the Switched Loop Key.

If no



- In *Program 1002 - Trunk Groups* (page 709), do not assign installed trunks to trunk groups.

Loop Keys

Step-by-step guide for setting up Loop Keys

Step 4: Should extension have Fixed Loop Keys?

If yes

- In *Program 1701 - Fixed Loop Key* (page 737), assign a key as a Fixed Loop Key (code 02 + Trunk Group 90-98).
- In *Program 1002 - Trunk Groups* (page 709), assign installed trunks to the trunk groups assigned to the Fixed Loop Keys.

If no

- In *Program 1701 - Fixed Loop Key* (page 737), do not assign a key as a Fixed Loop Key (code 02).

Step 5: Should extension have Fixed Loop Keys for answering outside calls?

If yes

- In *Program 1803 - Extension Line Access Assignments* (page 763), assign incoming (1) or full (3) access to the trunks in the assigned group that should be able to ring the Fixed Loop Key. **Be sure all trunks assigned ringing in 1805 below also have incoming or full access.**
- In *Program 1805 - Ring Assignments* (page 767), assign day/night ringing (2), night only ringing (3), or delayed day/night ringing (4) to each trunk in the group that should be able to ring the Fixed Loop Key.

If no

- In *Program 1803 - Extension Line Access Assignments* (page 763), do not assign incoming (1) or full (3) access to the trunks in the assigned group that should be able to ring the Fixed Loop Key.

Step 6: Should extension user be able to place outgoing calls on Fixed Loop Keys?

If yes

- In *Program 1803 - Extension Line Access Assignments* (page 763), assign outgoing (2) or full (3) access to the trunks that should be available for placing calls from the Fixed Loop Key.

If no

- In *Program 1803 - Extension Line Access Assignments* (page 763), do not assign outgoing (2) or full (3) access to the trunks that should be available for placing calls from the Fixed Loop Key.

Programming List

Program 1002 - Trunk Groups (page 709)

Assign trunks to trunk groups.

Program 1701 - Switched Loop Key (page 737)

Assign a programmable key on an extension as a Switched Loop Key (code 01).

Program 1701 - Fixed Loop Key (page 737)

Assign a programmable key on an extension as a Loop Key (code 02). The options are 0-8 (Trunk Groups 0-8).

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 767)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features

Automatic Handsfree (page 45)

Automatic Handsfree allows the keyset user to answer a call ringing a line key without lifting the handset; they just press the line key instead.

Call Forwarding (page 63)

Call Forwarding will not reroute a call ringing a loop key (unless the call is a DIL or transferred call).

Central Office Calls, Answering (page 113)

An extension user can press a Loop Key to answer an outside call.

Central Office Calls, Placing (page 119)

An extension user can press a Loop Key to place an outside call.

Direct Inward Line (page 170)

When you assign a trunk as a DIL, it continues to flash its previously programmed line/loop key assignments. It will ring line/loop keys only after diverting to Key Ring.

Line Keys (page 356)

Loop keys also provide one-button access to trunks.

Ring Line Preference (page 465)

Ring Line Preference allows an extension user to answer a call ringing a loop key just by lifting the handset.



Trunk Groups (page 572)

Switched and Fixed Loop Keys use the system's Trunk Groups.

Loop Keys

Feature Operation

To answer a call on a Loop Key:

 Trunk ringing.
 Loop Key flashing (red).

1. Lift handset.
2. Press Switched Loop Key.



 Conversation with caller.
 Loop Key on (green).

To place a call on a Loop Key:

1. Lift handset.
2. Press Loop Key.

 Intercom dial tone.
 Loop Key on (green).

3. Dial trunk group code (0-8).

 Trunk dial tone.
 Loop Key on (green).

4. Dial outside number.

Description



DS1000/2000

Available.



Set up a multiple-party telephone conversation with your co-workers.

With Meet-Me Conference, an extension user can set up a telephone meeting with their co-workers. Each party joins the Conference by dialing a Meet Me Conference code. Meet Me Conference lets extension users have a telephone meeting — without leaving the office. Users must join the meeting within the Meet-Me Conference interval.

The system has two Meet-Me Conference codes (#11 and #12). After a Meet-Me Conference is set up and the Meet-Me Conference interval expires, the code used becomes available for a new meeting. Since Meet-Me Conference is a type of Conference, the system's Conference capacity determines:

- The number of users that can join a Meet-Me Conference
- *and*
- The number of simultaneous conferences.

The following table shows the Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions

None

Default Setting

Meet-Me Conference enabled.

Meet-Me Conference

Programming Guide

Step-by-step guide for setting up Meet-Me Conference

Step 1: When a co-worker hears a Page for them to join a Meet-Me Conference, do they have enough time to join the telephone meeting?

If yes



- In *Program 0401 - Meet-Me Conference* (page 643), leave the Meet Me Conference interval at its assigned value.

If no



- In *Program 0401 - Meet-Me Conference* (page 643), lengthen the Meet Me Conference interval to meet the site requirements.

Step 2: When co-worker's are joining a Meet-Me Conference, is the length of time they have to join the meeting excessive?

If yes



- In *Program 0401 - Meet-Me Conference* (page 643), shorten the Meet Me Conference interval.

If no



- In *Program 0401 - Meet-Me Conference* (page 643), leave the Meet Me Conference interval at its currently assigned value.

Programming List

Program 0401 - Meet-Me Conference (page 643)

When a user initiates a Meet-Me Conference, the system waits this interval for the Paged party to join the call.

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 56)

Conference (page 142)




Group Listen (page 277)

Privacy (page 435)




Tandem Trunking / Unsupervised Conference (page 538)

Feature Operation

To set up a Meet-Me Conference:

1. Page parties and announce the Meet-Me Conference code (#11 or #12).
See Paging on page 409 for more on how to page your co-workers.
2. Do not hang up.
3. Press **ICM**.
 Intercom dial tone.
 **ICM** on (red).
4. Dial announced Meet-Me Conference code (#11 or #12).
 Conversation with coworkers.
 - When the first co-worker joins the Conference, **ICM** flashes fast (until the Meet-Me Conference interval expires).
 - When the second and succeeding co-worker's join, **ICM** goes out.*Your co-worker's must join the telephone meeting within the Meet Me Conference time.*

To join a Meet-Me Conference:

1. Listen for paged invitation to join the Conference.
2. Press **ICM**.
 Intercom dial tone.
 **ICM** on (red).
3. Dial announced Meet-Me Conference code (#11 or #12).
 Conversation with coworkers.
 - When the first co-worker joins the Conference, **ICM** flashes fast (until the Meet-Me Conference interval expires).
 - When the second and succeeding co-worker's join, **ICM** goes out.*You can join the telephone meeting within the Meet Me Conference time.*

Message Waiting

Description



DS1000/2000 Available.



Leave a Message Waiting request for a return call.

An extension user can leave a Message Waiting indication at a busy or unanswered extension requesting a return call. The indication is a flashing MW key and Ring/Message lamp at the called extension. Answering the Message Waiting automatically calls the extension which left the indication. Message Waiting ensures that a user will not have to recall an unanswered extension. It also ensures that a user will not miss calls when their extension is busy or unattended.

Additionally, Message Waiting lets extension users:

- Cancel all messages left at their extension.
- Cancel message they left at co-worker's extensions.
- Scroll through their Messages Waiting and select a co-worker to call back.

An extension user can leave Messages Waiting at any number of extensions. Also, any number of extensions can leave a Message Waiting at the same extension.

Single Line Telephone Message Waiting Enhancements

Message Wait Lamping

The system provides two types of Message Wait lamping at single line telephone ports: High Voltage and FSK (Frequency Shift Keying).

- **High Voltage Message Waiting**
With High Voltage Message Waiting, the system switches the 150 VDC signal required to light the Message Waiting lamps on analog telephones with messages waiting. This type of lamping is typically used on conventional 2500 type sets with Message Waiting lamps. Check your system's single line sets to see if they require High Voltage Message Waiting. ***High Voltage Message waiting is not available in DS1000.***
- **FSK Message Waiting**
The system can alternately provide an FSK signal to light the Message Waiting lamp on an analog telephone. Instead of 150 VDC, FSK Message Waiting uses a modulated carrier signal to control lamping. This type of Message Wait signaling is typically used on new, electronic single line sets. Check your system's single line sets to see if they require FSK Message Waiting.

SLT Special Dial Tone

Either type of Message Wait lamping can be used with SLT Special Dial Tone. When SLT Special Dial Tone is enabled, an SLT user with messages waiting hears a pulsating Intercom dial tone when they lift the handset. Intercom dial tone returns to normal only after the SLT user dials *8 to answer *all* their Messages Waiting.

Hardware Requirements

FSK Message Waiting and Special Dial Tone have no unique hardware requirements. In DS2000, High Voltage Message Waiting requires analog station PCBs P/N 80040B (4ASTU) and P/N 80041B (8ASTU). ***High Voltage Message Waiting is not available in DS1000.***

Conditions

A power failure or system reset cancels all Messages Waiting system wide.

Default Setting

Enabled

Programming Guide

Step-by-step guide for setting up Message Waiting

Step 1: Should the system have Message Waiting capability (applicable only when Voice Mail is not installed)?

If yes

- In *Program 8001 - Voice Mail Setup* (page 776), enter 0 to disable Voice Mail.
- **The system can have Message Waiting or Voice Mail, not both.**

If no

- Skip this option.

Step 2: Should single line set have SLT Special Dial Tone?

If yes

- In *Program 0101 - SLT Special Dial Tone* (page 622), enable (Y) SLT Special Dial Tone in the single line port's Class of Service. (Note that this option has no affect on keyset ports with the same COS.)
- In *Program 0101 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - SLT Special Dial Tone* (page 622), disable (N) SLT Special Dial Tone in the single line port's Class of Service. (Note that this option has no affect on keyset ports with the same COS.)
- In *Program 0101 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Message Waiting

Step-by-step guide for setting up Message Waiting

Step 3: Should single line set have high voltage Message Waiting?

If yes

- In *Program 0101 - SLT High Voltage Message Waiting* (page 622), enable (Y) High Voltage Message Waiting in the single line port's Class of Service. **High Voltage Message Waiting is not available in DS1000.** If both this option and *0101 - SLT FSK Message Waiting* are enabled, the system uses FSK Message Waiting.
- In *Program 0101 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - SLT High Voltage Message Waiting* (page 622), disable (N) High Voltage Message Waiting in the single line port's Class of Service.
- In *Program 0101 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 4: Should single line set have FSK Message Waiting?

If yes

- In *Program 0101 - SLT High Voltage Message Waiting* (page 622), enable (Y) FSK Message Waiting in the single line port's Class of Service. If both this option and *0101 - SLT High Voltage Message Waiting* are enabled, the system uses FSK Message Waiting.
- In *Program 0101 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - SLT High Voltage Message Waiting* (page 622), disable (N) FSK Message Waiting in the single line port's Class of Service.
- In *Program 0101 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Programming List

Program 0101 - SLT Special Dial Tone (page 622)

Use this option to enable (Y) or disable (N) SLT Special Dial Tone in a single line port's Class of Service. (Note that this option has no affect on keyset ports with the same COS.)

Program 0101 - SLT High Voltage Message Waiting (page 622)

Use this option to enable (Y) or disable (N) High Voltage Message Waiting for single line ports. *High Voltage Message Waiting is not available in DS1000.* If both this option and 0101 - SLT FSK Message Waiting are enabled, the system uses FSK Message Waiting.

Program 0101 - SLT FSK Message Waiting (page 622)

Use this option to enable (Y) or disable (N) FSK Message Waiting for single line ports. If both this option and 0101 - SLT High Voltage Message Waiting are enabled, the system uses FSK Message Waiting.

Program 8001 - Voice Mail Setup (page 776)

Enter 0 to disable Voice Mail and enable Message Waiting.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class Of Service to extensions.

Other Related Features

Call Forwarding (page 63)

- An extension user cannot leave a Message Waiting at an co-worker that has Call Forwarding Immediate (*34) enabled. Pressing MW automatically leaves a message at the forwarding destination instead.
- An extension user cannot leave a Message Waiting at a busy co-worker that has Call Forwarding Busy/No Answer (*32) enabled. Pressing MW will automatically leave a message at the forwarding destination instead.

Do Not Disturb (page 220)

An extension user can leave a Message Waiting at an extension in Do Not Disturb.

Intercom (page 339)

A user can leave a Message Waiting after placing an Intercom call to a busy co-worker.

Voice Mail (page 580)

A system can have either Voice Mail or Message Waiting activated — not both.



Voice Over (page 600)

An extension user cannot leave a Message Waiting after using Voice Over.





Message Waiting

Feature Operation





To leave a Message Waiting:

1. Place Intercom call to co-worker.
The extension you call can be unanswered, busy or in Do Not Disturb.
2. Press **MW**.
 Intercom dial tone.
 **ICM** on (red).
3. Hang up.
MW blinks and the Ring/Message lamp flashes fast at the extension you call.

To answer a Message Waiting:

-  N/A
 **ICM** on (red).
1. Lift handset.
2. Press **MW**.
 Two beeps or ringing, then conversation with co-worker.
 **ICM** on (red).
If the extension you call is unanswered, busy or in DND, the system cancels Message Waiting.
If the called extension doesn't answer, press your MW key to automatically leave them a message.
Normally, your MW key and Ring/Message lamp go out. If they continues to flash, you have additional Messages Waiting.

To review your Messages Waiting and then select a message for a return call:

-  N/A
 **MW** flashing fast (red).
1. Do not lift the handset.
2. Press **MW**.
The first message displays. Press MW repeatedly to display additional Messages Waiting, if any.
3. When the extension you want to call displays, lift the handset.
4. Press **MW**.
 Two beeps or ringing.
 **MW** flashing fast (red).
If the extension you call is unanswered, busy or in DND, the system cancels Message Waiting.
If the called extension doesn't answer, press your Message Waiting key to automatically leave them a message.

Description



DS1000/2000

Available.



Talk to a co-worker in your office without your caller hearing the conversation.

Microphone Mute lets a keyset user turn off their phone's handset or Handsfree microphone at any time. While the extension is on-hook, Microphone Mute mutes the Handsfree microphone. While off-hook, Microphone Mute mutes the handset microphone. Once activated, Microphone Mute prevents the caller from hearing conversations in the user's work area. The user can turn off the Handsfree or handset microphone while their telephone is idle, busy on a call, in DND or while a call is ringing. The microphone stays off until the user turns it back on.

While an extension has their microphone muted, the calling party hears a single beep when the called extension's mic is muted.

Handsfree Reply Soft Key

Display keyset users can press their **HF REPLY (HFRP)** soft key to turn off their telephone's Handsfree microphone for incoming Intercom calls.

Conditions

A system reset or power failure cancels all Microphone Mutes system wide.

Default Setting

Enabled.

Programming List

None

Other Related Features

Extension Hunting (page 239)

If Music on Hold is enabled for transferred calls, a caller transferred to a busy UCD group hears MOH.

Handsfree and Handsfree Answerback (page 287)



Use Microphone Mute to temporarily turn off the Handsfree microphone.

Microphone Mute

Feature Operation

To activate Microphone Mute:

1. Press **MIC**.

 || The systems mutes your Handsfree microphone.
 || **MIC** on.

You can do this any time while on the phone or while your phone is idle.

To deactivate Microphone Mute:

 || N/A.
 || **MIC** on.

1. Press **MIC**.

 || N/A.
 || **MIC** off.

*Microphone Mute automatically cancels when the user lifts the handset. If the keyset is in the Headset Mode, Microphone Mute also cancels when the user presses **SPK**.*

Using the Handsfree Reply Soft Key

22-Button and 34-Button Display Telephone Operation

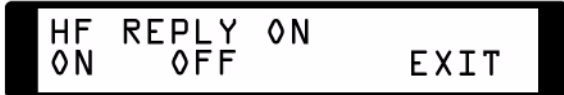
To turn off your telephone's microphone for Incoming Intercom calls:

1. Press **PGM** + **MORE**. You see:



```
1-1 FRI 11:10AM
HFRP RING VOL MORE
```

2. Press **HFRP**. You see:



```
HF REPLY ON
ON OFF EXIT
```

The first line of the display indicates whether Handsfree Reply is on or off.

3. To turn Handsfree Reply on (if it is off), press **ON**.
OR
To turn Handsfree Reply off (if it is on), press **OFF**.

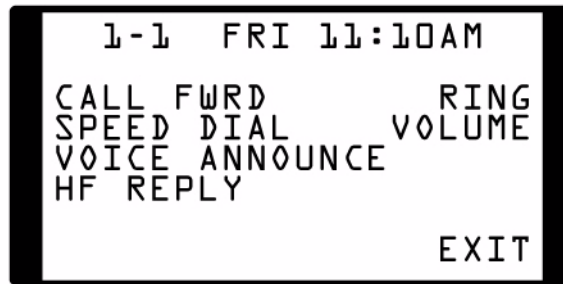
When you answer a voice-announced Intercom call (if Handsfree Reply is off):

*You hear a single beep in your speaker and the voice of the calling party. The **ICM**, **MIC**, and **SPK** keys are on.*

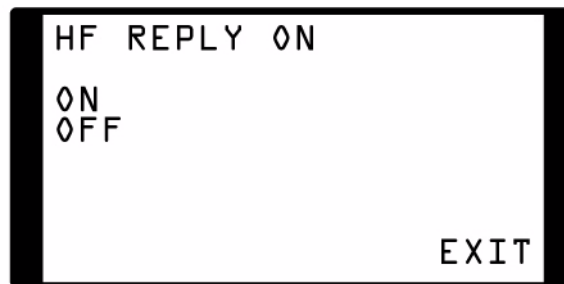
- To answer the voice-announcement, lift the handset.
OR
Press **MIC** to turn Handsfree Reply back on (*for this call only*).

Super Display Telephone Operation

1. Press **PROGRAM**. You see:



2. Press **HF REPLY**. You see:



The first line of the display indicates whether Handsfree Reply is on or off.

3. To turn Handsfree Reply on (if it is off), press **ON**.
OR
To turn Handsfree Reply off (if it is on), press **OFF**.

When you answer a voice-announced Intercom call (if Handsfree Reply is off):

*You hear a single beep in your speaker and the voice of the calling party. The **ICM**, **MIC**, and **SPK** keys are on.*

- To answer the voice-announcement, lift the handset.
OR
Press **MIC** to turn Handsfree Reply back on (*for this call only*).

Modem Cut-Through

Description

 DS1000	Available.
DS2000	Not available.



Maximize modem throughput speeds and obtain power failure cut-through on the same port.

The unique DS1000 Modem Cut-Through feature allows a modem connected to the system's analog modem port to achieve maximum throughput speeds on outside calls. In addition, a single line set plugged into the modem is a fully functional internal analog extension. This same single line set is also the system's power-failure telephone. It directly connects to an outside line if there is a commercial power failure.

With Modem Cut-Through, the system can automatically switch an outgoing call from the modem plugged into the PFT/MDM jack directly to trunk 1 or trunk 2. This effectively bypasses the system, allowing modem calls to achieve maximum modem connect speeds. Modem Cut-Through can also bypass the system on an incoming call to the extension plugged into the PFT/MDM jack (extension 316).

To have your modem directly answer incoming calls on trunk 1 or 2, make the trunk a DIL to the PFT/MDM extension. Turn to *Direct Inward Line* on page 170 for more.

Modem Setup

When using Modem Cut-Through, the modem's dial string for outgoing calls must contain the codes to access trunk 1 or trunk 2. There are several methods you can use:

- **Line Dial-up** (#9 followed by the trunk number 01-06)
Turn to *Central Office Calls, Placing* on page 119 for the programming required to enable Line Dial-up.
- **Direct Trunk Access** (1 plus the trunk number 01-06)
Turn to *Direct Trunk Access* on page 191 for the programming required to enable Direct Trunk Access.
- **Trunk Group Routing** (9 or 90-98)
Turn to *Trunk Group Routing* on page 566 for the programming required to enable Trunk Group Routing.

Conditions

- If you have a modem or power failure telephone connected to the PFT/MDM port, do not connect a Voice Mail port to extension 316. This is because extension 316 is in parallel with the PFT/MDM port.
- If you are going to use Modem Cut-Through, be sure your telco provides loop supervision for trunks 1 and 2.
- To ensure proper operation of the system's PFT/MDM port, software version 02.10.09 disables hookflash, Barge In and Privacy Release for the telephone connected to the PFT/MDM port. Also, the extension 316 user will hear reorder tone if they lift the handset while the telephone connected to the PFT/MDM port is already on a call.

Default Setting

Modem Cut-Through is always available, if connected.

Programming List

Program 0401 - Intercom Inter-digit (page 642)

The system uses this interval for an extension going into the talk state, which affects the Modem Cut-Through timing. Setting this timer too short or too long could effect DTMF receiver usage and create blocking. Normally, you should leave this timer at its default value (6 seconds). Some applications may require that it be shortened, but it is recommended that it not be lengthened.

Program 0402 - PBX/Centrex Flash (page 648)

When a call is received or placed on trunk 1 or trunk 2, the system waits this interval plus 100 mS) to determine if a system extension or the PFT/MDM port is connected to the call. If the PFT/MDM port is on the call, the system connects the port directly to the trunk.

Other Related Features

Voice Mail (page 580)

If you have a modem or power failure telephone connected to the PFT/MDM port, do not connect a Voice Mail port to extension 316. This is because extension 316 is in parallel with the PFT/MDM port.

Feature Operation

Operation is automatic if:

- Your modem is properly installed and connected to the PFT/MDM jack.
- The system programming provides a dialing method to access trunks 1 and/or 2.
- The codes to access trunks 1 or 2 are in the modem's dial string.

Monitor / Silent Monitor

Description



DS1000/2000

Available.



Monitor a co-worker's phone conversation without them knowing you are on the phone.

Monitor lets an extension user listen to the conversation at a busy extension. To implement Monitor, an extension user just calls a busy extension and dials the Monitor code. The busy extension and their caller have no indication of the intrusion. There are no tones heard and there is no visual indication that monitoring is occurring. For example, Monitor could help the supervisor of a service department. The department supervisor could listen to the questions that callers ask without disturbing the service call.

!! CAUTION !!

Monitor provides no warning tones prior to intrusion. Monitor may be interpreted as an invasion of privacy.

Conditions

Monitor uses a system Conference circuit. See *Conference* on page 142 for more.

Default Setting

Disabled

Programming Guide

Step-by-step guide for setting up Monitor

Step 1: Should an extension be able to Monitor a co-worker's call?

If yes

- In *Program 0101 - Silent Monitor* (page 619), enter Y to enable Monitor in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Silent Monitor* (page 619), enter N to disable Monitor in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions

Programming List

Program 0101 - Silent Monitor (page 619)

In an extension's Class of Service, enter Y to allow the extension to Barge In on another extension.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Attendant Position (page 37)

Since the attendant is never busy, Intercom callers cannot Monitor an attendant.

Conference (page 142)

An extension user cannot Monitor a Conference.



Privacy (page 435)



Privacy blocks Monitor attempts.

Feature Operation

To Monitor a call:

1. Call busy extension.

		Busy tone.
		N/A
2. Dial 6.

		Two beeps.
		N/A
3. Listen to the conversation in progress.

Multiple Directory Numbers

Description



DS1000/2000

|| See *Call Coverage Keys* on page 59 for more.

Description



DS1000/2000 || Available.



Callers can listen to music while waiting for their call to go through.

Music on Hold (MOH) plays music to calls on Hold, parked calls, and transferred calls. The music lets the caller know that their calls is waiting, not forgotten. Without Music on Hold, the system provides silence to these types of calls. Music on Hold is available from three sources: two internal beep tones and an external source connected to the CPU music input terminals. The external source typically connects to a customer-provided music source (such as a CD player or FM receiver).

Music on Hold requires a customer-provided music source. This source is also used by Background Music. In DS2000, you connect the music source to the CPU's 8-pin mod jack. In DS1000, you connect the music source to the Main Equipment Cabinet AUDIO jack. The music source you use must be compatible with the following specifications:

Table 6: Music Source Specifications	
Input Impedance	10K Ohms
Relative Input Level	+18 dBr (+/- dBr) at 1.0 kHz

For more on connecting a customer-provided music source, refer to the system's Hardware Manual.

With Music on Hold enabled, transferred callers can optionally listen to ringback or MOH while their call waits at the transfer destination.

Note:

In accordance with U.S. copyright law, a license may be required from the America Society of Composers, Authors and Publishers (ASCAP) or other similar organizations, if radio, television broadcasts or music other than material not in the public domain are transmitted through the Music on Hold feature of telecommunications systems. NEC Unified Solutions, Inc. hereby disclaims any liability arising out of the failure to obtain such a license.

Conditions

None

Default Setting

External MOH enabled.

Music on Hold

Programming Guide

Step-by-step guide for setting up Music on Hold

Step 1: Should the system have Music on Hold?

If yes

- In *Program 0201 - Music on Hold* (page 628), enter Y to enable Music on Hold system wide.

If no

- In *Program 0201 - Music on Hold* (page 628), enter N to disable Music on Hold system wide.

Step 2: Assign the Music on Hold source.

- In *Program 1003 - MOH Source* (page 714), assign the MOH source. The options are:
CLEAR - No MOH
1 - External at CPU terminals
2 - Tone 1 (low pitch)
3 - Tone 2 (high pitch)
4 - ACI port (currently not used)
When entering data, be sure to press VOL ▲ or VOL ▼ after entering your data. Do not press CONF or HOLD instead.

Step 3: Should transferred callers listen to MOH or ringback while waiting?

MOH

- In *Program 0201 - MOH on Transfer* (page 628), enter Y to enable Music on Hold for transferred calls.

Ringback

- In *Program 0201 - MOH on Transfer* (page 628), enter N to enable ringback for transferred calls.

Programming List

Program 0201 - Music on Hold (page 628)

Enter Y for this option to enable Music on Hold system-wide.

Program 0201 - MOH on Transfer (page 628)

Enter Y for this option to enable Music on Hold for transferred calls.

Program 1003 - MOH Source (page 714)

Assign the MOH source for the trunk. The options are:

CLEAR - No MOH

1 - External at CPU terminals

2 - Tone 1 (low pitch)

3 - Tone 2 (high pitch)

4 - ACI port (currently not used).

When entering data, be sure to press **VOL ▲** or **VOL ▼** after entering your data. Do not press **CONF** or **HOLD** instead.

Other Related Features

Background Music (page 53)

Background Music and Music on Hold share the same external music source.

Hold (page 296)

If installed, Music on Hold plays to callers on Hold.

Intercom (page 339)

Music on Hold plays to Intercom callers on Hold. Intercom callers always hear internal Tone 1.

Park (page 420)

If installed, Music on Hold plays to parked callers.

Transfer (page 558)

With Music on Hold enabled, transferred callers can optionally listen to ringback or MOH while their call waits at the transfer destination. Music on Hold will also play to transferred callers camped-on to a busy UCD Hunting Group.

Feature Operation

Music on Hold is automatic once enabled.

Names for Extensions and Trunks

Description



DS1000/2000

The new name programming method and user-entered names requires software version 03.10.08 or higher.



Names help identify trunks and extension.

Extensions and trunks can have names instead of just circuit numbers. These names show on a key-set's display when the user places or answers calls. Extension and trunk names make it easier to identify callers. The user does not have to refer to a directory when processing calls. Extension and trunk names can consist of upper and lower case letters, spaces and punctuation, and can be up to 15 characters long.

Extension names display when placing or answering Intercom calls. Trunk names display when using the following features:

- **Central Office Calls, Answering** (page 113)
- **Central Office Calls, Placing** (page 119)
- **Direct Inward Line** (page 170)
- **Direct Trunk Access** (page 191)
- **Directed Call Pickup** (page 193)
- **Last Number Redial** (page 351)
- **Line Keys** (page 356)
- **Loop Keys** (page 360)
- **Night Service / Night Ring** (page 389)
- **Park** (page 420)
- **Speed Dial** (page 481)
- **Transfer** (page 558)

Refer to *Feature Operation* below when entering names.

Conditions

None

Default Setting

- No extension names assigned (the extension's number displays instead).
- All trunk names are *LINE* followed by the trunk's number (e.g., *LINE 2* for trunk 2).
- User-entered names are available only at the attendant (Class of Service 1).

Names for Extensions and Trunks

Programming Guide

Step-by-step guide for setting up user-entered extension names

Step 1: Should an extension user be allowed to program their own name?

If yes

- In *Program 0101 - Allow Name Programming* (page 625), enter Y.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Allow Name Programming* (page 625), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 2: Should an extension with name entry capability also be allowed to enter a name for a co-worker, a Ring Group, or a UCD Hunting Group?

If yes

- In *Program 1801 - Access Level* (page 755), assign Access Level 4 or 5 to the extension.

If no

- In *Program 1801 - Access Level* (page 755), assign Access Level 1-3 to the extension.

Programming List

Program 0101 - Allow Name Programming (page 625)

Use this option to enable (Y) or disable (N) name programming at an extension. If enabled, the extension user can access name programming via their soft keys. If disabled, name programming is not allowed.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1801 - Access Level (page 755)

Extensions with Access Level 4 or 5 can enter names for co-workers Ring Groups, or UCD Hunting Groups. Extensions with Access Level 1-3 can only enter their own name.

Use name programming in the following programs:

Program 0302 - Company Name (page 639)

Enter the company name.

Program 0510 - Name (page 680)

Enter the names for the UCD Hunting Groups.

Program 0511 - Name (page 681)

Enter the names for the Ring Groups.

Program 0801 - Selectable Display Messages (page 697)

Customize Selectable Display Messages.

Names for Extensions and Trunks

Program 1001 - Trunk Extension Number (page 699)

Enter trunk names.

Program 1101 - System Speed Dial Name (page 720)

Enter System Speed Dial names.

Program 1702 - Personal Speed Dial Name (page 743)

Enter Personal Speed Dial names.

Program 1801 - Extension Name (page 754)

Enter extension names.

Program 8002 - Name (page 777)

Modify Voice Mail port names.

Program 9906 - Database Save (page 812)

In DS2000, enter names for the flash card databases.

Other Related Features

See the list under *Description* above.

Feature Operation

To program your extension's name:

If you have Access Level 4 or 5, also go to "To program a name for a co-worker's extension" below.

1. At a 22- or 34-Button Display Telephone:
Press **PGM + MORE + MORE + NAME**.
At a Super Display Telephone:
Press **PROGRAM + NAME**.
2. Follow the instructions in *Name Programming* below.
3. Press **HOLD + CONF** to exit.

To program a name for a co-worker's extension, a Ring Group, or a UCD Hunting Group:

You must have Access Level 4 or 5 to use this procedure.

1. At a 22- or 34-Button Display Telephone:
Press **PGM + MORE + MORE + NAME**.
At a Super Display Telephone:
Press **PROGRAM + NAME**.
2. When you see: **EXT:300**, enter the number of the extension you want to program + **HOLD**.
You can optionally enter a Ring Group or UCD Group master number to program the name of the associated group.
3. Follow the instructions in *Name Programming* below.
4. Press **HOLD + CONF** to exit.

Names for Extensions and Trunks

Name Programming (03.10.08 or Higher)									
Key	Press a key the indicated number of times for desired character								
	1 Time	2 Times	3 Times	4 Times	5 Times	6 Times	7 Times	8 Times	9 Times
1	&	-	/	'	1				
2	A	B	C	a	b	c	2		
3	D	E	F	d	e	f	3		
4	G	H	I	g	h	i	4		
5	J	K	L	j	k	l	5		
6	M	N	O	m	n	o	6		
7	P	Q	R	S	p	q	r	s	7
8	T	U	V	t	u	v	8		
9	W	X	Y	Z	w	x	y	z	9
0	space	:	0						
#	Not used								
*	Not used								
After selecting a letter, press a key for another letter or wait 2 seconds for the cursor to automatically advance.									
Additional Name Programming Options									
HOLD	Save name. In system programming, HOLD saves and exits name programming.								
CONF	Exit name programming without saving name.								
VOL Up	Scroll the cursor to the left.								
VOL Dn	Scroll the cursor to the right.								
MW	Put the cursor after the last entry.								
LND	Delete the character under the cursor.								
FLASH	Delete the character to the right of the cursor.								
CLEAR	Clear the entire entry.								
CHECK	Restore the previous entry,								

Names for Extensions and Trunks

Name Programming (Prior to 03.10.08)					
Press this key:	Then one of these keys to enter the character in the white cell:				
	1	2	3	4	#
1	&	- (dash)	/ (backslash)	' (apostrophe)	1
2	A	B	C		2
3	D	E	F		3
4	G	H	I		4
5	J	K	L		5
6	M	N	O		6
7	P	Q	R	S	7
8	T	U	V		8
9	W	X	Y	Z	9
0	SPACE	:			0
*					*
#					

To enter characters in lower case (e.g., **e** instead of **E**), press **MW** before pressing the key in the first shaded column. Use **LND** to backspace over (erase) any characters you want to correct.

Description



DS1000/2000 Available.



Use Night Service to reroute calls after hours.

Night Service redirects trunk calls to their night mode destination. Typically, the attendant or supervisor activates Night Service after normal working hours, when most employees are unavailable to answer calls. Trunks can ring extensions directly at Night, providing specific answering points for Night Service calls. (For example, you can program trunks to ring the security station at night.)

To have trunks ring the External Paging system (which users can answer by dialing a code), see *Trunk Ringing Over External Page* on page 410. To have the ringing call also activate the system relay, see *Page Relay Control* on page 410.

Night Service Keys

The night mode status of the system is controlled by the following 3 types of keys:

- **Night Key Assigned as a System Mode System Key**
This type of key controls the night mode status of all Key Ring trunks as well as all trunks that are Direct Inward Lines (DILs) to Ring Group master numbers. To program this type of key, see **Program 1701 - Night Key** (page 740) and **Program 1704 - Night Key** (page 749). The entry is 18 + CLEAR. Also see **Direct Inward Line** (page 170).
- **Night Key Assigned as a System Mode UCD Master Key**
This type of key controls the night mode status of all trunks terminated to UCD master numbers. It has no affect on Key Ring trunks or trunks terminated to Ring Group master numbers. To program this type of key, see *Extension Hunting* on page 239, **Program 1701 - Night Key** (page 740), and **Program 1704 - Night Key** (page 749). The entry is 18 + UCD Master Number.¹
- **An Extension's DND Key**
The DND key controls the night mode status of all trunks that are DILs to the extension. In the day, the trunk rings the extension. When the user presses DND, the DILs ring their programmed night mode destinations. Also see **Direct Inward Line** (page 170).

Basic Night Service Types

Following are the four basic types of Night Service operation for a trunk.

- **Option 1: Key Ring Day and Night**
The trunk is a Key Ring trunk during the day and at night. The trunk rings according to the settings in **Program 1805 - Ring Assignments** (page 767). An extension's Night (System Mode System) key controls the day/night mode of the trunk. Turn to *Key Ring* on page 344 for more on setting up Key Ring trunks.
- **Option 2: Key Ring During the Day, DIL at Night**
The trunk is a Key Ring trunk during the day and a DIL at night. During the day, the trunk rings according to the settings in **Program 1805 - Ring Assignments** (page 767). At night, the trunk rings the DIL destination (i.e., extension, Ring Group, UCD Hunting group or Voice

¹ Do not use this option if you want trunks to overflow to Voice Mail. See the programming steps on page 345 instead.

Night Service / Night Ring

Mail). An extension's Night (System Mode System) key controls the day/night mode of the trunk. Turn to *Key Ring* on page 344 for more on setting up Key Ring trunks. Turn to *Direct Inward Line* on page 170 for more on setting up Direct Inward Lines.

- **Option 3: DIL During the Day, Key Ring at Night**

The trunk is a DIL during the day and a Key Ring trunk at night. The trunk rings the DIL destination during the day and rings according to the settings in **Program 1805 - Ring Assignments** (page 767) at night. The DIL destination's DND key controls the night mode of the trunk. Turn to *Direct Inward Line* on page 170 for more on setting up Direct Inward Lines. Turn to *Key Ring* on page 344 for more on setting up Key Ring trunks.

- **Option 4: DIL Day and Night**

The trunk is a DIL during the day and at night. The DIL destination's DND key controls the night mode of the trunk. Turn to *Direct Inward Line* on page 170 for more on setting up Direct Inward Lines.

At the attendant (extension 300 by default), key 11 is a Night (System Mode System) key. This allows the attendant to activate the Night Mode system-wide for Key Ring trunks and trunks terminated to Ring Group master numbers.

Conditions

None

Default Setting

- Trunks 1-8 ring extensions on line keys 1-8 in the day and at night.
- At attendant (extension 300 by default), key 11 is a Night (System Mode System) key. This allows the attendant to activate the Night Mode system-wide for Key Ring trunks and trunks terminated to Ring Group master numbers.

Programming Guide

Step-by-step guide for setting up Night Service / Night Ring

Step 1: Should extension be able to put Key Ring trunks into the night mode?

If yes

- In *Program 0101 - Activate Night Mode* (page 620), enter Y to allow extensions with the assigned Class of Service to put the system in the night mode. This capability is normally reserved for attendants.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- To put a Night (System Mode System) key on a keyset:
In *Program 1701 - Night Key* (page 740), **assign a key as a System Mode System key (code 18 + CLEAR)**.
- To put a Night (System Mode system) key on a DSS Console:
In *Program 1704 - Night Key* (page 749), **assign a key as a System Mode System key (code 18 + CLEAR)**.

If no

- In *Program 0101 - Activate Night Mode* (page 620), enter N to prevent extensions with the assigned Class of Service from putting the system in the night mode.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- In *Program 1701 - Night Key* (page 740), and *Program 1704 - Night Key* (page 749), do not assign Night keys (code 18).

Step 2: Do you want Key Ring trunks to ring extensions at night?

If yes

- In *Program 1805 - Ring Assignment* (page 767), for each trunk at each extension assign option 2 (ringing day and night), option 3 (night ring only) or option 4 (delay ring day and night).
- *Program 1803 - Extension Line Access Assignments* (page 763), for each trunk at each extension be sure to assign access option 1 (incoming only) or 2 (outgoing only).

If no

- In *Program 1805 - Ring Assignment* (page 767), for each trunk at each extension do not assign option 2 (ringing day and night), option 3 (night ring only) or option 4 (delay ring day and night).

Night Service / Night Ring

Programming List

- Program 0101 - Activate Night Mode** (page 620)
Enter Y to allow an extension to activate the Night Mode for Key Ring trunks.
- Program 1701 - Night Key** (page 740)
Assign a programmable key as a Night (System Mode System) key (code 18 + CLEAR).
Pressing the Night Key puts trunks terminated to Key Ring and Ring Group master numbers during the day into the night mode.
- Program 1704 - Night Key** (page 749)
Assign a DSS Console key as a Night (System Mode System) key (code 18 + CLEAR). Pressing the Night Key puts trunks terminated to Key Ring and Ring Group master numbers during the day into the night mode.
- Program 1801 - Extension Class of Service Assignment** (page 755)
Assign Class of Service to extensions.
- Program 1803 - Extension Line Access Assignments** (page 763)
For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).
- Program 1805 - Ring Assignments** (page 767)
Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features



- Direct Inward Line** (page 170)
- The extension to which the DIL is terminated controls the night mode of the DIL.
 - If a DIL is terminated to the Voice Mail master number, a System Mode key (code 18 + the Voice Mail number) controls the night mode status of the DIL.
- Direct Station Selection (DSS) Console** (page 180)
A DSS Console with a Night (System Mode System) key can put the system in the night mode.
- Do Not Disturb** (page 220)
A DIL destination activates the night mode for the DIL when they press DND.
- Group Ring** (page 279)
The Night (System Mode System) key sets the day/night status of a DIL terminated to a Ring Group.
- Paging** (page 409)
To have trunks ring the External Paging system (which users can answer by dialing a code), see *Trunk Ringing Over External Page* on page 410. To have the ringing call also activate the system relay, see *Page Relay Control* on page 410

Feature Operation

To activate Night Service (i.e., put Key Ring trunks and trunks terminated to Ring Group master numbers into the night mode):

This capability is normally restricted to attendants and supervisors.

1. Do not lift the handset.
2. Press the Night (System Mode System) key.



 N/A.
 Night key on. You display shows: *SYSTEM IN NIGHT MODE*

To deactivate Night Service (i.e., put Key Ring trunks into the day mode):

 N/A.
 Night key on.

This capability is normally restricted to attendants and supervisors.



1. Do not lift the handset.
2. Press the Night (System Mode System) key.

 N/A.
 Night key goes out.

To answer a call that rings a line or loop key at night:

 Trunk ring.
 Line or loop key flashing red for key ring call.
Line key flashing green for DIL.

1. Lift handset.
*If you have Ringing Line Preference, lifting the handset answers the call.
If you have Automatic Handsfree, you can press the line or loop key without first lifting the handset.*
2. Press flashing line or loop key.

 Conversation with caller.
 Line or loop key on.

To answer the call that is ringing over the Paging speakers:

See Trunk Ringing Over External Page on page 410 and Page Relay Control on page 410 for more on how to set this up.

1. Lift handset or press **SPK**.
2. Dial ***0**.
3. Converse with the caller.

*While talking to a Door Box caller, you can press the **FLASH** key or the **OPEN** and **RLS** soft keys to control the Door Box relays.*

Off-Hook Signaling

Description



DS1000/2000 || Available.



Off-Hook Signaling helps important callers get through.

When a user is busy on a call, Off-Hook Signaling indicates that another caller is trying to get through. Off-Hook Signaling helps important callers get through, without waiting in line for the called extension to become free. After the user hears the off-hook signal, they can use other system features (such as Hold or Park) to process their active call and then answer the waiting call.

Off-Hook Signaling for Trunk Calls

While a keyset user is on a call, Off-Hook Signaling for trunk calls can be:

- While on a handset call, a flashing green Ring/Message lamp, line/loop key, and muted off-hook ringing. (While Off-Hook Signaling ringing is occurring, use VOL ▲ and VOL ▼ to adjust the volume of ringing.)
OR
- While on a handset or Handsfree call, a flashing green line/loop key and Camp-On tones.

The following chart shows when the two types of Off-Hook Signaling occur. Note that Camp-On tones occur for an extension when they are the exclusive recipient of the call (such as a DIL).

	Off-Hook Ringing ¹	Camp-On Tones ²
Key Ring	Yes	No
Transferred Trunk Call	Yes	Yes
Direct Inward Line	Yes	Yes
Transfer from Voice Mail (UTRF)	Yes	Yes
Call Coverage Key	Yes	No
Group Call Pickup Key	Yes	No

¹ For Off-Hook ringing, **1802 - Off-Hook Signaling for CO Calls = 2.**
² For Camp-On tones, **1802 - Off-Hook Signaling for CO Calls = 1.**

Off-Hook Signaling for Intercom Calls

While an extension user is on a handset or Handsfree call, they can receive Camp-On tones from a co-worker that called them and dialed 2 to Camp-On. Turn to *Call Waiting / Camp-On* on page 88 for more on how to set this up. Off-hook ringing for Intercom calls is not available.

Off-Hook Signaling for Hotline Calls

While an extension user is on a handset call, they can receive Camp-On tones in the telephone handset when their Hotline Partner calls them by pressing their Hotline key. This is the default setting.

Conditions

None

Default Setting

- Off-Hook Signaling for trunk calls is set for Off-Hook Ringing (option 2) by default. While busy on a call, the extension will receive Off-Hook Ringing for outside calls that normally ring the phone. This includes:
 - Key Ring Calls
 - Transferred Trunk Calls
 - Direct Inward Lines
 - UTRF Transfers from Voice Mail
 - Call Coverage Keys
 - Group Call Pickup Keys
- Off-Hook Signaling for Intercom calls is Camp-On tones.
- Off-Hook Signaling for Intercom calls from the Hotline partner is Camp-On tones.

Off-Hook Signaling

Programming Guide

Step-by-step guide for setting up Off-Hook Signaling

Step 1: When an Intercom call is waiting, should extension hear Camp-On beeps, Voice Over, or no Off-Hook Signaling?

Camp-On



- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 758), enter 1.

Voice Over



- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 758), enter 3.

No Signals



- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 758), enter 0.

Step 2: When an Intercom call from their Hotline partner's Hotline key is waiting, should extension hear Camp-On beeps, Voice Over, or no Off-Hook Signaling?

Camp-On



- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), enter 1.

Voice Over



- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), enter 3.

No Signals



- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), enter 0.

Step 3: When an incoming trunk call is waiting, should extension hear Camp-On beeps, off-hook ringing, or no Off-Hook Signaling?

Camp-On



- In *Program 1802 - Off-Hook Signaling for CO Calls* (page 759), enter 1.

Ringing



- In *Program 1802 - Off-Hook Signaling for CO Calls* (page 759), enter 2.

No Signals



- In *Program 1802 - Off-Hook Signaling for CO Calls* (page 759), enter 0.

Programming List

Program 1802 - Off-Hook Signaling for Intercom Calls (page 758)

- Set an extension's Off-Hook Signaling options for incoming Intercom calls. The options are 0 (no Off-Hook Signaling), 1 (Call Wait beeps), and 3 (Voice Over).
- Turn to *Call Waiting / Camp-On* on page 88 for more on setting up Camp On.
- Turn to *Voice Over* on page 600 for more on setting up Voice Over.

Program 1802 - Off-Hook Signaling for Hotline Partner (page 759)

- Set an extension's Off-Hook Signaling options for incoming Intercom calls from their Hotline partner that were placed using the Hotline key. The options are 0 (no Off-Hook Signaling), 1 (Call Wait beeps), or 3 (Voice Over).
- Note that incoming Intercom calls *dialed* from the Hotline partner follow the *Off-Hook Signaling for Intercom Calls* option above.
- Turn to *Voice Over* on page 600 for more on setting up Voice Over.

Program 1802 - Off-Hook Signaling for CO Calls (page 759)

Set an extension's Off-Hook Signaling options for incoming trunk calls. The options are 0 (no Off-Hook Signaling), 1 (Camp-On tones) and 2 (off-hook ringing).

Other Related Features

Attendant Call Queuing (page 35)

The Operator Call Key does not activate off-hook signaling.

Caller ID (page 95)

An extension programmed to receive Camp On tones or Off-Hook Ringing from a waiting call will also receive Second Call Caller ID.

Conference (page 142)

An extension user can Conference their active call with the waiting call.

Direct Inward Line (page 170)

DILs can initiate Off-Hook Signaling beeps.

Headset Compatibility (page 291)

Turn to *Off-Hook Signaling and Headsets* on page 292 for more on how Off-Hook Signaling interacts with headsets.

Hold (page 296)

An extension user can place their current call on Hold and answer the waiting call.

Hotline (page 302)

Hotline activates Off-Hook Signaling.

Key Ring (page 344)

Off-Hook Signaling can occur for Key Ring calls.

Park (page 420)

An extension user can Park their current call and answer the waiting call.

Split (Alternate) (page 493)

An extension user can alternate between their active call and their waiting call.

Transfer (page 558)


An extension user can Transfer their current call to a co-worker or Voice Mail and then answer the waiting call. In addition, transferred calls can initiate Off-Hook Signaling.

Voice Over (page 600)

Voice Over also lets a user get through to a keyset extension user busy on a handset call. The busy keyset extension user hears an alert tone followed by the voice of the interrupting party.

Off-Hook Signaling

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Off Hook Signaling	#OHR	#OHS + Select mode (C =Outside line, D =DSS, I =ICM) + Select option (see below) + SPK to exit. <i>Outside line options:</i> C =Camp On tone, O =Off Hook Ringing, 0 = None <i>Intercom options:</i> C =Camp On, O =Off Hook Ringing, V =Voice Over, 0 = None <i>DSS/Hotline Options:</i> C =Camp On, O =Off Hook Ringing, 0 = None	3-5

Off-Hook Signaling is automatic for camped-on Intercom calls, Direct Inward Lines and transferred trunk calls.

Off-Premise Extensions / On-Premise SLT Extensions

Description



DS1000/2000 Available.



Connect analog devices such as single line telephones, fax machines and voice mail systems to the system. *The 2-OPX Module is no longer available for purchase, but you may find it in existing installations.*

The system is compatible with 500 type (dial pulse) and 2500 type (DTMF) analog telephone devices. This includes telco OPX circuits, on-premise single line telephones (SLTs), fax machines, modems, and voice mail ports.

- In DS1000:
 - On-premise SLTs connect to dedicated analog ports 316-323 in the main equipment cabinet or 2-OPX Modules.
 - Off-premise SLTs can connect only to 2-OPX Modules.
- In DS2000:
 - On-premise SLTs connect to 2-OPX Modules or ASTU PCBs.
 - Off-premise SLTs can connect only to 2-OPX Modules.

DS2000 ASTU PCBs are available in two models, providing 4 and 8 ports, respectively. Each ASTU port provides power and ring voltage for the connected SLT. ASTU PCBs use system DTMF receivers. The CPU provides 10 DTMF receivers that are shared by all devices connected to ASTU ports. Both DS1000 and DS2000 support FSK Message Waiting lamps. The current versions of DS2000 ASTU PCBs also provide support for high voltage Message Waiting lamps – while DS1000 does not.

Each 2-OPX Module (P/N 92177A) provides two OPX ports. The first (primary) 2-OPX extension number is the same as the port's extension number. The second (secondary) 2-OPX extension number is set up in programming. In addition, the 2-OPX Module has its own DTMF receivers (one for each port), internal ring generator and power supply to provide the connected SLT with power and ring voltage. The 2-OPX Module does not provide the signaling required to light SLT Message Waiting lamps.

Ringling For Incoming Calls

On- and Off-Premise single line extensions ring according to the settings in **Program 1805 - Ring Assignments** (page 767). It is not necessary to assign single line sets to Ring Groups to make them ring for incoming calls; they follow Key Ring instead. In DS2000 by default, extensions in the first DSTU PCB (300-315) ring (option 2) for trunks 1-12 and flash (option 1) for trunks 13-64. All other extensions have lamp only for all trunks. In DS1000 by default, all extensions (including single line sets) have immediate ring for all trunks. Refer to **Ringer Equivalence Number (REN) Considerations** below.

Ringer Equivalence Number (REN) Considerations

DS1000

Single line telephones assigned to Key Ring or the same Ring Group will ring simultaneously. This is also true for single line telephones connected to the same port. Since the Ringer Equivalence Numbers of connected single line telephones are cumulative, you must do the following:

- Add up the RENs of all connected single line telephones.
- Be sure the total REN does not exceed 4 on any single port *or* system-wide.

Note that a REN of 1 is normal for an industry standard 2500 set with electromechanical ringer.

Off-Premise Extensions / On-Premise SLT Extensions

Many phones with electronic ringers have significantly lower RENs. Check the label on the bottom of each single line telephone for the

DS2000

Single line telephones assigned to Key Ring or the same Ring Group ring in pairs according to their ASTU PCB port assignment. For example, ports 1 and 2 ring together, followed by 3 and 4, 5 and 6, and finally 7 and 8. If the system has more than one ASTU PCB installed, the respective port pairs ring simultaneously on each card (e.g., ports 1 and 2 ring simultaneously on each PCB). The ASTU provides the capability to support this ringing arrangement, and REN calculations are not required. In DS2000, there *is not* a REN limitation.

Conditions

- 2-OPX Module circuits meet the requirements of EIA Specification RS-464-A for OPS Class C (loop resistance to 3,300 ohms, loop current = 16 mA or greater). The 2-OPX Module provides far end loop disconnect supervision for the connected circuits.
- Dial Pulse (500 type) single line telephones cannot access any features that require the user to dial # or *.
- The system provides a pool of 10 DTMF receivers that are dynamically allocated as required.

Default Setting

- The first (primary) 2-OPX channel auto-IDs. The extension number and is the same as the port's extension number.
- The second (secondary) 2-OPX channel does not auto-ID and must be set up in programming. See the Programming List below more.

Off-Premise Extensions / On-Premise SLT Extensions

Programming Guide

Step-by-step guide for setting up Off-Premise Extensions / On-Premise SLT Extensions

Step 1: Set up the secondary channel of each 2-OPX Module.

- In *Programs 9902 - Set Up Stations (DS1000)* on page 793 and *9902 - Set Up Stations (DS2000)* on page 796, set up the secondary channel of each 2-OPX Module.
- *The primary channel of the 2-OPX Module auto-IDs when the module is plugged in.*

Step 2: Should the single line extension follow the ringing pattern of an incoming trunk?

If yes

- In *Program 0101 - Single Ring for Single Line Sets* (page 619), enter N to disable Single Ring for Single Line Sets.

If no

- In *Program 0101 - Single Ring for Single Line Sets* (page 619), enter Y to enable Single Ring for Single Line Sets.

Step 3: Does the device connected to the analog port require a loop disconnect signal (i.e., drop pulse)?

If yes

- In *Program 0101 - SLT Loop Disconnect* (page 622), enable (Y) the ability of the system to send a drop pulse to single line ports with this Class of Service.
- In *Program 0403 - Drop Pulse Send* (page 656), set the duration of the drop pulse sent to single line ports.
- In *Program 1801 - Extension Circuit Type* (page 754), assign Class of Service to extensions.

If no

- In *Program 0101 - SLT Loop Disconnect* (page 622), disable (N) the ability of the system to send a drop pulse to single line ports with this Class of Service.
- In *Program 1801 - Extension Circuit Type* (page 754), assign Class of Service to extensions.

Step 4: Is the DTMF detection from the analog port correct?

If yes

- In *Program 0403 - DTMF Detect* (page 656), do not change the DTMF Detect interval.

If no

- In *Program 0403 - DTMF Detect* (page 656), change the DTMF Detect interval to meet the requirements of the connected device.

Off-Premise Extensions / On-Premise SLT Extensions

Programming List

Program 0101 - Single Ring for Single Line Sets (page 619)

Use this option to determine the type of ringing at analog single line extensions. If enabled (Y), analog single line extensions always receive single ringing for trunk calls. (Certain analog single line devices connected to the system may require this type of ringing.) If disabled (N), trunk ringing at analog single line extensions follows the ringing pattern of the trunk. For example, if a trunk is ringing the system with two ring bursts, the single line extensions will follow the same ringing pattern.

Program 0101 - SLT Loop Disconnect (page 622)

Use this option to enable (Y) or disable (N) the ability of the system to send a loop supervision disconnect signal (i.e., drop pulse) to single line ports. Set this option for compatibility with the connected SLT device. (This option is always disabled for Voice Mail ports.)

Program 0403 - Drop Pulse Send (page 656)

Use this timer to set the duration of the ASTU PCB drop pulse. This pulse is sent to the connected analog device to initiate a disconnect.

Program 0403 - DTMF Detect (page 656)

Set the DTMF detection threshold for single line (analog device) ports. If the analog device sends a DTMF signal longer than this interval, the system recognizes it as a valid DTMF tone and decodes it. If the DTMF signal is equal to or less than this interval, the system ignores it.

Program 9902 - Set Up Stations (DS1000) (page 793) and **Program 9902 - Set Up Stations (DS2000)** (page 796)

Set up the secondary channel of each connected 2-OPX Module. The primary channel auto-IDs when the 2-OPX Module is plugged in.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Background Music (page 53)

Background Music is not available to On- and Off-Premise extensions.

Conference (page 142)

On- and off-premise SLT extensions can use Conference.

Do Not Disturb (page 220)

On- and Off-Premise extensions cannot use DND.

Flash (page 264)

The Class of Service option **Program 0101 - Flash for Single Line Sets** (page 619) allows you to enable or disable hookflash for analog single line extensions and 2-OPX Modules.

Handsfree and Handsfree Answerback (page 287)

On- and Off-Premise Extensions do not have Handsfree and Handsfree Answerback capability.

Headset Compatibility (page 291)

On- and Off-Premise Extensions do not have headset capability.

Intercom (page 339)

All Intercom calls to On- and Off-Premise Extensions ring.

Paging (page 409)

On- and Off-Premise Extensions can make Paging announcements, but cannot receive Paging announcements.

Prime Line Preference (page 431)

On- and off-premise extensions can use Prime Line Preference.

Save Number Dialed (page 468)

Save Number Dialed is not available to SLTs.

Single Line Telephones (page 479)

Single line telephones connect to either 2-OPX Modules or ASTU PCBs. On-premise single line telephones have the same capability as Off-Premise Extensions.

Off-Premise Extensions / On-Premise SLT Extensions

Feature Operation

Barge In (Intrusion) (page 56)

1. Call busy extension.
OR
Dial 101 for busy trunk (i.e., using Direct Trunk Access).
OR
Dial #901 for busy trunk (i.e., using Line Dial-up).
OR
Dial Trunk Group access code (e.g., 9).
2. Dial 4.
3. Join the conversation in progress.

Call Forwarding (page 63)

1. Lift handset + Dial ***3** + Dial Call Forwarding type:
0 = Cancel your extension's Call Forwarding
2 = Call Forwarding Busy/No Answer
4 = Call Forwarding Immediate
6 = Call Forwarding No Answer
2. Dial destination extension, **0** for your operator, or Voice Mail master number.
3. Dial **2** to forward all calls,
OR
Dial **8** to forward just outside calls.
4. Hang up.

Call Waiting / Camp-On (page 88)

1. Call busy extension + Dial **2** + Do not hang up.
If you hang up, the system converts your Camp-On to a Callback.
2. Speak to your co-worker when they answer their Camp-On ring.

Callback (page 92)

1. Call busy extension + Dial **2** and hang up.
Stay on the line without hanging up if you want to Camp-On instead.
2. When Callback rings your phone, lift handset to answer.
3. Speak to your co-worker when call goes through.

Central Office Calls, Answering (page 113)

1. When your telephone rings, lift the handset.

Central Office Calls, Placing (page 119)

Line Dial-Up

1. Lift handset + Dial **#9** followed by the trunk number (e.g., #901 for trunk 1).

Direct Trunk Access

1. Dial **1** plus the trunk number (e.g., 101 for trunk 1) + Dial outside number.

Trunk Group Access

1. Lift handset + Dial trunk group code (9 or 90-98) + Dial outside number.

Off-Premise Extensions / On-Premise SLT Extensions

Conference (page 142)

1. Establish Intercom or trunk call.
A single line telephone user can place a call and immediately go to step 2 to add another party into the Conference.
2. Hookflash and dial extension or trunk you want to add.
3. Hookflash and dial #10 to set up Conference.
If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.
4. Repeat steps 2 and 3 to add additional parties to your Conference.

Direct Trunk Access (page 191)

1. Dial **1** plus the trunk number (e.g., 101 for trunk 1) + Dial outside number.

Directed Call Pickup (page 193)

1. Lift handset + Dial * * + Dial number of extension whose call you want to intercept.
To intercept a call ringing an attendant, dial the attendant's extension number (e.g., 300). Do not dial 0 or 01-04.

Door Box (page 226)

To place a call to the Door Box:

1. Lift handset + dial the Door Box extension number.

To answer the Door Box ringing:

1. Lift handset.
Door Box chimes are not available at single line telephones.

To control the relay which in turn controls the Door Box strike:

1. Place or answer Door Box call.
2. To open the relay, hookflash.
3. To close the relay, hookflash again.

Flash (page 264)

1. Place or answer trunk call.
2. Hookflash and dial #3.
When you hear CO/PBX/Centrex dial tone, dial a new call or use other features provided externally by the connected service.

Forced Trunk Disconnect (page 271)

1. Lift handset + Dial the trunk's Direct Trunk Access code (e.g., 101 for trunk 1).
2. Dial # to disconnect the line.
You hear Intercom dial tone. To place a call on the trunk, dial a trunk access code and then dial the number.

Group Call Pickup (page 273)

1. Lift handset + Dial *#.

Off-Premise Extensions / On-Premise SLT Extensions

Hold (page 296)

Retrieve trunk on System (Regular) Hold at a Co-worker's Extension

1. From Intercom dial tone, dial *4.
2. Dial the number of the trunk that is on Hold (e.g., 01 for trunk 1).

Place on Exclusive Hold

1. Hookflash + Dial *7.
2. Hang up.
 - If the call is left on Exclusive Hold too long, it will recall to you.
 - If you hang up without first dialing *7, the call will recall immediately.
 - If you previously placed a call on Exclusive Hold or have a Camped-On call waiting, dialing *7 will answer the waiting call. See *Split* below for more.

Retrieve from Exclusive Hold

1. Lift the handset and dial *7 (or hookflash).

Intercom (page 339)

Place

1. Lift handset + Dial extension number (300-427 in DS2000, 300-333 in DS1000).

To call the operator, dial the operator's extension number or dial 0 or 01-04 (depending on how your system is set up).

If your call voice-announces the destination, you can dial 1 to force the call to ring.

Answer

1. Lift handset.

Last Number Redial (page 351)

1. Lift handset + Dial #5.

The system automatically selects a trunk from the same group as your original call.

If you hear busy tone, you can dial 2 to queue for a trunk to become free. If you hang up, the system converts the queue to a Trunk Callback.

Meet-Me Conference (page 365)

Setting Up

1. Page parties and announce the Meet-Me Conference code (#11 or #12).

See Paging on page 409 for more on how to page your co-workers.
2. Hang up + Lift Handset + Dial announced Meet-Me Conference code (#11 or #12).

Your co-worker's must join the telephone meeting within the Meet Me Conference time.

Joining

1. Listen for paged invitation to join the Conference + Dial announced Meet-Me Conference code (#11 or #12).

You can join the telephone meeting within the Meet Me Conference time.

Message Waiting (page 368)

Leaving a Message Waiting

1. Place Intercom call to co-worker.

The extension you call can be unanswered, busy or in Do Not Disturb.
2. Dial 8 + Hang up.

MW flashes fast at the extension you call.

Off-Premise Extensions / On-Premise SLT Extensions

Answering a Message Waiting

The system currently provides no indication that an on- or off-premise extension has messages waiting.

1. Lift handset + Dial ***8**.

Night Service / Night Ring (page 389)

1. Dial ** + UNA code (01-04).

Dial the lowest code first (e.g., 01). If you hear busy, try the next highest code (e.g., 02).

Paging (page 409)

SLTs cannot receive Paging announcements.

1. Lift handset + Dial ***1** + Dial Paging zone (1-7 or 0 for all call).

Park (page 420)

Park a Call

1. Place or answer call + Hookflash + Dial ***** + Dial orbit (60-69 for system orbits, *300-*427 for Personal Park in DS2000, *300-*333 for Personal Park in DS1000)

Retrieve a Parked Call

1. Lift handset + Dial ***** + Dial orbit (60-69 for system orbits, *300-*427 for Personal Park in DS2000, *300-*333 for Personal Park in DS1000)

Pulse to Tone Conversion (page 453)

Must be switched manually from the telephone. The system does not provide Pulse to Tone Conversion for SLTs.

Removing Trunks and Extensions From Service (page 457)

1. Lift handset + Dial **#40** + Dial trunk (101-164 in DS2000 or 101-106 in DS1000) or extension (300-427 in DS2000 or 300-333 in DS1000) you want to remove or return to service + Dial **4** to return or **6** to remove. Hang up.

Speed Dial (page 481)

To dial a Speed Dial Number:

1. Lift handset and dial #.
2. Dial the Personal Speed Dial bin number (701-720).
OR
Dial the System Speed Dial bin number (normally 200-299).

The stored number dials out.

Split (Alternate) (page 493)

A single line telephone can Split (alternate) between their current call and waiting calls. The waiting calls can include a call you previously placed on Exclusive Hold or camped-on calls.

To Split (Alternate) between your current call and a waiting call:

1. Hookflash + Dial ***7**.
 - You are connected to your camped-on call (if any) or the call that has been on Hold the longest.
 - Repeat this procedure to cycle through all your waiting calls (from oldest to newest) and return to your first call.

Off-Premise Extensions / On-Premise SLT Extensions

Tandem Trunking / Unsupervised Conference (page 538)

1. Establish trunk call (e.g., lift handset, dial 9, and dial outside number).
2. Hookflash and dial another trunk call.
3. Hookflash and dial #10 to set up Conference.
4. Hang up.

If the outside parties disconnect, the trunks you selected do not have Tandem Trunking capability.

Transfer (page 558)

To Transfer your call:

1. Place or answer call.
2. Hookflash + Dial extension to which you want to transfer the call.
To Transfer the call to the Voice Mail Automated Attendant, dial the Voice Mail master number.
3. To Transfer the call unscreened, hang up.

OR

To screen the Transfer, wait for the called party to answer before hanging up.

To return to the call if the calling party doesn't want the Transfer:

1. Hang up + Lift handset + Dial ** and co-worker's extension number.
Do not hookflash or the call will go on Hold at the destination extension.

To receive a Transfer (if you get an intercom call announcing it):

1. Stay on the line.
The Transfer goes through when the calling party hangs up.

Voice Mail (page 580)

1. Lift handset + Dial *8.

One-Touch Keys

Description



DS1000/2000

|| Available for Personal Speed Dial. Refer to *Speed Dial* on page 481.

Description



DS1000/2000

- Ring Over Page Volume Adjustment requires system software version 03.20.07 or higher.



Use Paging to broadcast announcements or quickly locate co-workers.

Paging lets extension users broadcast announcements to other keyset users and to external Paging speakers. Paging allows a user to locate a co-worker or make an announcement without calling each extension individually. There are two types of Paging: Internal Paging and External Paging.

Internal Paging

Internal Paging allows extension users to broadcast announcements into 7 internal Paging Zones and All Call (all zone). When a user makes a zone page, the announcement broadcasts to all extensions assigned to the specified zone. If the user makes an All Call announcement, the announcement simultaneously broadcasts to extensions in all zones. All Call Paging automatically overrides any zone pages already in progress. A system timer can optionally limit the duration of Paging announcements.

To simplify Paging access, a keyset can have Programmable Function Keys assigned as Page keys.

Paging Key Busy Lamp Indications	
When the key is:	The zone is:
Off	Idle
On (red)	A co-worker is Paging into the assigned zone
On (green)	The extension user is Paging into the assigned zone.

External Paging

When a user pages into Internal All Call Page or Internal page Zone 1, the system simultaneously broadcasts the announcement into the External Paging Zone. In DS2000, access to the external zone is via pins in the CPU's 8-pin mod jack. In DS1000, access to the external zone is via the AUDIO jack in the main equipment cabinet. Refer to the system's *Hardware Manual* for additional installation details.

When connecting External Paging equipment, be sure to adhere to the following requirements:

Output Impedance	600 Ohms @ 1 KHz
Output Level	0 dBr at 1.0 KHz

Page Relay Control

Page Relay Control allows an announcement broadcast into a Paging zone to activate a system relay. This relay is typically used to activate a customer-provided Paging amplifier. In DS2000, there is a single relay on the CPRU PCB. DS1000 has 2 relays: one in the DOOR1 jack and another in the DOOR2 jack. In either system, you can assign these relays for Door Box strike control or Page Relay Control, but not both. ***If the system relay is programmed for Page Relay Control, and an extension or trunk is set up to ring over External Paging, the relay will activate when the extension or trunk rings.***

The equipment you connect to a system relay must be compatible with the following specifications. Refer to your system's Hardware Manual for more on connecting to the system relay contacts.

Table 8: Relay Contact Specifications	
DS1000	
Contact Configuration:	Normally open
Maximum Load:	0.5A @ 120 VAC 1A @ 24 VDC
Maximum Initial Contact Resistance	100 mOhms
D2000	
Contact Configuration:	Normally open
Maximum Load:	60 mA @ 30 VDC 10 mA @ 90 VDC
Maximum Initial Contact Resistance	50 mOhms

Trunk Ringing Over External Page

Trunk ringing can optionally broadcast over External Paging speakers. For each trunk, the Paging speakers can broadcast ringing for all calls ringing the trunk, for calls ringing only at night, or for delay ring calls. While a trunk rings External Paging, any extension user can dial a code (**ICM + *0**) to pick up the call. ***If the system relay is programmed for Page Relay Control, and the trunk is set up to ring over External Paging, the relay will activate when the trunk rings.***

If Door Box chimes, ringing, and Background Music are **all** programmed to output over External Paging, the system uses the following broadcast priority:

- Paging
- Door Box chimes
- Ringing
- Background Music

Note that External Paging can broadcast either extension ringing or trunk ringing, not both. In addition, External Paging requires additional customer-provided equipment. Refer to the *Hardware Manual* that came with your system for more.

Intercom Ring Over External Page

An extension's ringing can optionally broadcast over External Paging. If enabled, **any** type of call that rings the extension will broadcast over the Paging speakers. While an Intercom call rings External Paging, any extension user can dial a code (**ICM + *0**) to pick up the call. ***If the system relay is programmed for Page Relay Control, and an extension is set up to ring over External Paging, the relay will activate when the extension rings.***

Door Chime Over External Page

Door Box chimes can optionally broadcast over External Paging. While Door Box chimes broadcast over External Paging, any extension user can dial a code (**ICM + *0**) to answer the Door Box. After answering, a keyset user can press a soft key or **FLASH** to control the Door Box relay.

Background Music Over External Page

Background Music (BGM) can optionally play over the External Paging speakers while Paging is idle. BGM will automatically turn off while Paging, ringing or Door Box chimes broadcast from the external zone, and restart when the external zone again becomes idle.

Ring Over Page Volume Adjustment

You can adjust the volume of ringing over the External Paging system. There are three volume adjustments: low (5), medium (6), and high (4). This adjustment does not affect the volume of Background Music or Door Chimes.

Conditions

None

Default Setting

- All Call and Zone Paging allowed.
- Ringing, Door Box chimes, and Background Music do not broadcast over External Paging.

Paging

Programming Guide

Step-by-step guide for setting up Paging

Step 1: Should extension be able to receive Paging announcements?

If yes

- In *Program 1807 - Paging Through Speaker* (page 771), enter Y to allow the extension to receive paging announcements.
- In *Program 1802 - Page Zone Member* (page 760), assign extension to the zone for which it should receive page announcements (1-7, 0 for All Call only).

If no

- In *Program 1807 - Paging Through Speaker* (page 771), enter N to prevent extension from receiving paging announcements.

Step 2: Should extension be able to make (broadcast) Paging announcements?

If yes

- In *Program 0101 - Initiate All Call Page* (page 618), enter Y to allow extensions with the assigned Class of Service to make All Call Paging announcements.
- In *Program 0101 - Access Page Zone 1* (page 618), through *Program 0101 - Access Page Zone 7* (page 619), enter Y to allow extensions with the assigned Class of Service to make announcements into zones 1-7.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no

- In *Program 0101 - Initiate All Call Page* (page 618), enter N to prevent extensions with the assigned Class of Service from making All Call Paging announcements.
- In *Program 0101 - Access Page Zone 1* (page 618), through *Program 0101 - Access Page Zone 7* (page 619), enter N to prevent extensions with the assigned Class of Service from making announcements into zones 1-7.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step-by-step guide for setting up Paging

Step 3: When a user makes a Paging announcement, is the length of time the system allows to make the page announcement adequate?

If yes

- In *Program 0401 - Page Duration* (page 643), leave the Page Duration interval at its currently assigned value.

If no

- In *Program 0401 - Page Duration* (page 643), change the Page Duration interval to meet the site requirements.

Step 4: Should extension have one-touch Paging?

If yes

- In *Program 1701 - Page Zone Key* (page 739), assign a programmable function key as a Page Zone key (code 13 + zones 1-7 or 0 for All Call).

If no

- In *Program 1701 - Page Zone Key* (page 739), do not assign a programmable function key as a Page Zone key (code 13).

Step 5: Should DSS Console have one-touch Paging?

If yes

- In *Program 1704 - Page Zone Key* (page 748), assign a programmable function key as a Page Zone key (code 13 + zones 1-7 or 0 for All Call).

If no

- In *Program 1704 - Park Orbit Key* (page 747), do not assign a programmable function key as a Page Zone key (code 13).

Step 6: In DS2000, should a Paging announcement activate the CPRU relay?

If yes

- In *Program 0201 - CPRU Relay* (page 630), enter 2 to assign the CPRU relay for Page control.
- In *Program 0201 - CPRU Relay Page Zone Assignment* (page 630), enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

If no

- In *Program 0201 - CPRU Relay* (page 630), enter 0 to disable the CPRU PCB relay for Page control.

Paging

Step-by-step guide for setting up Paging

Step 7: In DS1000, should a Paging announcement activate the DOOR1 or DOOR2 relay?

If yes

For the DOOR1 relay:

- In *Program 0201 - DOOR1 Relay* (page 630), enter 2 to assign the DOOR1 relay for Page control.
- In *Program 0201 - DOOR1 Relay Page Zone Assignment* (page 630), enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

For the DOOR2 relay:

- In *Program 0201 - DOOR2 Relay* (page 630), enter 2 to assign the DOOR2 relay for Page control.
- In *Program 0201 - DOOR2 Relay Page Zone Assignment* (page 630), enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

If no

- In *Program 0201 - CPRU Relay* (page 630), enter 0 to disable the CPRU PCB relay for Page control.

Step 8: Should Intercom ringing broadcast over External Paging?

If yes

- In *Program 0202 - External Page Ring Source* (page 632), enter 3 to enable Intercom ringing over Paging.
- In *Program 0202 - Extension* (page 632), enter the number of the extension that will ring over the External Paging system.

If no

- In *Program 0202 - External Page Ring Source* (page 632), do not enter 3 to enable trunk ringing over Paging.

Step 9: Should trunk ringing broadcast over External Paging?

If yes

- In *Program 0202 - External Page Ring Source* (page 632), enter 8 to enable trunk ringing over Paging.
- In *Program 0203 - UNA Ringing Option* (page 634), set the ringing option for each trunk (0=None, 1=Ring Always, 2=Ring at Night Only, 3=Delay Ring).
- In *Program 0401 - Trunk Delay Ring* (page 644), if you have the UNA Ringing Option above set for Delay Ring (3), use this timer to set the delay interval for delay ring trunks ringing the External Paging system.

If no

- In *Program 0202 - External Page Ring Source* (page 632), do not enter 8 to enable trunk ringing over Paging.

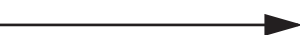
Step-by-step guide for setting up Paging

Step 10: If required, adjust the volume of ringing of the External Paging system.

- In *Program 0202 - Page Ring Volume* (page 632), adjust the volume of ringing over the External Paging system. The entries are 5 (low), 6 (medium), and 4 (high). The setting of this option does not affect Background Music or Door Chime volume.

Step 11: Should Door Box chimes broadcast over External Paging?

If yes



- In *Program 0202 - Door Chime Over External Page* (page 632), enter Y to enable Door Box chimes over External Paging.
- In *Program 1801 - Door Chime* (page 755), when *0202 - Door Chime Over External Page* is enabled set this option for chime types 1, 2 or 3. ***External Paging cannot broadcast chime type 0***

If no



- In *Program 0202 - Door Chime Over External Page* (page 632), enter N to disable Door Box chimes over External Paging.

Step 12: Should Background Music broadcast over External Paging?

If yes



- In *Program 0202 - Background Music Over External Page* (page 632), enter Y to enable Background Music over External Paging.
- In *Program 0201 - Background Music* (page 629), enable this option to turn on Background Music system-wide. If you disable this option, Background Music will never play over External Paging.

If no



- In *Program 0202 - Background Music Over External Page* (page 632), enter N to disable Background Music over External Paging.

Programming List

- Program 0101 - Initiate All Call Page** (page 618)
Enter Y to enable an extension's ability to make an All Call Paging announcement.
- Program 0101 - Access Page Zone 1** (page 618)
Enter Y to enable an extension's ability to make a zone 1 Paging announcement.
- Program 0101 - Access Page Zone 2** (page 618)
Enter Y to enable an extension's ability to make a zone 2 Paging announcement.
- Program 0101 - Access Page Zone 3** (page 618)
Enter Y to enable an extension's ability to make a zone 3 Paging announcement.
- Program 0101 - Access Page Zone 4** (page 619)
Enter Y to enable an extension's ability to make a zone 3 Paging announcement.
- Program 0101 - Access Page Zone 5** (page 619)
Enter Y to enable an extension's ability to make a zone 3 Paging announcement.
- Program 0101 - Access Page Zone 6** (page 619)
Enter Y to enable an extension's ability to make a zone 3 Paging announcement.
- Program 0101 - Access Page Zone 7** (page 619)
Enter Y to enable an extension's ability to make a zone 3 Paging announcement.
- Program 0201 - Background Music** (page 629)
If you enabled **0202 - Background Music Over External Page**, enable this option to turn on Background Music system-wide. If you disable this option, Background Music will never play over External Paging.
- Program 0201 - CPRU Relay** (page 630)
For DS2000 Only
Enter 2 to assign the CPRU relay for Page control.
- Program 0201 - CPRU Relay Page Zone Assignment** (page 630)
For DS2000 Only
Enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).
- Program 0201 - DOOR1 Relay** (page 630)
DS1000 Only
Enter 2 to assign the DOOR1 relay for Page control.
- Program 0201 - DOOR1 Relay Page Zone Assignment** (page 630)
DS1000 Only
Enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).
- Program 0201 - DOOR2 Relay** (page 630)
DS1000 Only
Enter 2 to assign the DOOR2 relay for Page control.
- Program 0201 - DOOR2 Relay Page Zone Assignment** (page 630)
DS1000 Only
Enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).
- Program 0202 - Background Music Over External Page** (page 632)
Use this option to enable (Y) or disable (N) Background Music over External Paging.
- Program 0202 - Door Chime Over External Page** (page 632)
Use this option to enable (Y) or disable (N) Door Box chimes over External Paging.
- Program 0202 - Page Ring Volume** (page 632)
Use this option to adjust the volume of ringing over the External Paging system. The entries are 5 (low), 6 (medium), and 4 (high). The setting of this option does not affect Background Music or Door Chime volume.
- Program 0202 - External Page Ring Source** (page 632)
Use this option to specify the type of call that will ring over External Paging (3=Extension, 6=None, 8=Trunk).

Program 0202 - Extension (page 632)

If extension ringing is selected in **0202 - External Page Ring Source** above, use this option to specify the extension that should activate the ringing.

Program 0202 - Page Ring Volume (page 632)

Program 0203 - UNA Ringing Option (page 634)

If trunk ringing is selected in **0202 - External Page Ring Source** above, use this option to specify the type of ringing at each trunk (0=None, 1=Ring Always, 2=Ring at Night Only, 3=Delay Ring).

Program 0401 - Page Duration (page 643)

Use this timer to set the maximum length of Page announcements.

Program 0401 - Trunk Delay Ring (page 644)

Use this timer to set the delay interval for delay ring trunks ringing the External Paging system.

Program 1701 - Page Zone Key (page 739)

Assign a programmable key on an extension as a Page Zone key (code 13). The options are 0-7 (Page Zones 1-7 or 0 for All Call Page).

Program 1704 - Page Zone Key (page 748)

Assign a programmable key on a DSS Console as a Page Zone key (code 13). The options are 0-7 (Page Zones 1-7 or 0 for All Call Page).

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Program 1801 - Door Chime (page 755)

If **0202 - Door Chime Over External Page** is enabled, set this option for chime types 1, 2 or 3. *External Paging cannot broadcast chime type 0.*

Program 1802 - Page Zone Member (page 760)

Assign the extension to a Page Zone (1-7, 0 for All Call only).

Program 1807 - Paging Through Speaker (page 771)

Enter Y to enable Paging through the telephone speaker.

Other Related Features

Background Music (page 53)

Background Music can broadcast over the External Paging speakers.

Central Office Calls, Answering (page 113)

Trunk ringing can broadcast over the External Paging speakers.

Direct Inward Line (page 170)

DILs cannot ring over the External Paging speakers or activate the page relay.

Direct Station Selection (DSS) Console (page 180)

DSS Consoles can have Page zone keys.

Do Not Disturb (page 220)

DND blocks Paging announcements.

Door Box (page 226)

Door Box chimes can broadcast over the External Paging speakers.

Headset Compatibility (page 291)


While in the headset mode, the extension user can hear Paging announcements in the headset.

Intercom (page 339)

Intercom ringing can broadcast over the External Paging speakers.


Paging

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Paging (Incoming)	#VP	#VP + Y to enable or N to disable + SPK to exit.	3-5

To make an Internal Paging announcement:



1. Lift handset.
2. Press **ICM.**, then dial *1 and page zone number (1-7 or 0 for All Call).

 Two beeps.
 N/A

3. Make announcement and hang up.
The system may limit the length of your announcement.

OR

1. Lift handset.
2. Press Paging key.

 Two beeps.
 N/A

3. Make announcement and hang up.
You can optionally press a Paging key. If you are on an Intercom call when you press the Paging key, the system disconnects the Intercom call and activates the Page.
The system may limit the length of your announcement.

To answer the call that is ringing over the Paging speakers:

1. Lift handset or press **SPK**.
2. Dial *0.
3. Converse with the caller.

*While talking to a Door Box caller, you can press the **FLASH** key or the **OPEN** and **RLS** soft keys to control the Door Box relays.*

Description



DS1000/2000

Available. Refer to *Meet-Me Conference* on page 365 for more.

Park

Description



DS1000/2000

Available.



Park a call in orbit so a co-worker can pick it up. With Park, it is not necessary to locate a person to handle their calls.

Park places a trunk call in a waiting state (called a Park Orbit) so that an extension user may pick it up. There are two types of Park: System and Personal. Use System Park when you want to have the call wait in one of 10 system orbits (60-69). Personal Park allows you to Park a call at an extension so a co-worker can pick it up. After parking a call, a user can Page the person receiving the call and hang up. The paged party dials a code or presses a programmed System Park key to pick up the call. Many calls can be parked at the same extension, and are retrieved in LIFO (last-in, first-out) order.

A call parked in System Park Orbit for too long will recall the extension that initially parked it. The recall for System Park Orbits 68 and 69 is permanently fixed at 5 minutes. If the recall remains unanswered, the call diverts to Key Ring.

A call parked in Personal Park Orbit for too long will initially recall to the extension at which it is parked. If unanswered there, it recalls to the extension that parked the call. If still unanswered, it diverts to Key Ring.

When an extension has System Park keys, the keys provide a Busy Lamp Field (BLF) for the orbit assigned to the key.

Park Key Busy Lamp Indications	
When the key is:	The Park orbit is:
Off	Idle
On (red)	A co-worker has parked a call in the orbit assigned to the key.
Single wink on (green)	The extension user has parked a call in the orbit assigned to the key.

Distinctive Flash Rate on Recall

Park recall features a distinctive flash rate for line keys (see the chart below). This allows the keyset extension user to easily differentiate new calls that are ringing from Parked calls that are recalling.

Distinctive Flash Rate on Park Recall	
For this type of call:	You see this flash rate:
Call that you Parked	Double Wink On (Green)
Call that you initially Parked <u>recalling</u> your phone	Double Wink On (Green)
Call Parked by a co-worker	On (Red)
Call initially Parked by a co-worker that is <u>recalling</u> your phone	Double Wink On (Red)

Enhanced Personal Park Orbit Recall Display

The Personal Park Orbit recall display shows:

- *On all extensions that are ringing with the recall:*
- The type of recall (i.e., Personal Park).
- *On the extension at which the call is parked (while it is ringing):*
- The extension which initially parked the call.
- *On all other extensions as they are ringing with the recall:*
- The extension at which the call was initially parked.

Following are sample Personal Park Orbit recall displays. In the first example, the extension 301 *does not* have a programmed name. In the second example, extension 300 *does* have the programmed name *ATTENDANT*.

```
Personal Park Recall
STA 301
```

```
Personal Park Recall
300: ATTENDANT
```

The Personal Park Orbit recall display occurs:

- At the extension which initially received the Personal Park.
- At the extension which initially parked the call.
- At all other extensions after the call diverts to Key Ring.

Park

Enhanced System Park Orbit Recall Display

The System Park Orbit recall display shows:

- The orbit from which the call is recalling (e.g., 60).
- The extension that initially parked the call (e.g., 301).

Following are sample System Park Orbit recall displays. In the first example, the call was parked in system orbit 60 by extension 301 (which does not have a name). In the second example, the call was parked in system orbit 60 by extension 300 (which has the name *ATTENDANT*).

```
Park 60 Recall  
STA 301
```

```
Park 60 Recall  
300: ATTENDANT
```

The System Park Orbit recall display occurs as the call is ringing the extension that initially parked it, and after the call diverts to Key Ring.

Conditions

None

Default Setting

- Park available.
- No System Park keys assigned.

Programming Guide

Step-by-step guide for setting up Park

Step 1: If a parked call is not picked up, does it recall the extension that initially parked it at after the desired interval?

If yes

- In *Program 0401 - Park Orbit* (page 642), leave the Park Orbit interval at its currently assigned value.

If no

- In *Program 0401 - Park Orbit* (page 642), change the Park Orbit interval to meet the site requirements.

Step 2: Should extension have System Park Orbit keys?

If yes

- In *Program 1701 - Park Orbit Key* (page 738), assign a key as a Park Orbit Key (code 04 + System Park Orbit 60-69).

If no

- In *Program 1701 - Park Orbit Key* (page 738), do not assign a key as a Park Orbit Key (code 04).

Step-by-step guide for setting up Park

Step 3: Should DSS Console have System Park Orbit keys?

If yes

If no

- In *Program 1704 - Park Orbit Key* (page 747), assign a key as a Park Orbit Key (code 04 + System Park Orbit 60-69).
- In *Program 1704 - Park Orbit Key* (page 747), do not assign a key as a Park Orbit Key (code 04).

Programming List

Program 0401 - Park Orbit (page 642)

Set how long a call stays in System Park Orbits 60-67 only before recalling. Note that the recall for orbits 68 and 69 is fixed at 5 minutes.

Program 1701 - Park Orbit Key (page 738)

Assign a programmable key on an extension as a Park Orbit key (code 04). The options are 60-69 (System Park Orbits 60-69).

Program 1704 - Park Orbit Key (page 747)

Assign a programmable key on a DSS Console as a Park Orbit key (code 04). The options are 60-69 (System Park Orbits 60-69).

Other Related Features

Direct Station Selection (DSS) Console (page 180)

DSS Consoles can have Park keys.

Directed Call Pickup (page 193)

Directed Call Pickup also allows an extension user to pick up a call at a co-worker's extension.

Key Ring (page 344)

Unanswered Park recalls divert to key ring.

Music on Hold (page 381)

If installed, Music on Hold plays to parked callers.

Off-Hook Signaling (page 394)

An extension user can Park their current call and answer the waiting call.







Voice Mail (page 580)

When an extension user with Ring No Answer/Busy Terminal Hunting to Voice Mail parks a call at a co-worker's extension, the call recalls to them if not picked up. If still unanswered, the call diverts to Key Ring.







Park

Feature Operation





To Park a call in system orbit:

1. While on a trunk call, press **ICM**.
 Intercom dial tone.
 **ICM** on.
 2. Dial * + System Park Orbit (60-69).
 3. Hang up.
 N/A
 Line/loop key triple Wink On (green).
- OR
1. While on a trunk call, press Park key.
 2. Hang up.
 N/A
 Line/loop key triple wink on (green). Park key single wink on (green).





To retrieve a call from system Park orbit:

1. Lift handset.
 2. Press **ICM**.
 Intercom dial tone.
 **ICM** on.
 3. Dial * + System Park Orbit (60-69).
 Conversation with caller.
 Line/loop key on (green).
- OR
1. Lift handset.
 2. Press Park key.
 N/A
 Line/loop key on.

To Park a call at an extension (using Personal Park):

1. While on a trunk call, press **ICM**.
 Intercom dial tone.
 **ICM** on.
2. Dial * * + Number of extension at which you want to park the call (300-427 in DS2000 or 300-333 in DS1000).
3. Hang up.
 N/A
 *For the extension that parked the call and for the extension at which the call is parked: Line/loop key triple wink on (green).*

To retrieve a call parked at an extension:

1. Lift handset.
2. Press **ICM**.
 Intercom dial tone.
 **ICM** on.
3. Dial * * + Number of extension at which the call is parked.
 Conversation with caller.
 Line/loop key on (green).

PBX/Centrex Compatibility

Description



DS1000/2000 Available.

PBX/Centrex Access Codes

PBX Access Codes are the digits PBX extension users must dial to obtain outside lines. When the DS1000/2000 is installed behind a PBX, DS1000/2000 users must dial these codes *before* the digits for their outside call. For example, if the PBX access code is 98, and the DS1000/2000 user wants to reach 203-926-5400, they must dial 98-1-203-926-5400. Normally, DS1000/2000 Toll Restriction and Forced Account Codes are applied to the digits dialed *after* the PBX Access Code. This is because any call dialed without the PBX access code is an *internal* PBX call, and usually won't require the restrictions imposed by Forced Account Codes and Toll Restriction.

To keep track of valid PBX Access Codes, the DS1000/2000 allows you to enter up to 10 PBX access codes in the PBX Access Codes Table. Each code is either 1 or 2 digits long, using the digits 0-9. You can use the * character as a wild card, which can be entered in any position in the PBX Access Codes table. A wild card allows the user to dial any digit in that position. For example, the entry 7* represents entries 70, 71, 72, etc.

In addition to entering codes in the PBX Access Codes Table, you must also indicate in programming which DS1000/2000 trunks are PBX lines (i.e., connected to the PBX - not the Central Office).

PBX/Centrex Access Codes and Toll Restriction

The following occurs if a DS1000/2000 trunk is programmed as a PBX line and access codes are properly entered in the PBX Access Codes Table (see Programming below):

- If an extension user seizes the trunk and dials a number *without* a valid PBX access code, the DS1000/2000 assumes the call is an internal PBX call and allows it without restriction.
- If an extension user seizes the trunk and dials a number preceded by a valid PBX access code, the DS1000/2000 enforces Toll Restriction based on the digits following the PBX access code.

PBX/Centrex Access Codes and Account Codes

Forced Account Codes for All Calls

If Forced Account Codes for All Calls is enabled, and Forced Account Codes are enabled for the trunk (see Programming below), the system always requires Account Code entry on PBX trunks.

Forced Account Codes for Toll Calls Only

If Forced Account Codes for Toll Calls Only is enabled, the trunk is programmed as a PBX line, access codes are properly entered in the PBX Access Codes Table, *and* Forced Account Codes are enabled for the trunk:

- If an extension user:
 - Seizes the trunk.
 - Dials a number *without* a valid PBX access code.
 - The DS1000/2000 assumes the call is an internal PBX call and does not require the user to enter an Account Code for the call.

If 0201 - Account Code Toll Level = 1-7

- If an extension user:
 - Seizes the trunk,
 - Dials a valid PBX Access Code,
 - Dials a number restricted by the Toll Level specified,

- The DS1000/2000 requires the user to enter an Account Code for the call.

If 0201 - Account Code Toll Level = 0

- If an extension user:
 - Seizes the trunk,
 - Dials a valid PBX Access Code,
 - Dials a number that begins with 0 or 1,
 - The DS1000/2000 requires the user to enter an Account Code for the call.

PBX/Centrex Access Codes and SMDR

The following occurs if a DS1000/2000 trunk is programmed as a PBX line and access codes are properly entered in the PBX Access Codes Table:

- If an extension user dials a call that includes a valid PBX Access Code, the entire number dialed is printed in the Number Dialed column and OUT is printed in the Type column (indicating that the call is an outgoing call).
- If an extension user dials a call that does not include a valid PBX Access Code, the entire number dialed is printed in the Number Dialed column and PBX is printed in the Type column (indicating that the call is an internal PBX call).

Conditions

None

Default Setting

No PBX/Centrex Access Codes programmed.

Programming Guide

Step-by-step guide for setting up PBX/Centrex Codes

Step 1: Do you want to set up PBX Access Codes?

If yes

- In *Program 0610 - PBX Access Codes Table* (page 696), enter codes into the PBX Access Codes table. You can enter up to 10 PBX Access Codes. Each code is either 1 or 2 digits long, using the digits 0-9. You can use * as a wild card character that can be entered in any position.
- In *Program 1001 - PBX Line* (page 703), identify a trunk as a PBX line. You must enable (Y) a trunk as a PBX line if you want the system to use the *0610 - PBX Access Code* entries.

If no

- In *Program 0610 - PBX Access Codes Table* (page 696), do not enter codes into the PBX Access Codes table.
- In *Program 1001 - PBX Line* (page 703), disable (N) the trunk as a PBX line.

PBX/Centrex Compatibility

Programming List

Program 0610 - PBX Access Codes Table (page 696)

Use this option to enter codes into the PBX Access Codes table. You can enter up to 10 PBX Access Codes. Each code is either 1 or 2 digits long, using the digits 0-9. You can use * as a wild card character that can be entered in any position.

Program 1001 - PBX Line (page 703)

Use this option identify a trunk as a PBX line. You must enable (Y) a trunk as a PBX line if you want the system to use the *0610 - PBX Access Code* entries. If disabled (N), the trunk will not use the *0610 - PBX Access Code* entries.

Other Related Features

Speed Dial (page 481)

Speed Dial offers unique compatibility with connected Centrex services.

Feature Operation

Operation is automatic when the feature is properly set up.

PC Program (System Administrator)

Description



DS1000/2000

Available.



The PC Program is a Windows™-based application you can use for programming the telephone system and maintaining site databases, instead of using the conventional telephone programming. The PC Program provides:

- **On-Line Programming (Direct Connection)**
With the PC connected to the telephone system's serial port, you can make immediate changes to the telephone system programming. While connected, the PC Program also allows you to save your new data to a file on the PC hard disk, or upload a "template" database from your PC to the system.
- **Remote Programming (Modem Connection)**
Using a modem connected to your PC and the remote system, you can customize a customer's system without leaving your office. Remote Programming requires customer-provided modems and an available trunk circuit at the remote site.
- **Off-Line Programming**
With Off-Line Programming, the PC Program allows you to set up a database on your PC off line, connect to the telephone system, and upload the entire custom configuration.
- **Database Save and Restore**
Use the PC Program to save a site's data to your PC hard disk. You can easily restore the saved data later on, if required.

PC Program (System Administrator)

The DS1000/2000 PC Program has the following requirements:

- Windows NT, 2000, XP and above.
- P330 with 128 MB RAM.
- 256 color 800 x 600 display (1240 x 1024 optimal).
- Do not use large fonts.
- 40 mBytes of available hard disk space.

Conditions

N/A

Default Setting

N/A

Programming Guide

N/A

Programming List

N/A

Other Related Features

System Programming Backup and Restore (page 508)

You can also use PC Card P/N 85880 (in DS2000) or the Database Transfer Utility (in DS1000) to back up and restore site data.

Feature Operation

Refer to the *PC Program User's Guide* (P/N 80053INS01).

Description



DS1000/2000

Intercom Prime Line enabled by default.



Get dial tone for a new outside or Intercom call just by lifting the handset.

Prime Line Preference allows an extension user to place or answer a call by just lifting the handset. The user does not have to press a line key, loop key, or the ICM key first. This simplifies handling calls. In programming, you designate a line key, loop key, the ICM key, a trunk, or a trunk group as the extension's Prime Line. With a line key, loop key, trunk, or trunk group, the associated trunk (or trunks) becomes your Prime Line. With the ICM key, you get Intercom dial tone when you lift the handset. Any number of extensions can have the same Prime Line assignment.

There are two types of Prime Line Preference: Idle Prime Line and Intercom Prime Line.

Idle Prime Line

Idle Prime Line lets a user place or answer a Prime Line call by just lifting the handset. An extension's Idle Prime Line can be any trunk or trunk group, regardless of whether the extension has a line or loop key for the trunk or group. (If the Prime Line is for a trunk or group, the extension user cannot use the **#PLA** User Programmable Feature to customize the setting.)

Idle Prime Line to any trunk or trunk group is available at single line telephones.

Intercom Prime Line

With Intercom Prime Line, an idle extension user hears Intercom dial tone whenever they lift the handset or press **SPK**. Intercom Prime Line may help the extension user that most often uses Intercom functions or calls co-workers. If an extension's Busy Lamp Field is disabled (which is the default), the Programmable Function Keys do not go into the DSS mode when the user lifts the handset.

Prime Line vs. Ringing Line Preference

Ringing Line Preference has priority over Prime Line. For example, an extension with Ringing Line Preference will answer a ringing trunk, not get dial tone on their Prime Line. In addition, a Ringing Prime Line will have priority over any other ringing trunk. The seize priority is as follows:

- Ringing Prime Line
- Ringing non-Prime Line
- Prime Line

Conditions

None

Default Setting

- Intercom Prime Line enabled.

Prime Line Preference

Programming Guide

Step-by-step guide for setting up Prime Line Preference

Step 1: Should an extension's Prime Line be a key, trunk, or trunk group?

If yes

Prime Line Key

- In *Program 1807 - Prime Line Type* (page 772), enter 1 (for key).
- In *Program 1807 - Prime Line Key* (page 772), select the key assigned as the extension's Prime Line key (programmable keys 1-24 or ICM for Intercom Prime Line). This option does not apply to single line telephones.

Prime Line Trunk

- In *Program 1807 - Prime Line Type* (page 772), enter 2 (for line).
- In *Program 1807 - Prime Line Trunk/Group* (page 772), assign the trunk (1-6 in DS1000, 1-64 in DS2000) the extension seizes when the user lifts the handset. Also use this option to set up Prime Line for single line telephones.

Prime Line Trunk Group

- In *Program 1807 - Prime Line Type* (page 772), enter 2 (for line).
- In *Program 1807 - Prime Line Trunk/Group* (page 772), assign the trunk group (90-98) the extension seizes when the user lifts the handset. Also use this option to set up Prime Line for single line telephones.

At single line extensions, any entry other than Line (2) provides Intercom Prime Line.

If no

Disable Prime Line Preference

- In *Program 1807 - Prime Line Type* (page 772), enter 0 to disable Prime Line Preference.

Step 2: Designate the function of the Prime Line Key (except for Intercom Prime Line).

- In *Program 1701 - Switched Loop Key* (page 737), assign the Prime Line Key as a Switched Loop Key (code 01).
OR
- In *Program 1701 - Fixed Loop Key* (page 737), assign the Prime Line Key as a Fixed Loop Key (code 02 + Trunk Group 0-8).
OR
- In *Program 1701 - Line Key* (page 737), assign the Prime Line Key as a Line Key (code 03 + Trunk number 1-64 in DS2000, 1-6 in DS1000).

Programming List

Program 1701 - Programmable Function Key Assignments (page 737)

Program the key assigned as the extension's Prime Line as a Switched Loop Key (code 01), Fixed Loop Key (code 02 followed by Trunk Group 0-8), or a Line Key (code 03 followed by the trunk number 1-64 in DS2000, 1-6 in DS1000).

Program 1807 - Prime Line Type (page 772)

Use this option to set the Prime Line type at an extension. The options are:

- **Key (1)**
The Prime Line is associated with a key on the phone, assigned in **1807-Prime Line Key**. This is the default setting.
- **Line (2)**
The Prime Line is a trunk or trunk group, assigned in **1807-Prime Line/Line Group**.
- **None (0)**
There is no Prime Line assignment. Nothing happens when the user lifts the handset.

At single line extensions, any entry other than Line (2) provides Intercom Prime Line.

Program 1807 - Prime Line Key (page 772)

If **1807-Prime Line Type** is set to Key (1), use this option to select the key assigned as the extension's Prime Line key. The options are:

- **0 (None)**
There is no Prime Line Key assignment.
- **1-24 (Programmable Function Key 1-24)**
The extension seizes the trunk or group assigned to the designated key when the user lifts the handset.
- **ICM**
This enables Intercom Prime Line. The extension user hears Intercom dial tone when they lift the handset. This is the default setting.

This option does not apply to single line telephones.

Program 1807 - Prime Line Trunk/Group (page 772)

If **1807-Prime Line Type** is set to Line (2), use this option to assign the trunk or trunk group the extension seizes when the user lifts the handset. The trunk or group does not have to be on a key appearing on the phone. Also use this option to set up Prime Line for single line telephones. The options are:

- **1-64**
Line 1-64 (1-6 in DS1000).
- **90-98** (corresponding to trunk groups 0-8).

Prime Line Preference

Other Related Features

Direct Inward Line (page 170)

If an extension's Prime Line is another extension's DIL, lifting the handset will answer the call even though it does not ring the phone.

Direct Station Selection (DSS) (page 177)

With Intercom Prime Line, an idle extension user hears Intercom dial tone whenever they lift the handset or press **SPK**. Since each extension's Busy Lamp Field is disabled by default, the Programmable Function Keys do not go into the DSS mode when the user lifts the handset.


Off-Premise Extensions / On-Premise SLT Extensions (page 399)

On- and off-premise extensions can use Prime Line Preference.

Ringling Line Preference (page 465)

Ringling Line Preference has priority over Prime Line. For example, an extension with Ringling Line Preference will answer a ringling trunk, not get dial tone on their Prime Line.



Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Prime Line Assignment	#PLA	#PLA + Press one of your flashing programmable keys or ICM + SPK to exit.	3-5

To place a call on your Prime Line:

To bypass your Prime Line, press another key (e.g., a line or loop key) before lifting the handset.

1. Lift the handset.

 Trunk dial tone.
 The key assigned as your Prime Line key is on (green).

2. Dial call normally.

Description



DS1000/2000 || Available.



Use Privacy to prevent interruptions at high priority extensions.

An extension with Privacy blocks incoming Barge In attempts, and Call Waiting (Camp-On) signals. Privacy helps extension users that don't want their conversations interrupted.

Note that if an extension with Privacy *enabled* is on a call with an extension with Privacy *disabled*, they are still subject to Barge In attempts and Call Waiting signals to the non-private extension.

Conditions

None

Default Setting

Privacy disabled in an extension's Class of Service.

Programming Guide

Step-by-step guide for setting up Privacy

Step 1: Should an extension have Privacy?

If yes



- In *Program 0101 - Privacy* (page 618), enter Y.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign the extension's Class of Service.

If no



- In *Program 0101 - Privacy* (page 618), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign the extension's Class of Service.

Programming List

Program 0101 - Privacy (page 618)

In an extension's Class of Service, enter Y to enable Privacy.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Privacy

Other Related Features

Attendant Position (page 37)

Since the attendant is never busy for Intercom calls, the attendant always has Privacy enabled.

Call Waiting / Camp-On (page 88)

Privacy blocks Camp-On beeps.

Barge In (Intrusion) (page 56)

Privacy blocks Barge In attempts.

Monitor / Silent Monitor (page 378)

Privacy blocks Monitor attempts.

Privacy Release Groups (page 437)

There is no interaction between Privacy and Privacy Release Groups.

Feature Operation

None

Description



DS1000/2000 || Available.



Quickly join in a co-worker's outside call.

You can program extensions into Privacy Release Groups to simplify sharing trunk calls. Co-workers in the same Privacy Release Group can easily join another group member's trunk call just by pressing the busy line key. The co-worker immediately joins in unannounced and uninvited. Privacy Release Groups are a quick alternative to Conference where control over the Conference is not required. In a Customer Service group, for example, a supervisor could just press a busy line key to monitor any agent's call.

If desired, an extension user can prevent other members of their Privacy Release Group from interrupting their active call. This ensures that group members will not interrupt confidential calls.

Any number of extensions can be in the same Privacy Release Group. However, an extension can only be in a single group. Members of the Privacy Release Group must have line keys and access to the trunks they want to share.

Privacy Release Groups utilizes a Conference circuit. The following table shows the Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Privacy Release Guard Timer

The system provides a guard timer that prevents an extension user from inadvertently placing a Privacy Release Conference on Hold. When an extension user with privacy released presses a line key to join a Conference, the system starts a 3 second guard timer. During this interval, if the initial extension on the call presses their Hold key, they will drop out of the 3-party call. This prevents an extension user, who is trying to extend a call to a co-worker, from inadvertently putting a Privacy Release Conference on Hold by pressing their Hold key.

Conditions

None

Default Setting

No Privacy Release groups assigned.

Privacy Release Groups

Programming Guide

Step-by-step guide for setting up Privacy Release Groups

Step 1: Should extension be in a Privacy Release Group?

If yes

- In *Program 1802 - Privacy Release Group* (page 758), assign the extension to a Privacy Release Group (1-16). Users in the Privacy Release Group must have line keys for the trunks they want to share.
- In *Program 1701 - Line Key* (page 737), assign the extension's line keys. Users in the Privacy Release Group must have line keys for the trunks they want to share.
- In *Program 1704 - Line Key* (page 747), optionally assign line keys to the extension's DSS Console. Users in the Privacy Release Group must have line keys for the trunks they want to share.
- In *Program 1803 - Extension Line Access Assignments* (page 763), assign access to the trunks the Privacy Release Group members want to share. The options are 0 (no access), 1 (incoming only), 2 (outgoing only) and 3 (full access).

If no

- In *Program 1802 - Privacy Release Group* (page 758), assign the extension to Privacy Release Group 0.

Programming List

Program 1701 - Line Key (page 737)

Assign a programmable key as a line key. Users in the Privacy Release Group must have line keys for the trunks they want to share.

Program 1704 - Line Key (page 747)

Optionally assign a programmable key on a DSS Console as a line key. Users in the Privacy Release Group must have line keys for the trunks they want to share.

Program 1802 - Privacy Release Group (page 758)

Assign an extension to a Privacy Release Group (1-16, 0 = Unassigned).

Program 1803 - Extension Line Access Assignments (page 763)

Users in the Privacy Release Group must have access for the trunks they want to share. The options are 0 (no access), 1 (incoming only), 2 (outgoing only) and 3 (full access).

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 56)

Conference (page 142)

Group Listen (page 277)

Meet-Me Conference (page 365)

Tandem Trunking / Unsupervised Conference (page 538)

Privacy (page 435)

There is no interaction between Privacy and Privacy Release Groups.

Feature Operation

To join a trunk call with a member of your Privacy Release Group:



N/A.



Line key on (red).

The line key is on (orange) at the extension that initially placed or answered the call.

1. Press line key.

You can optionally press a line key on your DSS Console.



Conversation with caller.



Line key on (green) for every Privacy Release Group member that joins the call.

To prevent a member of your Privacy Release Group from joining your call:

1. Place or answer trunk call on line key.



Conversation with caller.



Line key on (orange).

2. Press line key.



Conversation with caller continues.



Line key on (green).

A Privacy Release Group member cannot join your call.

3. Repeat step 2 to allow or prevent users to join your call.

Private Line

Description



DS1000/2000

Available.



You can have a line reserved exclusively for your own use.

A Private Line is a trunk reserved for a keyset for placing and answering calls. A user with a Private Line knows when important calls are for them. Additionally, the user has their own trunk for placing calls that is not available to others in the system.

There are three types of Private Lines:

- **Incoming Only**
The keyset has a Private Line only for incoming calls. The user cannot place a call on the Private Line. A customer service representative may want an incoming only Private Line to be sure customers can always get through.
- **Outgoing Only**
The keyset has a Private Line only for outgoing calls. The Private Line does not ring for incoming calls. A service dispatcher may want an outgoing only Private Line so they can always get in touch with field technicians.
- **Both Ways**
The keyset has a Private Line for both incoming and outgoing calls. An executive may want a both ways Private Line that is available only to them for placing and answering calls.

You can optionally set up shared Private Lines between a group of co-workers that work closely together.

Conditions

None

Default Setting

No Private Lines programmed.

Programming Guide

Step-by-step guide for setting up Private Lines (Page 1 of 2)

Step 1: Should extension have a Private Line

If yes



- In *Program 1001 - Trunk Circuit Type* (page 699), assign the correct circuit type to the Private Line.

If no



- Stop.

Step-by-step guide for setting up Private Lines (Page 2 of 2)

Step 2: Should Private Line be exclusively for only one extension?

If yes

- In *Program 1701 - Line Key* (page 737), make sure that only the extension with the Private Line has a line key for the trunk (code 03 followed by the trunk number 1-64 in DS2000, 1-6 in DS1000).
OR
In *Program 1704 - Line Key* (page 747), optionally assign the Private Line to a key on the DSS Console (code 01 followed by the trunk number 1-64 in DS2000, 1-6 in DS1000).
- In *Program 1803 - Extension Line Access Assignments* (page 763), make sure that the extension with the Private Line is the only phone that has access to the trunk. See step 3 below for the specifics.

If no

- In *Program 1701 - Line Key* (page 737), assign line keys (code 03 followed by the trunk number [1-64 in DS2000, 1-6 in DS1000]) for all extensions that will share the Private Line.
OR
In *Program 1704 - Line Key* (page 747), optionally assign the Private Line to a key on the DSS Console (code 01 followed by the trunk number [1-64 in DS2000, 1-6 in DS1000]).

Step 3: Should Private Line be incoming, outgoing or both ways?

Incoming

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 1 for incoming only access.
- In *Program 1805 - Ring Assignments* (page 767), make sure only the extension with the Private Line rings for the trunk.

Outgoing

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 2 for outgoing only access.
- In *Program 1805 - Ring Assignments* (page 767), make sure no extensions ring for the trunk.

Both

- In *Program 1803 - Extension Line Access Assignments* (page 763), enter 3 for full access.
- In *Program 1805 - Ring Assignments* (page 767), make sure only the extension with the Private Line rings for the trunk.

Private Line

Programming List

Program 1001 - Trunk Circuit Type (page 699)

Assign the correct circuit type to the Private Line.

Program 1701 - Line Key (page 737)

Assign the Private Line to a line key (code 03 followed by the trunk number [1-64 in DS2000, 1-6 in DS1000]).

Program 1704 - Line Key (page 747)

Optionally assign the Private Line to a key on the DSS Console (code 01 followed by the trunk number [1-64 in DS2000, 1-6 in DS1000]).

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 767)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night). Check to be sure this program applies to this feature.

Other Related Features

The following features work normally for Private Lines.

Automatic Handsfree (page 45)

Delayed Ringing (page 149)

Group Ring (page 279)

Hold (page 296)

Last Number Redial (page 351)

Night Service / Night Ring (page 389)

Park (page 420)

Prime Line Preference (page 431)

Save Number Dialed (page 468)

Speed Dial (page 481)

Toll Restriction (page 549)

Transfer (page 558)



The following features do not apply to Private Lines

Call Forwarding (page 63)



If you want to be able to forward a private trunk, consider setting up a Direct Inward Line.

Feature Operation

To answer an incoming call on your Private Line:

 Trunk ring.
 Private Line flashing red.



1. Lift handset.

 Conversation with caller.
 Private Line key on (green).

To place a call over your Private Line:

1. Lift handset.

2. Press line key.

 Trunk dial tone.
 Private Line key on (green).

3. Dial outside number.

Programmable Function Keys

Description



DS1000/2000

- Unique defaults in each system.
- Conversation Record to a co-worker's mailbox requires system software version 03.20.07 or higher.



Programmable Function Keys simplify feature operation.

Each keyset has Programmable Function Keys. These Programmable Function Keys simplify placing calls, answering calls and using certain features. You can customize the function of any keyset's Programmable Function Keys from the system program.



The **22-Button Standard and Display Telephones** feature 12 Programmable Function Keys.



The **34-Button Display Telephone** features 24 Programmable Function Keys.



The **34-Button Super Display Telephone** also features 24 Programmable Function Keys.

Programmable Function Keys

The following chart lists the available Programmable Function Key assignments.

- Account Code
- Call Coverage
- Call Forwarding
- Call Timer
- Data Key (Future)
- Group Pickup
- Headset Key
- Hotline
- Intercom Directory Dialing
- Line Key
- Loop Key, Fixed
- Loop Key, Switched
- Message Center
- Multiple Directory Numbers (Future)
- Night Key
- Page Zones
- Park Orbit
- Reverse Voice Over
- Save
- Speed Dial, Personal
- Speed Dial, System
- Split Key
- Voice Mail Record Key

Conditions

If you unplug a 34-button telephone and replace it with a 22-button telephone, Programmable Function Keys 13-24 are inaccessible. However, the system still retains the programming for those keys.

Default Setting

- - In DS2000, keys 1-12 are line keys for trunks 1-12 and keys 13-24 are undefined.
- In DS1000, keys 1-6 are line keys for trunks 1-6 and keys 7-24 are undefined.
For attendants (extension 300 by default)
- Key 11 is a Night (System Mode System) key.
- Key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

Programmable Function Keys

Programming Guide

Step-by-step guide for setting up Programmable Function Keys

Step 1: Do you want to customize an extension's Programmable Function Keys?

If yes



- In *Program 1701 - Programmable Function Key Assignments* (page 737), review the options and set up the Programmable Function Keys to meet the site requirements.

If no



- In *Program 1701 - Programmable Function Key Assignments* (page 737), leave each extension's Programmable Function Keys at their default settings.

Step 2: Are any of an extension's Programmable Function Keys set up as line keys?

If yes



- In *Program 1802 - Key Access to Outbound Lines* (page 760), enter Y to enable line key access to trunks.
- Also, review *Central Office Calls, Answering* on page 113 and *Central Office Calls, Placing* on page 119 for more on setting up trunk calling.

If no



- To provide an answering point for incoming calls, you should have at least one Loop Key reserved for incoming calls. Refer to *Loop Keys* on page 360 for more.

Programmable Function Keys

Programming List

Program 1701 - Programmable Function Key Assignments (page 737)

Assign programmable key functions per the following chart.

Option	Description	Key Code
Undefined	Use this option to designate a key as undefined (no function).	00
Switched Loop Key	Use this option to assign a programmable key as a switched loop key.	01
Fixed Loop Key	Use this option to assign a programmable key as a Fixed Loop Key.	02 + nn (trunk group 90-98)
Line Key	Use this option to assign a programmable key as a line key.	03 + nn (trunk number)
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key.	04 + nn (Park Orbit 60-69)
Hotline Key	Use this option to assign a programmable key as a Hotline key. An extension can also have a Hotline key for a trunk (e.g., 101). However, this capability requires that Direct Trunk Access be enabled. See <i>Direct Trunk Access</i> on page 191 for more.	05 + nnn (extension number)
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key.	06 + nnn (extension number)
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key.	07 + nnn (extension number)
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ring Call Coverage Key.	08 + nnn (extension number)
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediate ring Group Call Pickup key.	09 + nn (Pickup Group 01-08)
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key.	10 + nn (Pickup Group 01-08)
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key.	11 + nn (Pickup Group 01-08)
Page Zone Key	Use this option to assign a programmable key as a Page Zone key.	13 + n (Page Zone 1-7, 0 for All Call)
System Speed Dial Key	Use this option to assign a programmable key as a One-Touch System Speed Dial key. You assign the key to specific System Speed Dial bin.	14 + nnn (System Speed Dial bin, normally 200-299)

Programmable Function Keys

Option	Description	Key Code
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin.	15 + nnn (701-720)
Call Timer Key	Use this option to assign a programmable key as a Call Timer key. There are two types of timer key: manual and automatic.	16 + n (1 = Manual Call Timer, 2 = Automatic Call Timer)
Voice Mail Record Key	Use this option to assign a programmable key as a Voice Mail Record key.	17 + nnn (extension number or valid Subscriber Mailbox)
Night Key	Use this option to assign a programmable key as a Night Key. There are two options: <i>System Mode System</i> key and <i>System Mode UCD Master</i> key. The System Mode System key puts all Key Ring trunks and trunks terminated to Ring Group master numbers in the night mode. The System Mode UCD Master key puts all trunks terminated to UCD Group master numbers in the night mode.	18 + CLEAR (System Mode System key) 18 + UCD Master Number (System Mode UCD Master key)
Data Key	This option is currently not used.	19 + nnn (extension number)
Split Key	Use this option to assign a programmable key as a Split key.	20
ICM Directory Key	Use this option to assign a programmable key as an Intercom Directory Dialing key.	21
ACD Log On Key	• This option is currently not used.	22
Reverse Voice Over Key	Use this option to assign a programmable key as a Reverse Voice Over key.	23 + nnn (extension number)
Message Center Key	Use this option to assign a programmable key as a Message Center key.	24 + nnn (extension number) Note that the extension number does not have to be an installed extension.
Save Key	Use this option to assign a programmable key as a Save Number Dialed key.	25
Account Code Key	Use this option to assign a programmable key as an Account Code key.	26
Call Forwarding	Use this option to assign a programmable key as a Call Forwarding key.	27
Headset Key	Use this option to assign a programmable key as a Headset key.	28

Program 1802 - Key Access to Outbound Lines (page 760)

Enter Y to enable an extension user to press a Programmable Function Key to access and outside line.

Other Related Features


Check Key (page 131)

Check Programmable Function Key assignments.

Direct Station Selection (DSS) (page 177)

If enabled in programming, Programmable Function Keys become DSS keys when the user presses **ICM**.

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Programmable Function Key Assignments	#KP	#KP + Press key you want to program + HOLD + ICM + Press VOL Up or VOL Down to select key option + HOLD + (Enter any additional data, if required + HOLD) + Press VOL Up or VOL Down to select another key to program, or CONF + SPK to exit.	3-5

Refer to the individual features in the chart above.

Programmable Idle Menu Soft Keys (Super Display)

Description



DS1000/2000

Requires system software version 03.20.07 or higher.



Customize the Super Display Telephone idle menu soft keys to exactly meet the user's needs.

The Super Display Telephone idle menu soft keys are customizable in system programming and by the extension user. This allows the idle mode display to be tailored to meet the needs of each Super Display Telephone user. The first chart below shows the default idle menu soft key assignments. The second chart shows all the available idle mode soft keys, their definitions, and the related programming codes.

Super Display Telephone Default Idle Menu Soft Key Assignments			
Key	Display	Display	Key
1	DIRECTORY	(BLANK)	7
2	PROGRAM	(BLANK)	8
3	V-MAIL --	(BLANK)	9
4	CALLS --	SP DIAL 1	10
5	PAGE	SP DIAL 2	11
6	(BLANK)	(BLANK)	12

Super Display Telephone Idle Menu Soft Key Options		
Entry	Display	Description
00	UNDEFINED	The key has no function and the idle menu display is blank.
01	DIRECTORY	Press to access additional soft keys for Intercom, System Speed Dial, and Personal Speed Dial Directory Dialing.
02	INTERCOM	Press to directly access Intercom Directory Dialing.
03	PERSONAL	Press to directly access Personal Speed Dial Directory Dialing.
04	COMPANY	Press to directly access System Speed Dial Directory Dialing.
05	PROGRAM	Press to program the following: <ul style="list-style-type: none"> • Call Forwarding • Call Screening • Distinctive Ringing • Handsfree Reply • Intercom Voice Announce and Forced Intercom Ringing • Language Selection • Name Programming • Speed Dial • Volume for Ringing, Off-Hook Ringing, and Page
06	V-MAIL	Press to call your Voice Mail mailbox. This soft key also shows the number of new messages in your mailbox.

Programmable Idle Menu Soft Keys (Super Display)

Super Display Telephone Idle Menu Soft Key Options		
Entry	Display	Description
07	CALLS	Press to review your Caller ID log. This soft key also shows the number of new calls you have not yet reviewed.
08	PAGE	Press to initiate a Page announcement.
09	SP DIAL 1	Press to access Personal Speed Dial bins 701-710. The display shows the Speed Dial numbers (or names - if programmed).
10	SP DIAL 2	Press to access Personal Speed Dial bins 711-720. The display shows the Speed Dial number (or name - if programmed).
11-30	PERS SPDL BIN 1-20	Press to access the associated Personal Speed Dial bin (701-720). The display shows the Speed Dial number (or name - if programmed).

Conditions

Idle Menu Soft Keys are only available at Super Display telephones.

Default Setting

See the *Super Display Telephone Default Idle Menu Soft Key Assignments* chart on the previous page.

Programming Guide

None

Programming List

Program 1705 - Soft Key Configuration (page 752)

Optionally assign the idle menu soft keys from system programming


Other Related Features

User Programmable Features (page 577)

A Super Display Telephone user can assign their own idle menu soft keys. Also see *Feature Operation* on the next page.

Programmable Idle Menu Soft Keys (Super Display)

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Programmable Idle Menu Soft Keys (Super Display)	#SM	Press the soft key you want to program (or press Vol ▲ or Vol ▼ to scroll through the keys) + HOLD + ICM + Vol ▲ or Vol ▼ to select key option + HOLD + CONF + SPK to exit.	1-5

Super Display Telephone Only

1. Do not press any keys and do not lift the handset.
2. Dial **#SM (#76)**.

?	N/A
👁	KEY NUMBER?1
3. Press the soft key you want to program.
OR
Press **Vol ▲** or **Vol ▼** to scroll through the keys.
4. Press **HOLD**.
5. Enter the key option code from the *Super Display Telephone Idle Menu Soft Key Options* chart on the previous page.
OR
Press **ICM** + **Vol ▲** or **Vol ▼** to select the key option.
6. Press **HOLD** + **CONF**.
7. Select another key to program.
OR
Press **SPK** to exit.

Description



DS1000/2000 || Available.



Use special services (such as telephone banking) over dial pulse trunks.

An extension can use Pulse to Tone Conversion while placing a trunk call to change the dialing mode from dial pulse to DTMF. For a system in a dial pulse area, this permits users to access DTMF services (such as telephone banking) from their DP area. Pulse to tone conversion also helps dial pulse callers use another company's automated attendant dialing options. The user can, for example:

- Place a call to their bank over a DP trunk.
- After the banking service answers, wait 6 seconds. (The system automatically converts dialing to DTMF.)
- Dial additional banking options.

Refer to *Central Office Calls, Answering* on page 113 and *Central Office Calls, Placing* on page 119 for the specifics on setting up your trunk calling.

Conditions

None

Default Setting

Pulse to Tone Conversion always enabled for dial pulse trunks.

Programming Guide

None

Programming List

Program 1001 - Trunk Circuit Type (page 699)

Be sure to program your DP trunk with circuit type 52.

Other Related Features

Pulse to Tone Conversion (page 453)

The system does not provide Pulse to Tone Conversion for SLTs. The conversion must be switched manually from the telephone.

Speed Dial (page 481)



If a Speed Dial number using a dial pulse trunk contains a pause, the digits following the pause automatically dial out as DTMF.

Pulse to Tone Conversion

Feature Operation



To convert your phone's dialing to DTMF after placing your call on a DP trunk:

1. Dial initial digits for call.

		Digits dial out as dial pulse.
		N/A

2. Wait 6 seconds.

3. Dial additional digits.

		Additional digits dial out as DTMF.
		N/A

Description



DS1000/2000

Requires software version 03.10.08 or higher.



The system is compatible with both North American and Latin American applications.

Use the Regional Defaults capability to switch (restart) your system from the North America mode to the Latin America mode. Switching your system to the Latin America mode automatically makes the following changes:

- The default language in programming, SMDR, and all telephone displays is Spanish.
- The Latin American Toll Restriction options are enabled.
- The companding method is switched from Mu-Law to A-Law. See *Program 0301 - A-Law Companding* on page 636 for more.

Only use this option if your system is installed in Latin America. It is not intended for US applications.

Conditions

None

Default Setting

System is enabled for North America installations.

Programming Guide

None

Programming List

Program 9998 - Regional Defaults (page 821)

Use this option to switch your system from the North America mode (1) to the Latin America mode (2).

Other Related Features

Language Selection (page 348)

Changing the Regional Default to Latin America automatically switches all telephone displays to Spanish.

Station Message Detail Recording (page 498)

Changing the Regional Default to Latin America automatically enables the Spanish SMDR header and Call Type data.

Toll Restriction (page 549)

Changing the Regional Default to Latin America automatically enables the Latin American Toll Restriction package. *Latin American Toll Restriction is not included in this manual.*

Regional Defaults

Feature Operation

None

Removing Trunks and Extensions From Service

Description



DS1000/2000 || Available.



Temporarily remove problem extensions and trunks from service until they can be repaired.

Supervisors and attendants can remove problem trunks and extensions from service. This helps ensure maximum system performance. For example, the attendant can busy-out a noisy trunk or problem extension until service personnel can repair the problem. The trunk or extension the appears busy to all callers. Following repair, the attendant or supervisor can return the trunk to service.

The extension or trunk removed from service shows as busy on the appropriate key (e.g., line key or Hotline key). The port activity LED on the ATRU PCB indicates that the trunk is busy.

Conditions

None

Default Setting

Enabled for the attendant (COS 1). Disabled at all other extensions (COS 2-15).

Programming Guide

Step-by-step guide for setting up Removing Trunks and Extensions from Service

Step 1: Should extension be able to remove another extension or trunk from service?

If yes



- In *Program 0101 - Direct Trunk Access* (page 620), enter Y to enable Direct Trunk Access.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

If no



- In *Program 0101 - Direct Trunk Access* (page 620), enter N to disable Direct Trunk Access.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Removing Trunks and Extensions From Service

Programming List

Program 0101 - Direct Trunk Access (page 620)

Enter Y to enable an extension to use Direct Trunk Access. Note that enabling Direct Trunk Access allows the user to bypass Toll Restriction.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Attendant Position (page 37)

Normally, system attendants should have the ability to remove trunks and extensions from service.

Call Forwarding (page 63)

If Call Forwarding is enabled at an extension when it is removed from service, it is reinstated when the extension is returned to service.

Direct Trunk Access (page 191)



An extension user with Direct Trunk Access can remove trunks from service.

Selectable Display Messaging (page 471)

Removing and returning an extension to service does not cancel an extension's Selectable Display Messaging.

Feature Operation

To remove or return an extension or trunk to service:

1. Press **ICM** and dial #40.
2. Dial the number of the extension you want to remove or return to service (300-427 in DS2000 or 300-333 in DS1000).
OR
Dial the number of the trunk you want to remove or return to service (101-164 in DS2000 or 101-106 in DS1000).
3. Dial 4 to return.
OR
Dial 6 to remove.
 Dial tone.
 The display on a telephone removed from service shows: *Out of Service*
The line key for a trunk removed from service is on (red).
4. Press **SPK** to hang up.

Description



DS1000/2000 Available.



Privately call a co-worker while you're busy on your handset.

While on a handset call, Reverse Voice Over lets a busy keyset user make a private Intercom call to an idle co-worker. The busy user just presses and holds down a programmed Reverse Voice Over key to make a private call to the assigned co-worker. The initial caller cannot hear the Reverse Voice Over conversation. The private Intercom call continues until the Reverse Voice Over caller releases the key again. The initial handset call can be a trunk call or an Intercom call. An extension can have Reverse Voice Over keys for more than one co-worker.

Reverse Voice Over could help a salesperson, for example, when placing a call to an important client. The salesperson can talk with the client and give special instructions to an assistant — without interrupting the initial call.

When the keyset is idle, the Reverse Voice Over key functions the same as a Hotline key. The key also shows at a glance the status of the associated extension:

Reverse Voice Over Busy Lamp Indications	
When the key is:	The covered extension is:
Off	Idle or not installed
On	Busy or ringing
Flashing fast	In Do Not Disturb

Reverse Voice Over uses a system Conference circuit while it is active. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Reverse Voice Over

Conditions

None

Default Setting

No Reverse Voice Over keys assigned

Programming Guide

Step-by-step guide for setting up Reverse Voice Over

Step 1: Should extension have Reverse Voice Over Capability?

If yes

- To put a Reverse Voice Over key on a keyset:
In *Program 1701 - Reverse Voice Over Key* (page 740), assign a Reverse Voice Over key (code 23 followed by the assigned extension number).
- OR
- To put a Reverse Voice Over key on a DSS Console:
In *Program 1704 - Reverse Voice Over Key* (page 749), assign a Reverse Voice Over key (code 23 followed by the assigned extension number).
- In *Program 1701 - Reverse Voice Over Key* (page 740), and in *Program 1704 - Reverse Voice Over Key* (page 749), do not assign any Reverse Voice Over keys (code 23).

If no

Programming List

Program 1701 - Reverse Voice Over Key (page 740)

Assign a keyset programmable key as a Reverse Voice Over key (code 23 followed by the assigned extension number).

Program 1704 - Reverse Voice Over Key (page 749)

Assign a DSS Console programmable key as a Reverse Voice Over key (code 23 followed by the assigned extension number).

Other Related Features

Conference (page 142)

An extension user cannot add an incoming Reverse Voice Over call to a Conference.

Direct Station Selection (DSS) Console (page 180)

A DSS Console can have a Reverse Voice Over key.

Do Not Disturb (page 220)

DND does not block Reverse Voice Over.

Hold (page 296)

An extension cannot put an incoming Reverse Voice Over call on Hold.


Transfer (page 558)

While idle, an extension user can use their Reverse Voice Over key to Transfer calls.

Feature Operation



To place a Reverse Voice Over call:

1. While on a handset call, press and hold your Reverse Voice Over key.

 || Two beeps, then conversation with called co-worker.
 || Reverse Voice Over key on (red).



To return to your initial caller:

1. Release your Reverse Voice Over key.

 || Conversation with initial caller in handset.
 || Reverse Voice Over key off.

To place a call to your assigned Reverse Voice Over destination:

1. While your telephone is idle, press your Reverse Voice Over key.

 || Two beeps, then conversation with called co-worker.
 || Reverse Voice Over key on (green).

You can optionally lift the handset for Privacy.

To Transfer a call using you Reverse Voice Over key:

1. While on a call, press **ICM**.

 || Intercom dial tone.
 || ICM key on (red).

2. Press Reverse Voice Over key.

 || Two beeps, then conversation with called co-worker.
 || Reverse Voice Over key on (green).

3. Announce the call to make a Screened Transfer.

OR

Press the flashing line key to return to the call if you co-worker doesn't want it (i.e., rejects your screen).

OR

Hang up to send the call through unscreened.

The call will recall to you if unanswered at the destination extension. If you don't answer the recall, it diverts to Key Ring.

Ring Groups

Description



DS1000/2000

Available. Refer to *Group Ring* on page 279 for more.

Description



DS1000/2000

- Using the System Administrator (PC Program) to set up Ringdown Extension requires system software version 03.11.00 or higher and PC Program version 01.01.07 or higher.
- Setting the ringdown destination as a Personal Speed Dial bin requires system software version 03.12.00 or higher.



Call another extension, group or Voice Mail just by lifting the handset.

A Ringdown Extension automatically calls a co-worker, Voice Mail, a Ring Group, a UCD Hunting group, or a Speed Dial number when the user lifts the handset. The call automatically goes through — there is no need for the user to dial digits or press additional keys. Ringdown extensions are frequently used for lobby phones, where the caller just lifts the handset to get the information desk.

Conditions

None

Default Setting

Ring Down disabled.

Programming List

Program 1802 - Ring Down Destination (page 761)

Assign the extension's Ringdown destination. The destination can be an extension, the Voice Mail master number (e.g., 700), a Ring Group master number, a UCD Group master number, a Personal Speed Dial bin (#701-#720), or a System Speed Dial bin (#200-299). The Ringdown destination cannot be a trunk (e.g., 101).

Note: Using the System Administrator (PC Program) to set up Ringdown Extension requires system software version 03.11.00 or higher and PC Program version 01.01.07 or higher.

Other Related Features

Intercom (page 339)

Ringdown Extension follows the voice-announce status of destination extension. For example, if an extension usually voice-announces Intercom calls, a ringdown to that extension will also voice-announce.

Ringling Line Preference (page 465)

Ringling Line Preference has precedence over Ringdown Extension. If Ringling Line Preference is ringing the phone, lifting the handset answers the call. Lifting the handset does not call the Ringdown destination.

Voice Mail (page 580)



If the Ringdown destination is the Voice Mail master number, the Ringdown Extension user hears the Voice Mail main greeting (“*Please enter your mailbox number*”) after the call connects.

Ringdown Extension

Feature Operation

To use Ringdown Extension:

1. Lift handset or press **SPK**.

 Two beeps or ringing.
 ICM on.

If you hear ringing, wait for the called party to answer. If you hear two beeps, you may begin speaking.

To bypass Ringdown (if your keyset is set up as a Ringdown Extension):

1. Before lifting the handset or pressing **SPK**, press one of the following:
 - **ICM**
 - Line key
 - Programmable Function Key

Description



DS1000/2000 Available.



Simply lift the handset to answer a ringing call.

Ringling Line Preference lets a keyset user answer a ringing call by just lifting the handset. For a user that primarily answers calls, Ringling Line Preference ensures that ringing calls have priority. The tables below show the interaction between Ringling Line Preference and other features for both handset and headset calls.

Table 9: Ringling Line Preference for Handset Call

Feature	Keyset		Attendant	
	RLP = Y	RLP = N	RLP = Y	RLP = N
	Does lifting the handset answer the ringing call?			
Intercom (page 339) Ringling Intercom calls	Yes	Yes	Yes ¹	Yes ¹
Key Ring (page 344) (Line/Loop Keys)	Yes	No	Yes	No
Transfer (page 558)	Yes	No	Yes	No
Direct Inward Line (page 170)	Yes	No	Yes	No
Group Ring (page 279)	Yes	Yes	N/A	N/A
Extension Hunting (page 239) (Call to UCD master)	Yes	Yes	No	No
Call Coverage Keys (page 59)	No	No	No	No
Group Call Pickup (page 273)	No	No	No	No
¹ Ringling Line Preference will not answer a call ringling the Operator Call Key.				

Ringling Line Preference

Table 10: Ringling Line Preference for Headset Calls

Feature	Keyset		Attendant	
	RLP = Y	RLP = N	RLP = Y	RLP = N
	Does pressing SPK while in the Headset mode answer the ringing call?			
Intercom (page 339) Ringing Intercom calls	Yes	Yes	Yes	Yes
Key Ring (page 344) (Line/Loop Keys)	Yes	No	Yes	No
Transfer (page 558)	Yes	No	Yes	No
Direct Inward Line (page 170)	Yes	No	Yes	No
Group Ring (page 279)	Yes	Yes	N/A	N/A
Extension Hunting (page 239) (Call to UCD master)	Yes	Yes	No	No
Call Coverage Keys (page 59)	No	No	No	No
Group Call Pickup (page 273)	No	No	No	No

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. **ICM** Key
2. Line Key (from lowest to highest)
3. Loop Key (from lowest to highest)

In addition, if two extensions with Ringling Line Preference answer the same trunk call simultaneously, the system connects the call to the lowest numbered extension.

Prime Line vs. Ringling Line Preference

Ringling Line Preference has priority over Prime Line. For example, an extension with Ringling Line Preference will answer a ringing trunk, not get dial tone on their Prime Line. In addition, a ringing Prime Line will have priority over any other ringing trunk. The seize priority is as follows:

- Ringing Prime Line
- Ringing non-Prime Line
- Prime Line

Conditions

None

Default Setting

Enabled.

Programming List

Program 1807 - Ringing Line Preference (page 771)
Enter Y to enable Ringing Line Preference.

Other Related Features

Attendant Call Queuing (page 35)

Ringling Line Preference will not answer a call ringling the Operator Call Key.

Intercom (page 339)

Ringling Line Preference answers a ringling Intercom call before a ringling trunk call.


Prime Line Preference (page 431)

Prime Line Preference overrides Ringling Line Preference. For example, if you lift the handset while a call is ringling your phone, you seize your Prime Line instead of answering the ringling call.

Ringdown Extension (page 463)

Ringling Line Preference has precedence over Ringdown Extension. If Ringling Line Preference is ringling the phone, lifting the handset answers the call. Lifting the handset does not call the Ringdown destination.

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Ringling Line Preference	#RLP	#RLP + Y to enable or N to disable + SPK to exit.	2-5

To use Ringling Line Preference:

1. Lift handset or press **SPK**.
You automatically answer the call.

To bypass Ringling Line Preference:

1. Before lifting the handset or pressing **SPK**, press one of the following:
 - **ICM**
 - Line key
 - Programmable Function Key

Save Number Dialed

Description



DS1000/2000

Available.



Save the number you just dialed for quick redialing.

Save Number Dialed permits an extension user to save their last outside number and easily redial it later on. For example, an extension user can recall a busy or unanswered number without manually dialing the digits. The system retains the saved number until the user stores a new one in its place.

Save Number Dialed saves in system memory a dialed number up to 20 digits. The system remembers the digits regardless of whether the call was answered, unanswered or busy. The system normally uses the same trunk as for the initial call. However, if that trunk is busy and is part of a trunk group, Save Number Dialed will automatically select the next trunk in the group. The user can also preselect a specific trunk if desired.

Save Number Dialed requires a uniquely programmed Programmable Function Key or DSS Console Key.

Conditions

None

Default Setting

No Save keys programmed.

Programming Guide

Step-by-step guide for setting up Save Number Dialed (Page 1 of 2)

Step 1: Should extension have a Save key?

If yes



- In *Program 1701 - Save Key* (page 741), enter code 25.

If no



- In *Program 1701 - Save Key* (page 741), do not enter code 25 to assign a key as a Save key.

Step-by-step guide for setting up Save Number Dialed (Page 2 of 2)

Step 2: Should DSS Console have a Save key?

If yes

If no

- In *Program 1704 - Save Key* (page 750), enter code 25.
- In *Program 1704 - Save Key* (page 750), do not enter code 25 to assign a key as a Save key.

Programming List

Program 1701 - Save Key (page 741)

Assign a Save key to a keyset Programmable Function Key (code 25).

Program 1704 - Save Key (page 750)

Assign a Save key to a DSS Console (code 25).

Other Related Features

Account Codes (page 24)

Save Number Dialed does not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Save Number Dialed.

Central Office Calls, Placing (page 119)

Save an outside number, then easily redial it later on.

Direct Station Selection (DSS) Console (page 180)

A DSS Console can have a Save key.

Last Number Redial (page 351)

Last Number Redial also simplifies dialing important numbers.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

Save Number Dialed is not available to on- and off-premise SLTs.

Single Line Telephones (page 479)

Save Number Dialed is not available to SLTs.

Toll Restriction (page 549)

Save Number Dialed will not store a number denied by Toll Restriction.

Trunk (Line) Queuing / Trunk Callback (page 569)

If an extension user presses their Save key and hears busy, they can dial 2 to wait in line for the trunk to become available. The system will automatically redial the call. However, if the user hangs up to convert the queue to a Trunk Callback, the system will not redial the saved call once the trunk connects.

Save Number Dialed

Feature Operation

To save the outside number you just dialed (up to 32 digits):

1. Press Save Number Dialed Key.
The system stores the number you just dialed.

To redial a saved number:

1. (Optional) Press a line key to preselect a trunk for the call.
2. Press Save Number Dialed key.



Stored number dialing out.



Line/loop key triple Wink On (green).

The stored number dials out.

If you hear busy, you may be able to dial 2 and wait in line for the trunk to become free.

Selectable Display Messaging

Description



DS1000/2000

Scrolling through messages operation changed in software versions 03.11.00 and higher.



While you're away from the phone, display telephone callers can receive personalized text messages you set up.

An extension user can select a preprogrammed Selectable Display Message for their extension. Display keyset callers see the selected message when they call the user's extension. Selectable Display Messaging provides personalized text messaging. For example, an extension user could select the message "GONE FOR THE DAY." Any display keyset user calling the extension would see the message. Other than displaying the message, the system puts the call through normally.

There are 16 Selectable Display Messages (01-16), set up in system programming. Messages 01-09 are preset by default, but can be changed to meet the site requirements. Messages 10-16 are initially undefined. Any message can be appended by the extension user. For example, a user could select message 09 (OUT UNTIL) and append the time they are expected back (e.g., 5:00). The total length of the message *plus* any user appended entries cannot exceed 20. Selectable Display Messages cannot begin with numbers.

Following are the 16 default Selectable Display Messages.

Option	Default
Message 01	CALL (plus 15 user entries)
Message 02	BACK BY (plus 12 user entries)
Message 03	MEETING IN ROOM (plus 4 user entries)
Message 04	OUT TO LUNCH (plus 7 user entries)
Message 05	GONE FOR THE DAY (plus 3 user entries)
Message 06	ON VACATION (plus 8 user entries)
Message 07	ON BUSINESS TRIP (plus 3 user entries)
Message 08	IN A MEETING (plus 7 user entries)
Message 09	OUT UNTIL (plus 10 user entries)
Message 10	Undefined (up to 20 characters)
Message 11	Undefined (up to 20 characters)
Message 12	Undefined (up to 20 characters)
Message 13	Undefined (up to 20 characters)
Message 14	Undefined (up to 20 characters)
Message 15	Undefined (up to 20 characters)
Message 16	Undefined (up to 20 characters)

Selectable Display Messaging

Conditions

None

Default Setting

See the table above.

Programming Guide

Step-by-step guide for setting up Selectable Display Messaging

Step 1: Should extension be able to enable Selectable Display Messaging?

If yes

- In *Program 1001 - Internal Call Forwarding* (page 617), enter Y.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign an extension's Class of Service.

If no

- In *Program 1001 - Internal Call Forwarding* (page 617), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign an extension's Class of Service.

Step 2: Do you want to change the default Selectable Display Messages or create new ones?

If yes

- In *Program 0801 - Selectable Display Messages* (page 697), edit the Selectable Display Messages.

If no

- Do not make any changes to **Program 0801 - Selectable Display Messages** (page 697).

Programming List

Program 1001 - Internal Call Forwarding (page 617)

Enter Y to enable Call Forwarding.

Program 0801 - Selectable Display Messages (page 697)

Program the system's 16 Selectable Display Messages (up to 20 characters long).

Program 1801 - Extension Class of Service Assignment (page 755)

Assign an extension's Class of Service.

Other Related Features

Call Forwarding (page 63)

Enabling or canceling Call Forwarding cancels an extension's Selectable Display Messaging.

Selectable Display Messaging

Removing Trunks and Extensions From Service (page 457)

Removing and returning an extension to service does not cancel an extension's Selectable Display Messaging.

Single Line Telephones (page 479)

SLTs cannot use Selectable Display Messaging.

Speed Dial (page 481)

Personal Speed Dial keys can store the codes that enable Selectable Display Messaging.

Feature Operation

22-Button and 34-Button Display Telephone Operation

To select a Selectable Display Message:

1. Press **ICM** and dial ***3**.

OR

Press **PGM + CFWD**. You see:



```
Enter Call FWD type
IMM RNA BNA MORE
```

2. Dial **8** or press **MORE + MSG**. You see:



```
PROGRAM MESSAGE
ENTER MESSAGE NUM:
```

3. Dial the message number (01-16).

OR

Press **Vol Up** or **Vol Down** to scroll through the message numbers.

In software versions prior to 03.11.00, this would scroll through the messages (not the message numbers).

4. Press **HOLD**. The selected message displays.

5. Press **Vol Up** or **Vol Down** to scroll through the text of the available messages.

OR

Press **HOLD** to program or append the message text.

This step was not required in software versions prior to 03.11.00.

6. Enter any additional digits.

The total number of digits/characters in the message cannot exceed 20. Use any valid characters, digits, or symbols (just as if you were entering names). See Entering or Appending Messages on page 476.

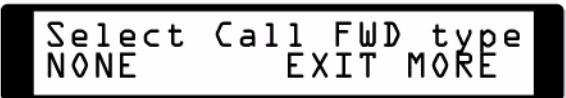
7. Press **HOLD**.

To cancel Selectable Display Messaging:

1. Press **ICM** and dial ***3**.

OR

Press **CLEAR + PGM + CFWD**. You see:



```
Select Call FWD type
NONE EXIT MORE
```

2. Dial **0**, press **CLEAR**, or press **NONE** to cancel forwarding.

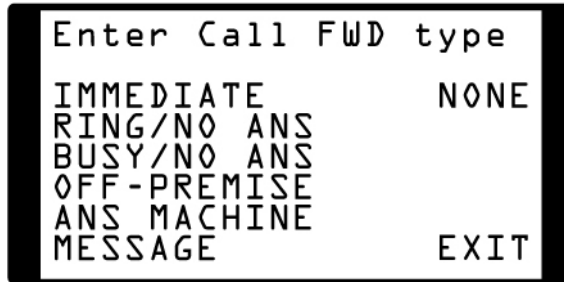
3. Selectable Display Messaging is cancelled.

Selectable Display Messaging

Super Display Telephone Operation


To select a Selectable Display Message:

1. Press **ICM** and dial ***3**.
OR
Press **PROGRAM + CALL FWRD**.



```
Enter Call FWD type
IMMEDIATE          NONE
RING/NO ANS
BUSY/NO ANS
OFF-PREMISE
ANS MACHINE
MESSAGE           EXIT
```

2. Dial **8** or press **MESSAGE**. You see:



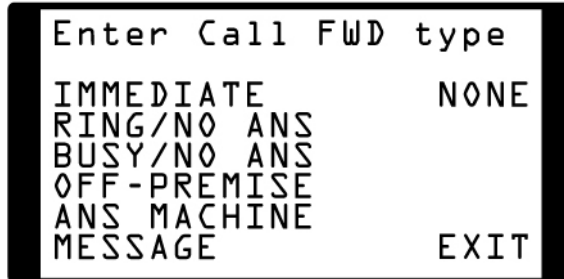
```
PROGRAM MESSAGE
ENTER MESSAGE NUM:
```

3. Dial the message number (01-16).
OR
Press **Vol Up** or **Vol Down** to scroll through the message numbers.
In software versions prior to 03.11.00, this would scroll through the messages (not the message numbers).
4. Press **HOLD**. The selected message displays.
5. Press **Vol Up** or **Vol Down** to scroll through the text of the available messages.
OR
Press **HOLD** to program or append the message text.
This step was not required in software versions prior to 03.11.00.
6. Enter any additional digits.
The total number of digits/characters in the message cannot exceed 20. Use any valid characters, digits, or symbols (just as if you were entering names). See Entering or Appending Messages on page 476.
7. Press **HOLD**.

Selectable Display Messaging

To cancel Selectable Display Messaging:

1. Press **ICM** and dial ***3**.
OR
Press **PROGRAM + CALL FWRD**. You see:



```
Enter Call FWD type
IMMEDIATE          NONE
RING/NO ANS
BUSY/NO ANS
OFF-PREMISE
ANS MACHINE
MESSAGE           EXIT
```

2. Dial **0**.
OR
Press **NONE**.
OR
Press **CLEAR**.
*It is no longer necessary to press **SPK** to hang up.*
3. Selectable Display Messaging is cancelled.

Selectable Display Messaging

Entering or Appending Messages

Use the following tables when entering or appending messages:

Name Programming (03.10.08 or Higher)									
Key	Press a key the indicated number of times for desired character								
	1 Time	2 Times	3 Times	4 Times	5 Times	6 Times	7 Times	8 Times	9 Times
1	&	-	/	'	1				
2	A	B	C	a	b	c	2		
3	D	E	F	d	e	f	3		
4	G	H	I	g	h	i	4		
5	J	K	L	j	k	l	5		
6	M	N	O	m	n	o	6		
7	P	Q	R	S	p	q	r	s	7
8	T	U	V	t	u	v	8		
9	W	X	Y	Z	w	x	y	z	9
0	space	:	0						
#	Not used								
*	Not used								
After selecting a letter, press a key for another letter or wait 2 seconds for the cursor to automatically advance.									
Additional Name Programming Options									
HOLD	Save name. In system programming, HOLD saves and exits name programming.								
CONF	Exit name programming without saving name.								
VOL Up	Scroll the cursor to the left.								
VOL Dn	Scroll the cursor to the right.								
MW	Put the cursor after the last entry.								
LND	Delete the character under the cursor.								
FLASH	Delete the character to the right of the cursor.								
CLEAR	Clear the entire entry.								
CHECK	Restore the previous entry,								

Selectable Display Messaging

Name Programming (Prior to 03.10.08)					
Press this key:	Then one of these keys to enter the character in the white cell:				
	1	2	3	4	#
1	&	- (dash)	/ (backslash)	'(apostrophe)	1
2	A	B	C		2
3	D	E	F		3
4	G	H	I		4
5	J	K	L		5
6	M	N	O		6
7	P	Q	R	S	7
8	T	U	V		8
9	W	X	Y	Z	9
0	SPACE	:			0
*					*
#					

To enter characters in lower case (e.g., **e** instead of **E**), press **MW** before pressing the key in the first shaded column. Use **LND** to backspace over (erase) any characters you want to correct.

Silent Monitor

Description



DS1000/2000

Available. See *Monitor / Silent Monitor* on page 378 for more.

Description



DS1000/2000

Available. Refer to *Off-Premise Extensions / On-Premise SLT Extensions* on page 399 for more.

Soft Keys

Description



DS1000/2000

|| Available. See *Interactive Soft Keys* on page 306.

Description



DS1000/2000

With T1 trunks (DS2000 only), manually dialing after a Speed Dial number prior to answer supervision requires software version 03.10.08 or higher.



Instead of dialing a long telephone number to reach a client or customer, use Speed Dial instead. Also, store Intercom digits for quick access to commonly used features.

Speed Dial gives an extension user quick access to frequently called numbers. There are two types of Speed Dial: System and Personal. Speed Dial numbers can be up to 32 digits long, using 0-9, # and *. Every Speed Dial can have a programmed name up to 16 characters long. The name shows in the telephone display as the Speed Dial number dials out.

Speed Dial can store outside numbers and Intercom digits. The capability to store Intercom digits provides the user with “one-touch” access to features they use most often. For example, a user can have a Speed Dial bin that simplifies forwarding calls to Voice Mail or a co-worker.

System Speed Dial

System Speed Dial gives every extension access to the same set of stored numbers. The system provides up to 1000 System Speed Dial numbers. Depending on the system option selected (see *Programming Guide* below), the system provides either 10, 100 or 1000 System Speed Dial numbers.

Personal Speed Dial

Personal Speed Dial provides extensions with 20 numbers stored privately for their own use. The Personal Speed Dial keys on a DSS Console access the same bins as the extension to which it is attached.

Allocating Speed Dial Blocks

The system allows up to 1240 unique Speed Dial numbers (bins). Bins are grouped into 62 distinct blocks, with 20 numbers in each block. Review the table below and keep the following bullets in mind when setting up Speed Dial:

System Speed Dial			Personal Speed Dial		
Total Bins	Total Blocks	Block Numbers	Total Bins	Total Blocks	Block Numbers
10 (20-29)	1	1 (10 bins not used)	1220	61	2-61
100 (200-299)	5	1-5	1140	57	6-62
1000 (2000-2999)	50	1-50	240	12	51-62

Speed Dial

- The system automatically assigns System Speed Dial blocks. By default, Personal Speed Dial Blocks are assigned as follows.

Extension	Personal Speed Dial Block Assignment
300	6
301	7
through	
356	62

- You can change the Personal Speed Dial block assignment for an extension in system programming. *Always be careful, however, to not assign a Personal Speed Dial block that is already in use for System Speed Dial.* If you do, that extension's personal entries will overwrite the system entries, and vice-versa.
- Extensions with the same Personal Speed Dial block share the same Personal Speed Dial numbers.
- The Personal Speed Dial keys on a DSS Console access the same bins as the extension to which it is attached. DSS Consoles do not have unique Personal Speed Dial numbers.

Unique Speed Dial Entries

In addition to the digits 0-9, # and *, you can enter the following for additional dialing options:

For this option	Or use this telephone Programming List option:
Pause	MIC
Flash	FLASH

Storing Trunk Routing in a Speed Dial Bin

When you program a Speed Dial bin, you can select either a trunk or a Trunk Group over which the call should route. For example, you can enter 1 for trunk 1 or 90 for Trunk Group 90.

- If you enter a Trunk Group number, the system will select the lowest numbered trunk in the group for the call. If that trunk is busy, the system will select the next highest trunk.
- If you enter a trunk number, the system initially selects that specific trunk for the call. If the trunk is busy, the system automatically tries the next trunk in that trunk's group (if any). If there is no other installed trunk in that group, the user hears busy tone and the call doesn't go through.
- The capability to dial 90-98 to select a Trunk Group for a Speed Dial call is not affected by the setting of **Program 0501 - Single Digit Access** (page 673). It is a permanent feature.

Centrex Compatibility

Speed Dial offers unique compatibility with connected Centrex services. A Speed Dial number can accommodate *both* placing a new call *and* outdialing the stored Speed Dial number on an active Centrex trunk. This enables features such as Centrex Transfer and Conference. Speed Dial adheres to the following rules.

- When a user presses ICM and selects a Speed Dial number (using any method), the system examines the contents of the stored Speed Dial bin.
- If the first entry in the bin is an F (Flash command), the system checks to see if the user was active on a trunk call.
 - If the user was active on a trunk call, the system flashes the connected trunk and outdials the contents of the bin (ignoring the trunk selection associated with the bin).
 - If the user was not active on a trunk call, the system ignores the F (flash command), selects the trunk associated with the bin and outdials the stored number.
- If the first entry in the bin is not an F (Flash command), the system handles the Speed Dial entry normally (i.e., selects the trunk associated with the bin and outdials the stored number).

Note that this unique Centrex integration also pertains to Voice Mail ports accessing stored Speed Dial numbers.

Chaining Bins for Dialing Long Numbers

A Speed Dial number can be up to 32 digits long. The system allows this by automatically using the next adjacent bin for entries longer than 16 digits. For example, assume you want to store a Personal Speed Dial number for a banking service (203-926 5400) followed by a pause and your 10 digit customer code (9876543210). If you store the entries in bin 701, the following occurs:

- The system stores the first 16 digits (203 926 5400 Pause 98765) in bin 701.
- The system stores the remaining digits (43210) in bin 702.

Chaining Notes:

- In the above example, bin 702 is inaccessible for viewing, programming, or dialing. It only becomes available if you reprogram bin 701 to be 16 digits or less.
- Since bin 720 is the last Personal Speed Dial bin, it can contain only 16 digits.

Manually Dialing After Speed Dial on T1 Trunks

In software version 03.10.08 or higher, when using a tie line or an outgoing DID trunk for Speed Dial, Auto Redial, Last Number Redial, or Save, the user can manually dial additional digits as soon as the stored number dials out. In software versions prior to 03.10.08, the user could manually dial additional digits only after the trunk received the telco's Answer Supervision Answer Signal.

Answer Supervision is only available with T1/E1 trunks. It applies to:

- T1 E&M trunks (tie line)
- T1 DID trunks when used for outgoing calls
- All types of E1 trunks (not available in North America)

Answer Supervision is not available on analog trunks. On these types of trunks, the user can dial additional digits as soon as the last digit of the stored number dials out.

Conditions

None

Speed Dial

Default Setting

- 100 System Speed Dial bins (200-299).
- System Speed Dial uses Speed Dial blocks 1-5.
- All extensions can program and use System Speed Dial.
- Extension Speed Dial uses blocks 6-62. (Extension 300 uses block 6, extension 301 uses block 7 etc.)
- All bins are empty and no names are programmed.

Programming Guide

Step-by-step guide for setting up Speed Dial

Step 1: Should extension be able to use System Speed Dial?

If yes

- In *Program 0101 - System Speed Dial Access* (page 618), enter Y if extension should have access to System Speed Dial.
- In *Program 1803 - Extension Line Access Assignments* (page 763), make sure extensions have access to the trunks you want to use for System Speed Dial.
- In *Program 1002 - Trunk Groups* (page 709), optionally set up Trunk Groups. See *Storing Trunk Routing in a Speed Dial Bin* on page 482 for more on why you may want to do this.

If no

- In *Program 0101 - System Speed Dial Access* (page 618), enter N if extension should not have access to System Speed Dial.

Step 2: Should the system have 10 (2-digit), 100 (3-digit) or 1000 (4-digit) System Speed Dial numbers?

10

- In *Program 0301 - Number of Digits in a System Speed Dial Code* (page 635), enter 2. System bins will normally be 20-29.

100

- In *Program 0301 - Number of Digits in a System Speed Dial Code* (page 635), enter 3. System bins will normally be 200-299.

1000

- In *Program 0301 - Number of Digits in a System Speed Dial Code* (page 635), enter 4. System bins will normally be 2000-2999.

Step-by-step guide for setting up Speed Dial

Step 3: Do you want to enter System Speed Dial numbers from within system programming?

If yes

- In *Program 1101 - System Speed Dial Numbers* (page 719), enter System Speed Dial numbers. Users with the proper access can also enter System Speed Dial numbers.
- When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

If no

- In *Program 1101 - System Speed Dial Numbers* (page 719), do not enter System Speed Dial numbers. Users with the proper access can still enter System Speed Dial numbers.

Step 4: Should extension or DSS Console have Programmable Function Key access to System Speed Dial numbers.

If yes

- In *Program 1701 - System Speed Dial Key* (page 739), assign a keyset programmable key as a System Speed Dial Key (code 14 + System Speed Dial bin number).
- In *Program 1704 - System Speed Dial Key* (page 748), assign a DSS Console key as a System Speed Dial Key (code 14 + System Speed Dial bin number).

If no

- Do not assign keyset or DSS Console keys for System Speed Dial access.

Step 5: Should extension be able to use Personal Speed Dial?

If yes

- In *Program 1802 - Speed Dial Block* (page 761), assign Personal Speed Dial Blocks to extensions. Refer to *Allocating Speed Dial Blocks* on page 481 for help with assigning blocks. By default, 300=6, 301=7, through 356=62.
- In *Program 1803 - Extension Line Access Assignments* (page 763), make sure extensions have access to the trunks you want to use for Personal Speed Dial.
- In *Program 1002 - Trunk Groups* (page 709), optionally set up Trunk Groups. See *Storing Trunk Routing in a Speed Dial Bin* on page 482 for more on why you may want to do this.

If no

- In *Program 1802 - Speed Dial Block* (page 761), assign the extension to Personal Speed Dial block 0.

Speed Dial

Step-by-step guide for setting up Speed Dial

Step 6: Do you want to enter Personal Speed Dial numbers from within system programming?

If yes

- In *Program 1702 - Personal Speed Dial* (page 743), enter Personal Speed Dial numbers. Users can also enter Personal Speed Dial numbers from their own phone.
- When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

If no

- In *Program 1702 - Personal Speed Dial* (page 743), do not enter Personal Speed Dial numbers. Users can still enter Personal Speed Dial numbers from their own phone.

Step 7: Should extension or DSS Console have Programmable Function Key access to Personal Speed Dial numbers.

If yes

- In *Program 1701 - Personal Speed Dial Key* (page 739), assign a keyset programmable key as a Personal Speed Dial Key (code 15 + System Speed Dial bin number).
- In *Program 1704 - Personal Speed Dial Key* (page 748), assign a DSS Console key as a Personal Speed Dial Key (code 10 + System Speed Dial bin number).

If no

- Do not assign keyset or DSS Console keys for System Speed Dial access.

Step 8: When the system encounters a pause stored in a Speed Dial bin, does it wait the proper interval before outdialing the remainder of the number?

If yes

- In *Program 0401 - Dialing Pause* (page 643), do not change the entry from its assigned value.

If no

- In *Program 0401 - Dialing Pause* (page 643), change the pause duration for compatibility with the connected telco or PBX/Centrex.

Step-by-step guide for setting up Speed Dial

Step 9: When the system encounters a Flash stored in a Speed Dial bin, does it open the loop on the trunk for the proper interval before outdialing the remainder of the number?

If yes

- In *Program 0402 - PBX/Centrex Flash* (page 648), do not change the entry from its assigned value.

If no

- In *Program 0402 - PBX/Centrex Flash* (page 648), change the Flash duration for compatibility with the connected telco or PBX/Centrex.

Step 10: Does the system properly detect dial tone for Speed Dial calls?

If yes

- In *Program 0402 - Dial Tone Detect* (page 647), do not change the entry from its assigned value.

If no

- In *Program 0402 - Dial Tone Detect* (page 647), change the Dial Tone Detect duration for compatibility with the connected telco or PBX/Centrex.

Step 11: When the system outdials DTMF Speed Dial calls, are the DTMF digits properly interpreted by the connected telco or PBX/Centrex.

If yes

- In *Program 0402 - Speed Dial DTMF Tone On* (page 650), do not change the entry from its assigned value.
- In *Program 0402 - Speed Dial DTMF Tone Off* (page 651), do not change the entry from its assigned value.

If no

- In *Program 0402 - Speed Dial DTMF Tone On* (page 650), change the DTMF on interval the system uses for Speed Dial calls to match the connected telco or PBX/Centrex.
- In *Program 0402 - Speed Dial DTMF Tone Off* (page 651), change the DTMF on interval the system uses for Speed Dial calls to match the connected telco or PBX/Centrex.

Programming List

Program 0101 - System Speed Dial Access (page 618)

In an extension's Class of Service, enter Y to allow the extension to access System Speed Dial numbers.

Program 0201 - Enable Account Codes in Speed Dial (page 629)

Program 0301 - Number of Digits in a System Speed Dial Code (page 635)

Assign the number of digits the system uses to designate System Speed Dial bins (2, 3 or 4). With 2-digit bins, the system has 10 bins numbered 20-29. With 3-digit bins, the system has 100 bins numbered 200-299. With 4-digit bins, the system has 1000 bins numbered 2000-2999.

When Number of Digits in a System Speed Dial Code is:	System Speed Dial bin numbers are:	And the total number of System Speed Dial bins is:
2	20-29	10
3	200-299	100
4	2000-2999	1000

Program 0401 - Dialing Pause (page 643)

For Speed Dial, the system waits this interval when it encounters a pause in a Speed Dial bin.

Program 0402 - Dial Tone Detect (page 647)

When the system seizes a line to place a Speed Dial call, it waits this interval for dial tone before outdialing the call.

Program 0402 - PBX/Centrex Flash (page 648)

When the system encounters a flash in a Speed Dial bin, it opens the loop on the trunk for this interval for outdialing the remainder of the call.

Program 0402 - Speed Dial DTMF Tone On (page 650)

Set the duration of DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - Speed Dial DTMF Tone Off (page 651)

Sets the duration the quiet time between DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 1002 - 1002 - Trunk Groups (page 709)

Set up Trunk Groups if you want Speed Dial to use or overflow to Trunk Groups.

Program 1101 - System Speed Dial Numbers (page 719)

Enter System Speed Dial bin names and numbers. When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

Program 1701 - System Speed Dial Key (page 739)

Assign a programmable key on an extension as a System Speed Dial key (code 14). You assign the key to specific System Speed Dial bin (normally 200-299).

Program 1701 - Personal Speed Dial Key (page 739)

Assign a programmable key on an extension as a Personal Speed Dial key (code 15). You assign the key to a specific Personal Speed Dial bin (e.g., 701-720).

Program 1702 - Personal Speed Dial (page 743)

Enter Personal Speed Dial bin names and numbers. An extension user can also enter their Personal Speed Dial numbers from their own telephone. When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

Program 1704 - System Speed Dial Key (page 748)

Assign a programmable key on an extension as a System Speed Dial key (code 14). You assign the key to specific System Speed Dial bin (normally 200-299).

Program 1704 - Personal Speed Dial Key (page 748)

Assign a programmable key on an extension as a Personal Speed Dial key (code 15). You assign the key to a specific Personal Speed Dial bin (e.g., 701-720).

Program 1802 - Speed Dial Block (page 761)

Assign a Speed Dial block (6-62) to an extension. By default, 300=6, 301=7, through 356=62.

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access).

Other Related Features

Account Codes (page 24)

An extension user can store an Account Code in a Speed Dial bin. See **Using Account Codes and Speed Dial** (page 24) for more.

Central Office Calls, Placing (page 119)

You can store outside numbers in Speed Dial bins for quick access to frequently called numbers.

Check Key (page 131)

Check Personal Speed Dial bin assignments.

Direct Station Selection (DSS) Console (page 180)

The DSS Console Personal Speed Dial bins are the same as the extension to which the console is attached. This means that DSS Consoles that share the same block number still have unique Personal Speed Dial.

Toll Restriction (page 549)


The system enforces Toll Restriction on Speed Dial numbers as they are dialed, not as they are stored.

Voice Over (page 600)

An extension user can Voice Over after calling a co-worker by using Personal Speed Dial.

Feature Operation

Personal Speed Dial

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Speed Dial, Personal	#SP	#SP + Press bin key (for bins 701-710) or DIAL then bin key (for bins 711-720) + HOLD + Enter outside line (e.g., 1), line group (90-98), or ICM for Intercom feature + HOLD + Number to store + HOLD + Name + HOLD + Press another bin key or SPK to exit.	1-5

To program a Personal Speed Dial number:

1. Dial **#SP**

 || N/A
 || **SPK** flashes slowly.

2. Dial the Personal Speed Dial bin number (701-720).

OR

Press Personal Speed Dial Key (for bins 1-10).

OR



Press **DIAL** and the Personal Speed Dial Key for bins 11-20.

3. Press **HOLD**.

Speed Dial

4. Enter the trunk number you want the system to use when dialing your stored number (1-64 in DS2000, 1-6 in DS1000).
OR
Enter the Trunk Group number you want the system to use when dialing your stored number (i.e., 90-98 for Trunk Groups 0-8).
OR
Press **ICM** if you want to enter Intercom codes.
5. Press **HOLD**.
6. Enter the number you want to store (up to 30 digits long).
*If storing Intercom codes, you can enter any valid dial sequence consisting of the digits 0-9, # and *.*
To insert a pause, press MIC. To insert a Flash, press FLASH.
7. Press **HOLD**.
8. Enter a name for the Speed Dial number
For help on programming names, see Keys for Entering Names on page 615.
9. Press **HOLD**.
10. Repeat from step 2 to program another bin number.
OR
Press **SPK** to exit.


To dial a Personal Speed Dial number:

1. Press **ICM** and dial #.
 Intercom dial tone comes on - then goes off.
 **SPK** and **ICM** on.
2. Dial the Personal Speed Dial bin number (701-720).
The stored number dials out. To chain Personal Speed Dial bins, wait for the first bin to dial out and then press the second bin key.
If the programmed route for the bin is busy, you can optionally press an idle line key to place the call.



For one-button access to your Personal Speed Dial numbers:

1. Press Personal Speed Dial Key for bins 1-10.
OR
Press **DIAL** then Personal Speed Dial key for bins 11-20.
OR
Press Programmable Function key for Personal Speed Dial bin.
The stored number dials out.



System Speed Dial

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Speed Dial, System	#SP	#SP + Dial System Speed Dial bin number (e.g., 200) + HOLD + Enter outside line (e.g., 1), line group (e.g., 90), or ICM for Intercom feature + HOLD + Number to store + HOLD + Name + HOLD + Press another bin key or SPK to exit.	4 and 5

To program a System Speed Dial number:

1. Dial **#SP**
 -  N/A
 -  **SPK** flashes slowly.
2. Dial the System Speed Dial bin number (normally 200-299).
3. Press **HOLD**.
4. Enter the trunk number you want the system to use when dialing your stored number (1-64 in DS2000, 1-6 in DS1000).
 - OR
 - Enter the Trunk Group number you want the system to use when dialing your stored number (i.e., 90-98 for Trunk Groups 0-8).
 - OR
 - Press **ICM** if you want to enter Intercom codes.
5. Press **HOLD**.
6. Enter the number you want to store (up to 30 digits long).
 - You can enter any combination of the digits 0-9, # and *. To store a pause with your Speed Dial number, press MIC. To insert a Flash, press FLASH.*
7. Press **HOLD**.
8. Enter a name for the Speed Dial number
 - For help on programming names, see Keys for Entering Names on page 615.*
9. Press **HOLD**.
10. Repeat from step 2 to program another bin number.
 - OR
 - Press **SPK** to exit.

To dial a System Speed Dial number:

1. Press **ICM** and dial #.
 -  Intercom dial tone comes on - then goes off.
 -  **SPK** and **ICM** on.
2. Dial the System Speed Dial bin number (normally 200-299).
 - OR
 - Press Programmable Function Key for System Speed Dial bin.
 - The stored number dials out.*
 - If the programmed route for the bin is busy, you can optionally press an idle line key to place the call.*

Speed Dial

To chain Speed Dial bins:

1. Access the first Speed Dial bin and wait for the number to dial out.
2. Press another Personal Speed Dial bin key.
OR
Press a Personal or System Speed Dial Programmable Function Key.
OR
Press a DSS Console Personal or System Speed Dial Key.
3. Repeat step 2 to chain additional numbers.

Description



DS1000/2000

Available.



Switch between active calls without Conferencing the calls together.

With Split, an extension user can split (alternate) between a current call and a new call. Split lets the extension user easily alternate between the calls without joining (Conferencing) the parties together.

Conditions

None

Default Setting

Split disabled (no Split keys programmed).

Programming Guide

Step-by-step guide for setting up Split

Step 1: Should keyset be able to Split between calls?

If yes



- In *Program 1701 - Split Key* (page 740), assign a Programmable Function Key as a Split key (code 20).
OR
- In *Program 1704 - Split Key* (page 749), assign a DSS Console key as a Split key (code 20).

If no



- In *Program 1701 - Split Key* (page 740), **do not** assign a Programmable Function Key as a Split key (code 20).
OR
- In *Program 1704 - Split Key* (page 749), **do not** assign a DSS Console key as a Split key (code 20).

Programming List

Program 1701 - Split Key (page 740)

Assign a Programmable Function Key as a Split key (code 20).

Program 1704 - Split Key (page 749)

Assign a DSS Console key as a Split key (code 20).

Split (Alternate)

Other Related Features

Call Waiting / Camp-On (page 88)

Camp-On lets an extension user know that a call is waiting to be answered. The user can Split between the waiting call and their current call.

Direct Station Selection (DSS) Console (page 180)

A DSS Console can have a Split key.

Off-Hook Signaling (page 394)

An extension user can alternate between their active call and their waiting call.

Feature Operation

To Split between your current Intercom call and a new Intercom call:

Your extension must have a Split Programmable Function Key.

1. Press **HOLD** to place your current Intercom call on Hold, then hang up.
2. Place or answer Intercom call.



 Intercom Callback ring from waiting Intercom call.
 **ICM** slow flash.

3. Press the Split key to switch between your two Intercom calls.

To Split between your current trunk call and an Intercom call:

Your extension must have a Split Programmable Function Key.

1. Press **ICM** to place trunk call on Hold, then hang up.

 Intercom Callback ring from waiting Intercom call.
 Line key flutter on (green). **ICM** slow flash.



2. Place or answer waiting Intercom call.
3. Press the Split key to switch between the Intercom call and the trunk call.

Repeat this step to alternate between the callers.

To Split between your current Intercom call and a trunk call:

Your extension must have a Split Programmable Function Key.

1. Press **HOLD** to place your current Intercom call on Hold.
2. Answer trunk call.



 Conversation with trunk caller.
 **ICM** slow flash.

3. Press the Split key to switch between your two calls.

To Split between your current trunk call and a waiting trunk call:

Your extension must have a Split Programmable Function Key.

1. Press **ICM** to place your current trunk call on Hold, then hang up.
2. Place or answer new trunk call.

 Conversation with trunk caller.
 Line key on (green) for active call, flutter on (green) for call on Hold.

3. Press the Split key to switch between your two calls.

Description



DS1000/2000

DTMF supervisory tones play through the keyset handset or speaker whenever the user lifts the handset. Supervisor tones play whether the keyset is on-hook, on a call, or in the programming mode.



System keysets provide a host of sophisticated extension features.

The system offers 22-Button Display, 22-Button Standard, 34-Button Display, and 34-Button Super Display keyset telephones.

22-Button Display Telephone



The 22-Button Display Telephone features a 2-by-20 alphanumeric display with 4 Interactive Soft Keys for intuitive feature access, 10 Personal Speed Dial bin keys, 12 Programmable Function Keys and 14 fixed feature keys. It also provides a built-in speakerphone, Dual LEDs and a built-in desk stand.

22-Button Standard Telephone



The 22-Button Telephone also has 10 Personal Speed Dial bin keys, 12 Programmable Function Keys and 14 fixed feature keys. It also provides a built-in speakerphone, Dual LEDs and a built-in desk stand. It does not, however, have a 2-line display and Interactive Soft Keys.

Station Instruments

34-Button Display Telephone



The 34-Button Display Telephone features a 2-line, 20 character display with 4 Interactive Soft Keys for intuitive feature access, 10 Personal Speed Dial bin keys, 24 Programmable Function keys and 14 fixed feature keys. It also offers a built-in speakerphone, Dual LEDs, and a built-in desk stand. The 34-Button Display Telephone is compatible with the optional REJ Recording Jack.

34-Button Super Display



The 34-Button Super Display Telephone is the system's premier telephone instrument. It features an 8-line, 20-character display with 12 interactive keys that provide intuitive call processing. The Super Display also offers 24 user-customizable programmable function keys for one-button access to a host of sophisticated features. The 14 fixed feature keys provide quick access to the vast array of standard features. The Super Display is compatible with the optional REJ Recording Jack.

Ring/Message Lamp

Each keyset has a Ring/Message Lamp. Located on the upper right of the keyset faceplate, the Ring/Message Lamp indicates for the following features:

For this feature:	The lamp does this:
Caller ID Logging	Blinks on (green) when there is a new Caller ID record that has not been reviewed
Central Office Calls, Answering	Flashes slow (green) as call rings
Direct Inward Line	Flashes slow (green) as call rings
Hold	Flashes slow (green) during Hold recall
Intercom	Flashes slow (green) as call rings
Message Waiting	Flashes fast (red) when user has a Message Waiting indication left
Park	Flashes slow (green) during Park recall
Transfer	Flashes slow (green as call rings) and during Transfer recall
Voice Mail	Flashes fast (red) when messages are waiting in mailbox

Conditions

None

Default Setting

- Digital station ports (300-315 in DS1000, on installed PCBs in DS2000) *automatically* detect the type of connect device when the keyset, 2-OPX Module (both ports) or Digital Door Box is plugged in.

Programming List

Program 1801 - Extension Circuit Type (page 754)

Assign the correct circuit type for each extension:

- 01 = 22-Button Standard
- 02 = 22-Button Display
- 06 = 34-Button Display
- 09 = 34-Button Super Display

Other Related Features

None

Feature Operation

Refer to the individual features in this manual.

Station Message Detail Recording

Description



DS1000/2000 Available.



SMDR provides a printed record of your calls.

Station Message Detail Recording (SMDR) provides a record of the system's trunk calls. Typically, the record outputs to a customer-provided printer, terminal or SMDR data collection device. SMDR allows you to monitor the usage at each extension and trunk. This makes charge-back and traffic management easier. SMDR includes both incoming and outgoing calls, and can be turned off system-wide or selectively for each trunk.

The SMDR call record outputs when the call completes. The system assigns the SMDR record to the last extension on the call. For example, if extension 306 answers the call, talks for 20 minutes, and then Transfers the call to extension 302, extension 302 "owns" the entire call record as soon as they hang up.

When connecting SMDR in DS2000, use cable P/N 80893 and adaptor P/N 85980 to connect the 8-pin DIN connector on the CPU to the 9-pin COM port on the customer-provided laptop or data collection device. In DS1000, use adaptor P/N 85980 and a Mod-8 patch cord to connect the system's RS-232-C jack to the 9-pin COM port on a customer-provided laptop or data collection device. By default, the data rate is 19200 baud, 8 data bits, 1 stop bit and no parity (typically referred to as 19200 8N1).

The system buffers 50 SMDR call records. When the SMDR buffer fills, new call records will overwrite previously buffered call records.

Call Duration Independent of System Clock

The duration of a call on the SMDR report is calculated independently of the system clock. This prevents changes made to the system Time and Date from inaccurately reporting the call duration after the Time and Date change. The automatic Daylight Savings Time adjustment also will no longer affect the call duration.

Sample SMDR Report

Following is a sample SMDR report:

Station Message Detail Recording
05/07/1999 09:10P

Sta	Lin	Number Dialed	Account	Start	Duration	T
306	01	12039265400		09:10:18P	00:00:05	OUT
306	01	19055072888		09:10:48P	00:01:13	OUT
301	02	-		09:12:13P	00:01:12	IN
304	01	-		09:12:07P	00:01:20	IN
306	01	18003651928		09:15:38P	00:00:14	OUT

Station Message Detail Recording

SMDR Report Definitions

SMDR Report Definitions	
Sta	The extension that placed or answered the call
Lin	The trunk used for the call
Number Dialed	For outgoing calls, the number dialed on the trunk (up to 20 digits)
Account	Account code
Start	The time the call was initially answered
Duration	The total duration of the call
T	OUT = Outgoing trunk call IN = Incoming trunk call RNA = trunk that rang but was not answered

SMDR Report Format

SMDR Report Format (Page 1 of 3)		
Line	Character	Field
Report Start Header		
1	1-32	STATION MESSAGE DETAIL RECORDING
	33,34	Carriage return, line feed
2	1-10	Date (mm/dd/yyyy)
	11	Space
	12-16	Time (hh:mm:ss)
	17	A (for am) or P (for pm)
	18,19	Carriage return, line feed
3	1,2	Carriage return, line feed

Station Message Detail Recording

SMDR Report Format (Page 2 of 3)		
Line	Character	Field
Call Record Header		
1	1-3	- characters
	4	+ character
	5-7	- characters
	8	+ character
	9-40	- characters
	41	+ character
	42-51	- characters
	52	+ character
	53-61	- characters
	62	+ character
	63-70	- characters
	71	+ character
	72-74	- characters
	2	1-3
4		character
5-7		Lin
8		character
9-40		(9 spaces) Number Dialed (10 spaces)
41		character
42-51		(2 spaces) Account (1 space)
52		character
53-61		(2 spaces) Start (2 spaces)
62		character
63-70		Duration
71		character
72		Space
73		T
74	Space	

Station Message Detail Recording

SMDR Report Format (Page 3 of 3)		
Line	Character	Field
3	1-3	- characters
	4	+ character
	5-7	- characters
	8	+ character
	9-40	- characters
	41	+ character
	42-51	- characters
	52	+ character
	53-61	- characters
	62	+ character
	63-70	- characters
	71	+ character
	72-74	- characters
Call Record		
1	1-3	Extension number
	4	character
	5-7	Trunk number (2 digits, right justified, preceded by one space)
	8	character
	9-40	Number dialed (up to 20 characters, right justified, preceded by spaces)
	41	character
	42-51	Account Code (right justified, preceded by spaces)
	52	character
	53-61	Start time of call (hh:mm:ssA or P)
	62	character
	63-70	Duration of call (hh:mm:ss)
	71	character
	72-74	Type of call

Conditions

None

Default Setting

SMDR output disabled.

Station Message Detail Recording

Programming Guide

Step-by-step guide for setting up SMDR

Step 1: Should system output SMDR?

If yes

- In *Program 0301 - SMDR Port* (page 637), enter 1 to enable SMDR at the CPU RS-232-C port.
- In *Program 0301 - CPU Baud Rate* (page 636), set the baud rate on the RS-232-C port to match the requirements of the connected SMDR device. The entries are 1-5 in DS1000; 1-7 in DS1000.

If no

- In *Program 0301 - SMDR Port* (page 637), enter 0 to prevent the CPU from outputting SMDR.

Step 2: Should the SMDR report include the header?

If yes

- In *Program 0301 - Print SMDR Header* (page 637), enter Y to enable the SMDR header. The header will print before the first call record on each new day.

If no

- In *Program 0301 - Print SMDR Header* (page 637), enter N to disable the SMDR header.

Step 3: Should a specific trunk be included in the SMDR report?

If yes

- In *Program 1001 - Print SMDR* (page 704), enter Y to have the system include the trunk in the SMDR report.

If no

- In *Program 1001 - Print SMDR* (page 704), enter N to have the system exclude the trunk from the SMDR report.

Step 4: Should a Ctrl-Break at the connected PC or laptop toggle to the next available baud rate?

If yes

- In *Program 0301 - Fixed Baud Rate* (page 636), disable (N) this option. If disabled, a Ctrl-Break at the connected PC or laptop will toggle to the next available baud rate.

If no

- In *Program 0301 - Fixed Baud Rate* (page 636), enable (Y) this option. If enabled (Y), a Ctrl-Break at the connected PC or laptop will have no effect.

Station Message Detail Recording

Programming List

Program 0301 - CPU Baud Rate (page 636)

Assign the baud rate for the RS-232-C port on the CPU. The options are as follows

- 1 (2400)
- 2 (4800)
- 3 (9600)
- 4 (19200)
- 5 (38400)

You can also use Ctrl + Break from a laptop connected to the CPU RS-232-C port to step through the available baud rates. See *0301 - Fixed Baud Rate* below.

Program 0301 - Fixed Baud Rate (page 636)

Use this option to control the ability of a PC or laptop to change the baud rate of the system's RS-232C serial port. If disabled (N), a Ctrl-Break at the connected PC or laptop will toggle to the next available baud rate. If enabled (Y), a Ctrl-Break at the connected PC or laptop will have no effect.

Program 0301 - SMDR Port (page 637)

Enter 1 to enable SMDR output from the CPU RS-232-C port, or enter 0 to disable SMDR at the CPU RS-232-C port.

Program 0301 - Print SMDR Header (page 637)

Enter Y to have the beginning of the SMDR report and the top of each page include the column header data. The header will print before the first call record on each new day. Enter N to have the SMDR report only include the call data (without the header).

Program 1001 - Print SMDR (page 704)

Enter Y to have the SMDR report include calls on the trunk. Enter N to have the SMDR report exclude calls on the trunk.

Other Related Features

Account Codes (page 24)

Account Codes print on the SMDR report.

Call Timer (page 85)

The Call Timer also helps users keep track of their time on the phone.

Caller ID (page 95)

Caller ID prints out on the SMDR report.

Language Selection (page 348)

The language of the SMDR header and the data in the SMDR Call Type (T) field can be either English or Spanish.

PC Program (System Administrator) (page 429)

Program *0301 - Modem Installed* on page 637 enables the modem initialization string that is set up in the PC Program *Programming: System: Setup* screen. The system outputs this string from the serial port when:

- The system is powered up or reset (while the modem is connected).
- The string is changed in the PC Program (while the modem is connected). The system sends the init string after the PC Program session ends.
- The modem is plugged into the serial port and powered up.
- The *0301 - CPU Baud Rate* or *0301 - Modem Installed* options are changed.

Time and Date (page 546)

Time and date appear on the SMDR report.

Transfer (page 558)

The system assigns the SMDR record to the last extension on the call. For example, if extension 306 answers the call, talks for 20 minutes, and then Transfers the call to extension 302, extension 302 "owns" the entire call record as soon as they hang up.

Year 2000 Compliance (page 610)

The SMDR report displays four digits for the year (i.e., 2000, 2001).

Station Message Detail Recording

Feature Operation

SMDR is automatic once enabled.

Description



DS1000/2000

|| Available.

To check your system's software version:

1. Do not lift the handset, do not press **SPK**, and do not press **ICM**.
2. Dial 8.

Your system's software version displays.

System Identification

Description



DS1000/2000

This option is currently not used.



Store the site name and telephone number in the system data base.

The system administrator can enter the site name and telephone number into the system data base. This information is saved into system memory and will appear on system diagnostic reports, once available.

Conditions

None

Default Setting

No entries.

Programming Guide

Step-by-step guide for setting up System Identification

Step 1: Do you want to enter a site name for the system?

If yes



- In *Program 0302 - Company Name* (page 639), enter the name for the site (up to 15 characters).

If no



- In *Program 0302 - Company Name* (page 639), do not enter the name for the site.

Step 2: Do you want to enter the contact telephone number for the site

If yes



- In *Program 0302 - Company Phone Number* (page 639), enter the site telephone number (up to 14 characters).

If no



- In *Program 0302 - Company Phone Number* (page 639), do not enter the site telephone number.

Programming List

Program 0302 - Company Name (page 639)

Enter the name of the company (up to 15 characters) at which the system is installed. The name appears on top of various system reports.

Program 0302 - Company Phone Number (page 639)

Enter the number that the system should call to report a fault (up to 14 digits). This *is not* the number of the company where the system is installed. It is the number of the remote service center.

Other Related Features

System Diagnostics (page 505)

The company name and phone number will display on system diagnostic reports.

Feature Operation

None

System Programming Backup and Restore

Description



DS1000/2000

|| Available.



Backup and restore site data.

DS2000 PC Cards

The PC Card provides a permanent, non-volatile backup of all the site's programming. If you have backed up your site data to a PC Card, for example, you can easily restore all site programming after an extended power failure.

Use PC Card P/N 85880 to back up and restore your site data. Each PC card can store up to 16 complete data bases. In addition, you can assign a name (up to 10 characters long) to each stored data base. You cannot use PC Card P/N 80052-V**.**. (with system software preloaded) to store site data. This PC Card contains only the system's operating software and the default data base.

Data Base Compatibility

*Software version 03.**.** databases are not compatible with any prior 02.**.** or 01.**.** versions.* You cannot restore a version 02.**.** database into an 03.**.** system.

DS1000 Database Transfer Utility

Use **9988 - DS1000 Database Transfer Utility** to transfer the contents of one DS1000 system (called the source) to another DS1000 system (called the destination). All programming is transferred, including user-set options such as Personal Speed Dial, Distinctive Ringing and custom Volume/Contrast Control settings. *Software version 03.**.** databases are not compatible with any prior 02.**.** versions.*

Conditions

None

Default Setting

No data bases stored.

System Programming Backup and Restore

Programming Guide

Step-by-step guide for setting up System Programming Backup and Restore

Step 1: Do you want to back up the site data to a PC Card?

If yes

- In *Program 9906 - Database Save* (page 812), back up the site data to one of the 12 available PC card addresses.
- Refer to the system Hardware Manual for additional information on using the PC card for backup and restore.

If no

- In *Program 9906 - Database Save* (page 812), do not back up the site data to the PC card.

Step 2: Do you want to restore the site data from a PC card.

If yes

- In *Program 9907 - Database Load* (page 814), restore the site data from one of the 12 available PC card addresses.
- After restoring the site data, the system will automatically reset.
- Refer to the system Hardware Manual for additional information on using the PC card for backup and restore.

If no

- In *Program 9907 - Database Load* (page 814), do not restore the site data from the PC card.

Step 3: Do you want to completely erase all the data in Data Base PC Card P/N 85880?

If yes

- In *Program 9908 - PC Card Erase Utility* (page 816), erase the PC card data.

If no

- Do not use *Program 9908 - PC Card Erase Utility*.

Step 4: Do you want to transfer the contents of one DS1000 system database into another DS1000 system?

If yes

- Following *Program 9988 - DS1000 Database Transfer Utility* (page 817), transfer the contents of one DS1000 system (called the source) to another DS1000 system (called the destination).

If no

- Do not use *Program 9988 - DS1000 Database Transfer Utility*.

System Programming Backup and Restore

Programming List

Program 9906 - Database Save (page 812)

Save (back up) site data to a PC card.

Program 9907 - Database Load (page 814)

Restore (load) site data from a PC card.

Program 9908 - PC Card Erase Utility (page 816)

Erase all the data bases in Data Base PC Card P/N 85880.

Program 9988 - DS1000 Database Transfer Utility (page 817)

Transfer the contents of one DS1000 system (called the source) to another DS1000 system (called the destination).

Other Related Features

System Diagnostics (page 505)

If the system diagnostics report a critical fault that requires a CPU change or system initialization, the installer can quickly restore site programming from the PC card.

Battery Backup (page 58)

In the event of commercial AC power failure, the battery on the CPU PCB provides short-term backup of system memory and the system time and date (Real Time Clock).

PC Program (System Administrator) (page 429)

You can also use the PC Program to back up and restore site data.

Feature Operation

N/A

Description



DS1000/2000 Available.

The following system programs are available:

Program 0100 - Class of Service (page 617)

Program 0101 - Class of Service Options (page 617)

Program 0200 - Tenant Options (page 628)

Program 0201 - Tenant Option Programming (page 628)

Program 0202 - Ring Over External Page Options (page 632)

Program 0203 - UNA Ringing Over External Page (page 634)

Program 0300 - System Options (page 635)

Program 0301 - System Options (Part 1) (page 635)

Program 0302 - System Identification (page 639)

Program 0400 - Timers (page 642)

Program 0401 - System Timers (page 642)

Program 0402 - Trunk Timers (page 647)

Program 0403 - Station Timers (page 655)

Program 0404 - Analog Station Timers (page 658)

Program 0405 - T1/E1 Trunk Timers (page 661)

Program 0406 - T1 Trunk Timers (page 665)

Program 0407 - E1 Trunk Timers (page 667)

Program 0408 - E1 MFC Timers (page 669)

Program 0500 - System Numbering (page 671)

Program 0501 - Numbering Plan (page 671)

Program 0502 - Station Extension Assignments (page 676)

Program 0503 - Trunk Extension Assignments (page 677)

Program 0505 - Extension Swap Utility (page 678)

Program 0510 - ACD/UCD Master Extension Numbers and Names (page 679)

Program 0511 - Ring Group Master Extension Numbers and Names (page 681)

Program 0600 - Toll Restriction (page 683)

Program 0601 - Configure Toll Level Options (page 683)

Program 0602 - 1010 + XXX Equal Access Dialing (page 686)

Program 0603 - 1 + NPA/NXX Dialing 3-Digit Table (page 688)

Program 0604 - 1 + NPA + NXX Dialing 6-Digit Table (page 690)

Program 0605 - NPA/NXX Dialing 3-Digit Table (page 692)

Program 0606 - NPA + NXX Dialing 6-Digit Table (page 694)

Program 0610 - PBX Access Codes Table (page 696)

Program 0800 - Display Messages (page 697)

Program 0801 - Selectable Display Messages (page 697)

Program 1000 - Trunk Programming (page 699)

Program 1001 - Trunk Port Description (page 699)

Program 1002 - Trunk Groups (page 709)

Program 1003 - Trunk Options (page 712)

System Programming List

Program 1004 - Line Group Access (page 716)
Program 1005 - Trunk Caller ID Logging Group (page 717)
Program 1006 - Trunk Line Access (page 718)

Program 1100 - Speed Dial (page 719)
Program 1101 - System Speed Dial Numbers (page 719)

Program 1200 - Verified Account Codes (page 721)
Program 1201 - Verified Account Codes Table (page 721)

Program 1300 - Caller ID Logging (page 723)
Program 1301 - Caller ID Group Configuration (page 723)
Program 1302 - Caller ID Outbound Line/Group (page 724)
Program 1302 - 10 Digit Local Calls (page 725)
Program 1303 - Home Area (HNPA) Codes (page 726)
Program 1304 - Home Area (HNPA) Exception List (page 728)
Program 1305 - Foreign Area (FNPA) Exception List (page 730)

Program 1400 - DID Options (page 732)
Program 1401 - Number of DID Digits (page 732)
Program 1402 - DID Translation Table (page 733)
Program 1403 - DID MFC Dialing Category (page 736)

Program 1700 - Key Programming (page 737)
Program 1701 - Programmable Function Key Assignments (page 737)
Program 1702 - Personal Speed Dial (page 743)
Program 1703 - DSS Key Assignment (page 745)
Program 1704 - DSS Console Key Assignment (page 746)
Program 1705 - Soft Key Configuration (page 752)

Program 1800 - Extension Options (page 754)
Program 1801 - Extension Port Description (page 754)
Program 1802 - Extension Options (Part 1) (page 758)
Program 1803 - Extension Line Access Assignments (page 763)
Program 1804 - Extension Trunk Group Access (page 765)
Program 1805 - Ring Assignments (page 767)
Program 1807 - Extension Options (Part 2) (page 771)
Program 1808 - IntraMail Subscriber Mailbox Options (page 775)

Program 8000 - Voice Mail (page 776)
Program 8001 - Voice Mail Setup (page 776)
Program 8002 - Voice Mail Port Options (Part 1) (page 777)
Program 8003 - Voice Mail Port Options (Part 2) (page 780)
Program 8004 - IntraMail System Options (page 781)
Program 8005 - IntraMail Master Mailbox Options (page 782)
Program 8006 - IntraMail Routing Mailboxes (page 783)
Program 8007 - IntraMail Answer Tables (page 784)
Program 8008 - IntraMail Dial Action Tables (page 785)

Program 9800 - System Utilities, Part 1 (page 786)
Program 9801 - Copy Command (page 786)
Program 9803 - Ring Tone Setup (page 789)
Program 9804 - Initialize Caller ID Log Utility (page 791)

- Program 9900 - System Utilities, Part 2** (page 792)
- Program 9901 - Reset Station Port** (page 792)
- Program 9902 - Set Up Stations (DS1000)** (page 793)
- Program 9902 - Set Up Stations (DS2000)** (page 796)
- Program 9903 - Set Up Trunks (DS1000)** (page 801)
- Program 9903 - Set Up Trunks (DS2000)** (page 803)
- Program 9904 - T1/E1 Configuration** (page 807)
- Program 9905 - Password** (page 811)
- Program 9906 - Database Save** (page 812)
- Program 9907 - Database Load** (page 814)
- Program 9908 - PC Card Erase Utility** (page 816)
- Program 9988 - DS1000 Database Transfer Utility** (page 817)
- Program 9998 - Regional Defaults** (page 821)
- Program 9999 - System Initialization** (page 822)

System Programming Password Protection

Description



DS1000/2000 Available.



Control access to system programming.

The system controls access to the programmable options according to the programming password the administrator enters. There are three password levels:

Logging On with this Password:	Gives you access to these programs:
System Administrator 1 (level 1) Password = 0000	Program 0302 - System Identification (page 639) Program 1101 - System Speed Dial Numbers (page 719)
System Administrator 2 (level 1) Password = 9999	Program 0302 - System Identification (page 639) Program 0801 - Selectable Display Messages (page 697) Program 1101 - System Speed Dial Numbers (page 719) Program 1701 - Programmable Function Key Assignments (page 737) Program 1702 - Personal Speed Dial (page 743) Program 1703 - DSS Key Assignment (page 745)
Installer (level 3) Password - 372000	All

Conditions

When programming passwords, the system will enforce the *higher* level password if there are duplicate entries. For example, if you inadvertently set the level 3 (Installer) password the same as either level 1 (System Administrator 1) or level 2 (System Administrator 2), the system will enforce the level 3 password.

Default Setting

See the table above.

Programming List

Program 9905 - Password (page 811)

Review the complete list of programmable options.

System Programming Password Protection

Other Related Features

System Programming Backup and Restore (page 508)

Backup your system programming to a PC card provides for a permanent, non-volatile backup of all the site's programming.

System Programming List (page 511)

Review the complete list of programmable options.

Feature Operation

None

System Timers

Description



DS1000/2000

Available.



Use the system-side timers to tailor the system to the site's requirements.

The system-wide timers allow the administrator system performance to meet the specific application requirements. Review the table below for a description of each timer.

Following is a summary of the **Program 0401 - System Timers** (page 642) options.

Table 11: Program 0401 - System Timers (Page 1 of 2)

Option	Description	Default
Park Orbit	Use this timer to set how long a call stays in System Park Orbit before it recalls the extension that parked it. This timer is for orbits 60-67 only. The recall for orbits 68 and 69 is fixed at 5 minutes.	60 sec.
Modem Reserve	Use this timer to set how long the system reserves a modem, once requested by an extension user, from the modem pool before returning it to the pool.	30 sec.
Transfer Recall	Use this timer to set how long a transferred call rings an idle destination extension or Ring Group before recalling the extension from which it was initially transferred. In addition, use this timer to set how long a transferred call rings a busy operator extension before recalling the extension from which it was initially transferred.	20 sec.
Intercom Inter-digit	When an extension user places a call, they must dial each succeeding digit within this interval.	6 sec.
Meet-Me Conference	When a user initiates a Meet-Me Conference, the system waits this interval for the Paged party to join the call.	30 sec.
Dialing Pause	For Speed Dial, the system waits this interval when it encounters a pause in a Speed Dial bin.	1 sec.
Page Duration	Use this timer to set the maximum length of Page announcements.	30 sec.
Door Unlock	When a single line (2500 type) user hookflashes while talking to a Door Box, the Door Box strike opens for this interval.	30 sec.

Table 11: Program 0401 - System Timers (Page 2 of 2)

Option	Description	Default
DIL No Answer	<p>This timer sets how long a DIL to an extension rings before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line.</p> <p>This timer also sets the interval after which DID Trunk Overflow and DID Station Intercept occur.</p>	15 sec.
Trunk Revert	<p>This timer sets how long Hold Recall rings the extension that placed the call on hold before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line.</p> <p>This timer also sets how long a DIL to a Ring Group master number rings before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line.</p> <p>In addition, this timer sets how long a Transfer Recall rings the extension that initially transferred the call before Key Ring occurs.</p>	15 sec.
Trunk Delay Ring	Use this timer to set how long the system waits before ringing an extension that has the Delayed Ringing option enabled.	10 sec.
Trunk Overflow	Not used.	20 sec.
Centrex Type Feature Key Delay	This timer sets how long the system waits when it finds a Centrex delay (i.e., D) programmed in a Centrex Feature Key.	50 sec.
ACD/UCD Overflow	This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the UCD Overflow destination.	60 sec
Number of Password Attempts	Use this option to set how many times the system allows a user to enter the incorrect programming password before locking them out.	3
Program Lockout Time	Not used.	10 sec.
Force Program Exit	If a telephone in the programming mode is inactive longer than this interval, the system automatically cancels the programming mode and makes the telephone idle.	120 sec.

Conditions

None

Default Setting

See the table above.

System Timers

Programming List

Program 0401 - System Timers (page 642)

The system-wide timers allow the administrator system performance to meet the specific application requirements.

Other Related Features

Refer to the following for related feature information:

Program 0401 - System Timers (page 642)

Feature Operation

None

Description



DS1000/2000 Available.



Adjustable station timers allow the system to more precisely meet the site requirements.

The system provides many station timers that the administrator can customize. Review the tables below for a description of each station timer.

Following is a summary of the **Program 0403 - Station Timers** (page 655).

Table 12: Program 0403 - Station Timers (Page 1 of 2)

Option	Description	Default
Hold Recall	Use this timer to set how long a call stays on Hold before it recalls the extension that initially placed it on Hold.	60 sec.
Exclusive Hold Recall	Use this timer to set how long a call stays on Exclusive Hold before it recalls the extension that initially placed it on Exclusive Hold.	90 sec.
Camp-On	<ul style="list-style-type: none"> Not used. 	60 sec.
Call Forward Ring No Answer	<p>When Call Forwarding Ring No Answer is enabled, this timer sets how long a forwarded call rings an unanswered extension before routing to the forwarding destination.</p> <p>In addition, use this timer to set how long a transferred call rings a busy non-operator extension before recalling the extension from which it was initially transferred.</p> <p>This timer also sets how long a call will ring an idle UCD Hunting group member before cycling to the next member of the group.</p>	10 sec.
Call Waiting Tone Interval	<p>Use this timer to set the interval between Call Waiting tones.</p> <p>Also use this timer to set the interval between Off Hook Signaling alert tones.</p>	10 sec.
Call Coverage Delay	For extensions with Delayed Ringing Call Coverage keys, this timer sets how long a call flashes the key at an extension before it starts to ring.	10 sec.
Hook Flash Transfer	<ul style="list-style-type: none"> Not used. 	2 sec.
Hook Flash Disconnect	<ul style="list-style-type: none"> Not used. 	12 sec.

System Timers, Stations

Table 12: Program 0403 - Station Timers (Page 2 of 2)

Option	Description	Default
Number of Extended Rings	If an extension's Class of Service enables Extended Ringing, use the timer to set the duration of the Extended Ringing.	20 sec.
Drop Pulse Send	Use this timer to set the duration of the ASTU PCB drop pulse. This pulse is sent to the connected analog device to initiate a disconnect.	300 mS
DTMF Detect	Use this timer to set the DTMF detection threshold for single line (analog device) ports. If the analog device sends a DTMF signal longer than this interval, the system recognizes it as a valid DTMF tone and decodes it. If the DTMF signal is equal to or less than this interval, the system ignores it.	70 mS
Ring No Answer Hunt	Use this timer to set the Extension Hunting Ring No Answer Time. A call will ring a hunt group member extension for this interval before automatically cycling to the next extension in the group.	10 sec.

System Timers, Stations

Following is a summary of the **Program 0404 - Analog Station Timers** (page 658).

Table 13: Program 0404 - Analog Station Timers (Page 1 of 2)

Option	Description	
Loop Current	Use this option to set the maximum allowed loop current for the system's ASTU PCBs. Normally choose 25mA for short loops and 35mA for long loops. In general, a long loop is 3000 feet or longer and a short loop is less than 3000 feet.	25mA (0)
Ringling Frequency	Use this option to define the AC ringing frequency for the system's ASTU PCBs. <i>Do not change this entry from its default value (20 Hz).</i>	20 Hz (1)
Minimum Break Time	This timer defines the minimum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. <i>Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.</i>	10 mS
Maximum Break Time	This timer defines the maximum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. <i>Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.</i>	100 mS
Minimum Make Time	This timer defines the minimum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. <i>Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.</i>	10 mS
Maximum Make Time	This timer defines the maximum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. <i>Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.</i>	100 mS
Minimum Hookflash Time	For ASTU PCBs, this timer defines the minimum amount of time the loop must be opened before the system starts to detect a transfer or hang up sequence. Open loop intervals shorter than the setting are ignored by the ASTU PCB.	105 mS
Maximum Hookflash Time	For ASTU PCBs, this timer defines the maximum amount of time the loop can be opened in order for the system to detect a Transfer sequence. Open loop intervals longer than the setting are interpreted as hang up.	1000 mS (1 second)

System Timers, Stations

Table 13: Program 0404 - Analog Station Timers (Page 2 of 2)

Option	Description	
Minimum Ground Flash Time	For ground start applications with ASTU PCBs, this timer sets the amount of time a ground must be applied before the system detects a transfer sequence. The ASTU uses this timer when analog telephones use ground Transfer instead of open loop Transfer. <i>This timer is not used in North America. Do not change this timer from its default value.</i>	105 mS
Minimum Off-Hook Time	For ASTU PCBs, this timer defines how long a connected analog device must remain off-hook before the system recognizes the off-hook status.	105 mS
Off-Hook Guard Time	The ASTU PCB waits this interval after an analog device hangs up before accepting any additional input from the device. This timer helps prevent erroneous detection due to hardware stabilization.	300 mS
Dial Pulse Guard Timer	The ASTU PCB waits this interval between dial pulse digits before attempting to detect any additional DP digits. This timer helps prevent erroneous DP dialing due to hardware stabilization.	350 mS
Loop Disconnect Time	When the far end disconnects, the ASTU PCB opens the loop to the connected analog device for this interval.	2000 mS (2 seconds)
Ring/MW Wait Period Time	This timer determines the ringing sequence for the devices connected ASTU PCBs. Because of power consumption, it is not possible to ring all analog devices on an ASTU simultaneously. Instead, the card is divided into 4 groups with two ports in each group. Ringing cycles between the 4 groups, ringing each group for this interval.	750 mS

Conditions

None

Default Setting

Refer to the charts above.

Programming List

Program 0403 - Station Timers (page 655)

Customize general station timers.

Program 0404 - Analog Station Timers (page 658)

Customize analog station timers.

Other Related Features

Refer to the following for related feature information:

Program 0403 - Station Timers (page 655)

Program 0404 - Analog Station Timers (page 658)

Feature Operation

None

System Timers, Trunks

Description



DS1000/2000 Available.



Customize critical trunk timers for compatibility with the connected telco or PBX/Centrex.

The system provides many trunk timers that the administrator can customize. Review the table below for a description of each trunk timer.

Following is a summary of the **Program 0402 - Trunk Timers** (page 647). Refer also to:

- *Rules for Detecting Normal CO (Single) Ring* on page 527.
- *Rules for Detecting Special (Double) Ring* on page 528.
- *Rules for Detecting Loop Current* on page 528.

Table 14: Program 0402 - Trunk Timers (Page 1 of 4)

Option	Description	Default
Camp-On	Not used.	60 sec.
Line Response	<p>When the system fails to detect loop current on a trunk, it will wait this interval before marking the trunk as defective.</p> <p>Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may mark properly functioning trunks as defective. If too long, defective trunks may be left in service.</p>	100 (10 seconds)
Dial Tone Detect	<p>When the system seizes a line to place a Speed Dial call, it waits this interval for dial tone before outdialing the call. The system requires that the first dial tone be at least 5 seconds long and the second dial tone to be at least 2.5 seconds long.</p> <p>Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may not seize properly functioning trunks. If too long, there will be too long a delay before the system skips over a defective trunk.</p>	10 (1 second)
PBX/Centrex Flash	<p>Use this timer to set the Flash interval. When a user flashes a trunk (manually or in a Speed Dial number), the system opens the trunk circuit for this interval. For accurate flash function, be sure to set this interval for compatibility with the connected telco or PBX/Centrex.</p> <p>If you set this interval too short, the telco may not always register the flash. If too long, inadvertent disconnects may occur.</p>	800 mS
Flash Disconnect	Not used.	2496mS

System Timers, Trunks

Table 14: Program 0402 - Trunk Timers (Page 2 of 4)

Option	Description	Default
Force Idle (Trunk Guard Time)	<p>Use this timer to set the guard time for trunks. When the system disconnects a trunk (e.g., after a user hang up), the system keeps the line idle until this timer expires. The Trunk Guard Time helps prevent call collisions.</p> <p>If you set this interval too short, call collisions may occur. If too long, there will be unnecessary delays before you can use the trunk for a new call.</p>	10 (1 sec)
PBX Pause	Not used.	0
Minimum Ring Detection Timer	<p>Use this timer to set the threshold for ring detection. If the ring signal is longer than this interval, the system interprets the signal as valid ringing. If the signal is equal to or shorter than this interval, the system ignores the ringing.</p> <p>Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may detect line spikes and anomalies as ringing. If too long, the system may not properly interpret a valid ringing signal.</p>	104 mS
DP Make Timer	Use this timer to set the duration of the Dial Pulse Make signal (i.e., relay closed). This is the “on” time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.	40 mS
DP Break Timer	Use this timer to set the duration of the Dial Pulse Break signal (i.e., relay open). This is the “off” time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.	60 mS
DP Interdigit Timer	Use this timer to set the duration of the Dial Pulse Interdigit signal (i.e., relay open time <i>between</i> each digit). Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.	800 mS
Manual DTMF Tone On	<p>This timer sets the duration of DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down.</p>	150 mS

System Timers, Trunks

Table 14: Program 0402 - Trunk Timers (Page 3 of 4)

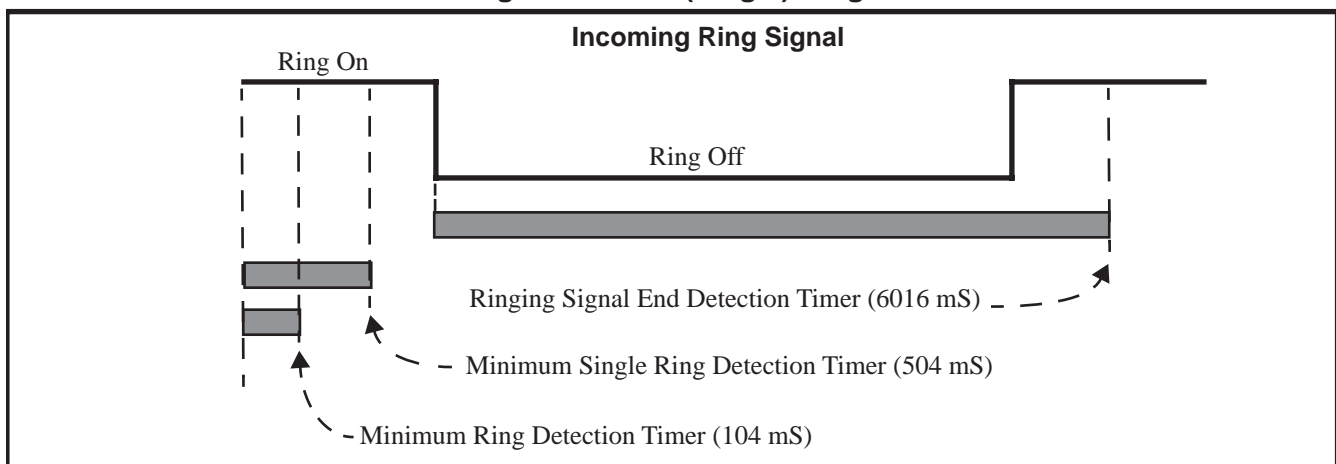
Option	Description	Default
Manual DTMF Tone Off	<p>This timer sets the duration of the interval between DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Note that this is the minimum DTMF Tone off time guaranteed by the system.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, out-bound dialing is unnecessarily slowed down.</p>	100 mS
Speed Dial DTMF Tone On	<p>This timer sets the duration of DTMF digits for Speed Dial trunk calls automatically dialed by the system.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down.</p>	100 mS
Speed Dial DTMF Tone Off	<p>This timer sets the duration the quiet time between DTMF digits for Speed Dial trunk calls automatically dialed by the system.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, out-bound dialing is unnecessarily slowed down.</p>	100 mS
Loop Current Detection Time	<p>For loop start trunks, loop current must be present for this interval before the system seizes the trunk.</p> <p>Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently seize unstable trunks. If too long, the system may not properly seize a valid trunk.</p>	800 mS
Far End Disconnect	<p>Use this timer to set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk trunk to idle.</p> <p>Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently disconnect valid trunks. If too long, the system may leave trunks connected that it should tear down.</p>	300 mS
Minimum Single Ring Detection Timer	<p>The system uses this timer to detect valid ringing signal from the connected telco or PBX. Valid single ring must be longer than this interval.</p>	1216 mS
Minimum Double Ring Detection Off Timer	<p>The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be longer than this interval.</p>	288 mS

System Timers, Trunks

Table 14: Program 0402 - Trunk Timers (Page 4 of 4)

Option	Description	Default
Maximum Double Ring Detection Off Timer	The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be less than this interval.	576 mS
Ringling Signal End Detect Timer	If the ringing signal on a trunk call is interrupted for longer than this interval, the system assumes ringing has stopped and terminates the call. Set this option for compatibility with the connected telco or PBX Centrex. If this interval is set to short, valid ringing will be inadvertently cut off. If too long, the system will leave the call set up even after ringing has stopped.	6016 mS
Caller ID Detection Timer	With DSP-based Caller ID, the Caller ID Detection Timer is the amount of time between the first and second ring bursts that the system can detect Caller ID digits. If this timer is set too long, the outside caller will hear ringing followed by reorder tone. If set too short, all the Caller ID digits may not be detected. This timer is not used with DS2000 daughter board-based Caller ID.	2944 mS
Ground Start Timer	Not used.	800 mS
Pause Timer	Not used.	3008 mS
DP Mute Timer	Not used.	8 mS
P.F. Recovery Detect Timer	When the ATRU PCB recovers from a power failure, it checks the power failure trunk (trunk 1) for loop current for the P.F. Recovery Detect interval. If loop current is detected, it assumes the Power Failure Telephone is still connected and does not tear down the call. If loop current is not detected, the ATRU PCB switches the trunk out of the power failure mode.	3008 mS

Rules for Detecting Normal CO (Single) Ring



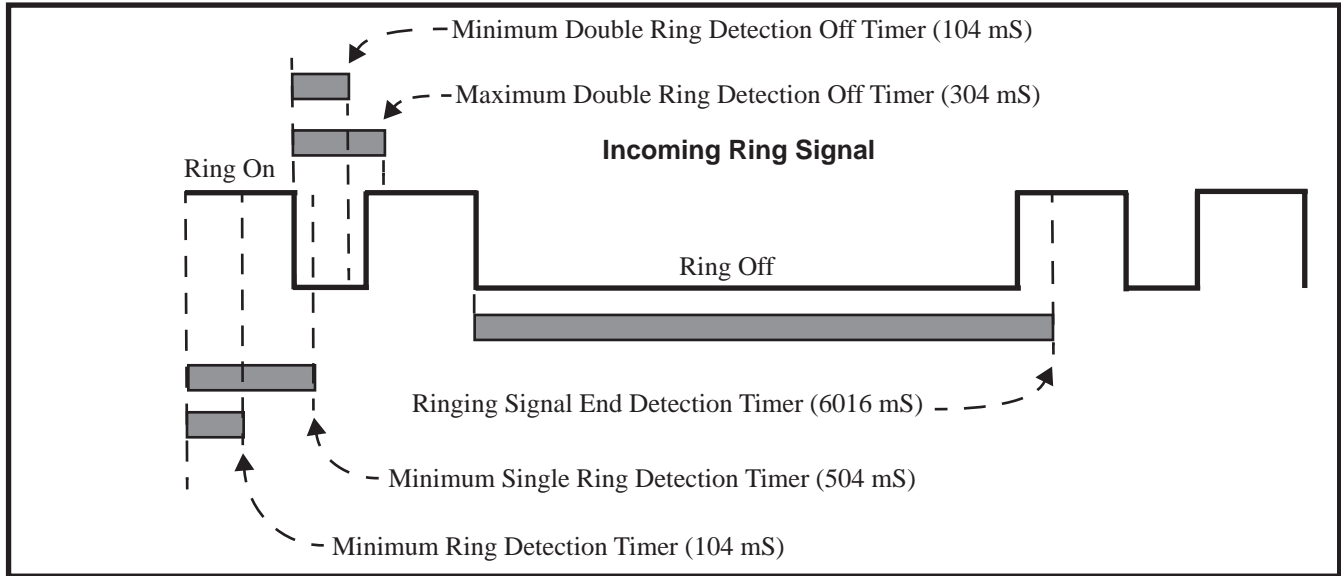
1. The ring signal must be longer than the *Minimum Ring Detection Timer* (normally 104 mS).

System Timers, Trunks

2. The ring signal must also be longer than the *Minimum Single Ring Detection Timer* (normally 504 mS).
3. The interval between ring bursts must not be longer than the *Ring Signal End Detection Timer* (normally 6016 mS).

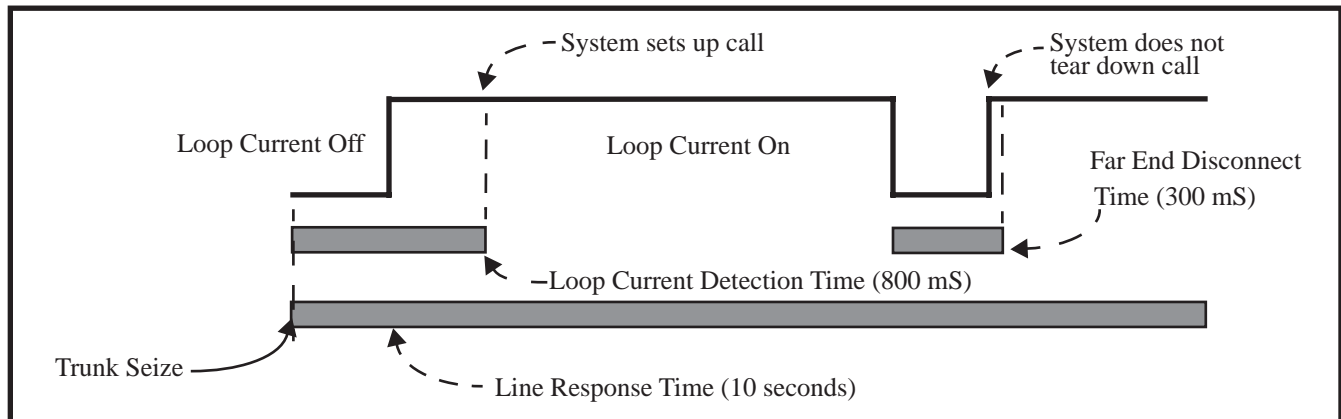
Rules for Detecting Special (Double) Ring

(This option is normally not required and is intended for only for certain Centrex/PBX applications with unique incoming ring.)



1. The ring signal must be longer than the *Minimum Ring Detection Timer* (normally 104 mS).
2. The ring signal must be shorter than the *Minimum Single Ring Detection Timer* (normally 504 mS).
3. The off interval between the two double rings must be greater than the *Minimum Double Ring Detection Off Timer* (normally 104 mS) but less than the *Maximum Double Ring Detection Off Timer* (normally 304 mS).
4. The interval between the second burst of a ring cycle and the first burst of the next cycle must not be longer than the *Ring Signal End Detection Timer* (normally 6016 mS).

Rules for Detecting Loop Current



1. When the system seizes a trunk, it will wait the *Line Response Time* (normally 10 seconds) for loop current. (If it doesn't detect loop current, it marks the trunk as defective. If it does detect

loop current, it will proceed to step 2 below.) Note that *Line Response Time* is a system timer. (not a trunk timer).

2. Once loop current is detected, it must be present for the *Loop Current Detection Time* (normally 800 mS).
3. If loop current is interrupted for longer than the *Far End Disconnect Time* (normally 300 mS), the system disconnects the call.

Conditions

None

Default Setting

Refer to the chart above.

Programming List

Refer to the chart above.

Other Related Features

Refer to the following for related feature information:

Program 0402 - Trunk Timers (page 647)

Feature Operation

None

T1 Trunking

Description



DS1000	Not available.
DS2000	Available.



Provides advanced digital trunking and simplifies installation.

T1 trunking requires a unique T1 PCB (P/N 80061) and gives the system a maximum of 24 trunks in a single PCB slot. The available T1 trunk types include:

- Loop Start (DTMF and Dial Pulse)
- Ground Start (DTMF and Dial Pulse)
- Direct Inward Dial (DID) Wink Start (DTMF and Dial Pulse)
- Direct Inward Dial (DID) Immediate Start (DTMF and Dial Pulse)
- E&M Tie Line Wink Start (DTMF and Dial Pulse)
- E&M Tie Line Immediate Start (DTMF and Dial Pulse)

T1 gives the system the advantages of advanced digital trunking as well as conserving PCB slots. For example, you can set up a system with 12 loop start trunks, six tie lines, and six DID trunks and use only a single PCB slot. Additionally, the T1 PCB has its own on-board processor and DSP so it minimally impacts other system resources.

Note: Although the T1 PCB can connect directly to the telco's T1 smart jack, your telco may require that you purchase and install a separate Channel Service Unit (CSU). This unit installs between the smart jack and the T1 PCB.

ANI/DNIS Support

The system is compatible with telco's T1 Automatic Number Identification (ANI) and Dialed Number Information Service (DNIS) services. ANI/DNIS services can be provided on T1 loop start, ground start, and DID trunks (but not E&M). ANI/DNIS Compatibility provides:

- **Selectable Receive Format**
You can set up the system for compatibility with any combination of ANI, DNIS and Dialed Number (Address) data provided by the telco.
- **Flexible Routing for DID Trunks**
For DID trunks, the system can route the incoming call based on the received DNIS data and the entries stored in the DID Translation Table. See *Direct Inward Dialing* on page 155 for more.
- **Caller ID**
The system can use the received ANI data to display the caller's number on the called extension's display. The ANI data can be up to 10 digits long.

FSK Caller ID

The T1 PCB can also receive FSK-based Caller ID (if provided by the telco), the same as the ATRU (analog) trunk cards. To receive this type of Caller ID, you must enable DSP Caller ID for the T1 trunk circuits in programming. See the *Programming Guide* and *Programming List* below for more.

E1 Trunking

The T1 PCB also supports E1 trunking, which provides 30 digital trunk circuits. E1 trunking is not available in North America. Many T1 programs are also used for E1 (see *Programming List* below for more). The following additional programs are exclusively for E1 trunking:

- **Program 0101 - Outgoing ANI Privacy** (page 624)
- **Program 0407 - E1 Trunk Timers** (page 667)
- **Program 0408 - E1 MFC Timers** (page 669)
- **Program 1001 - E1 Signaling Type** (page 705)
- **Program 1001 - MFC Dialing Type** (page 705)
- **Program 1001 - Enable MFC GB** (page 706)
- **Program 1403 - DID MFC Dialing Category** (page 736)
- **Program 1802 - Outgoing ANI ID** (page 761)

Conditions

None

Default Setting

Disabled

T1 Trunking

Programming Guide

Step-by-step guide for setting up T1 Trunking (Page 1 of 2)

Step 1: Set the circuit type for each T1 trunk.

- Be sure your T1 PCB is installed and connected and that your telco is providing T1 service.
- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each Tie trunk:
 - 51 = Loop Start DTMF
 - 52 = Loop Start Dial Pulse
 - 53 = Ground Start DTMF
 - 54 = Ground Start Dial Pulse
 - 57 = DID DTMF Wink Start
 - 58 = DID Dial Pulse Wink Start
 - 59 = DID DTMF Immediate Start
 - 60 = DID Dial Pulse Immediate Start
 - 61 = E&M DTMF Wink Start
 - 62 = E&M Dial Pulse Wink Start
 - 63 = E&M DTMF Immediate Start
 - 64 = E&M Dial Pulse Immediate Start

Step 2: Review the T1 Trunk Timers for compatibility with the connected telco's T1 service.

- Review the settings of the following timers:
- *Program 0405 - T1/E1 Trunk Timers* on page 661.
 - *Program 0406 - T1 Trunk Timers* on page 665.

Step 3: Review the T1 PCB configuration options.

- In *Program 9904 - T1/E1 Configuration* (page 807), review the following T1 configuration settings. The default settings are below each option.
- Clock Control
 - T1 PCB is the clock master
 - Transmit Pulse Amplitude
 - 0 (0dB)
 - T1 PCB is within 133' of smart jack or CSU
 - Framing Type
 - ESF (Extended Super Frame)
 - Zero Suppression
 - Enabled (B8ZS)
 - Number of PCM Channels
 - 0 (all channels active)
 - Loopback
 - 0 (No loopback options enabled)

Step-by-step guide for setting up T1 Trunking (Page 2 of 2)

Step 4: Do the T1 Trunks provide ANI/DNIS services (not for E&M trunks)?

If yes

- In *Program 1001 - Caller ID* (page 704), enter 3 to enable ANI-based Caller ID for the trunk.
- In *Program 1001 - ANI/DNIS* (page 704), specify the type of ANI/DNIS data received from the telco:
 - 0 = No ANI/DNIS data
 - 1 = ANI
 - 2 = *ANI*
 - 3 = *DNIS*
 - 4 = *ANI*DNIS*
- In *Program 1001 - ANI Delimiter* (page 705), indicate the type of ANI delimiter provided by the telco (for options 2-4 in the previous bullet only). The delimiter can be any character 0-9, # or *. (Normally, the delimiter is *.)
- In *Program 1001 - Number of ANI Digits* (page 705), specify the number of digits the telco provides in the ANI number (for option 1 only). This program does not apply to options 2-4 (which use delimiters).

If no

- In *Program 1001 - Caller ID* (page 704), do not enter 3 to enable ANI-based Caller ID for the trunk.

Step 5: Do you want to use FSK-based Caller ID (if provided by telco) instead of ANI/DNIS?

If yes

- In *Program 1001 - Caller ID* (page 704), enter 1 to enable DSP Caller ID detection for the T1 trunk circuit.

If no

- In *Program 1001 - Caller ID* (page 704), do not enter 1 to enable DSP Caller ID detection for the T1 trunk circuit.

T1 Trunking

Programming List

T1 Programming

Program 0405 - T1/E1 Trunk Timers (page 661)

If necessary, set the value of timers shared by T1 and E1 trunks. You should always consult with your telco before changing timer values.

Program 0406 - T1 Trunk Timers (page 665)

If necessary, set the value of timers use exclusively by T1 trunks. You should always consult with your telco before changing timer values.

Program 1001 - Trunk Circuit Type (page 699)

T1 Trunking supports the circuit types listed in the following table. See the *Direct Inward Dialing* on page 155 and *Tie Lines* for more on those types of trunks. By default, all trunks on the T1 PCB are Loop Start DTMF (circuit type 51). The chart below shows the available T1 Trunk types.

1001-Trunk Circuit Types		
Circuit Type	Description	Entry
51	Loop Start DTMF	LOOP START DTMF
52	Loop Start Dial Pulse	LOOP STRT PULSE
53	Ground Start DTMF	GND START DTMF
54	Ground Start Dial Pulse	GND START PULSE
57	DID DTMF Wink Start	DID DTMF WINK
58	DID Dial Pulse Wink Start	DID PULSE WINK
59	DID DTMF Immediate Start	DID DTMF IMM
60	DID Dial Pulse Immediate Start	DID PULSE IMM
61	E&M DTMF Wink Start	E&M DTMF WINK
62	E&M Dial Pulse Wink Start	E&M PULSE WINK
63	E&M DTMF Immediate Start	E&M DTMF IMM
64	E&M Dial Pulse Immediate Start	E&M PULSE IMM

Note: OPX DTMF (circuit type 55) and OPX Dial Pulse (circuit type 56) trunks are currently not available.

Program 9904 - T1/E1 Configuration (page 807)

Use this option to set parameters for the T1 PCB. *Always review these options when setting up T1 Trunking.* The default setting is in parenthesis after each option.

- Clock Control (T1 PCB is the clock master)
- Transmit Pulse Amplitude (0 [0dB], the T1 PCB is within 133' of smart jack or CSU)
- Framing Type (ESF - Extended Super Frame)
- Zero Suppression (Enabled - B8ZS)
- Number of PCM Channels (0 - All channels active)¹
- Loopback (0 - No loopback options enabled)

¹This option always selects the lowest channels. For example, an entry of 8 uses channels 1-8. When connecting to a DSU and splitting voice and data channels, the voice channels must be the lower-numbered channels.

ANI/DNIS and Caller ID Programming

Program 1001 - Caller ID (page 704)

- Enter 3 to enable ANI-based Caller ID for the trunk.
OR
- Enter 1 to enable DSP Caller ID detection for the trunk (used with normal FSK-based Caller ID). Note that enabling DSP Caller ID disables ANI-based Caller ID.

Program 1001 - ANI/DNIS (page 704)

Use this option to specify the type of ANI/DNIS Caller ID data provided by T1 trunks. Set this option for compatibility with the incoming ANI/DNIS data provided by the local telco. By default, this option is 0 (No ANI/DNIS data). When entering data, the options are:

ANI/DNIS Data Format		
Option	Description	Entry
0	The DID trunk will not detect ANI/DNIS data.	NONE
1	The DID trunk will detect ANI data without using delimiters	ANI
2	The DID trunk will detect ANI data using a delimiter (*) at the beginning and end of the ANI Caller ID string.	*ANI*
3	The DID trunk will detect DNIS data without using delimiters.	*DNIS*
4	The DID trunk will detect both ANI and DNIS data using a delimiter (*) at the beginning and end of the string. An additional delimiter separates the ANI and DNIS data.	*ANI*DNIS*

Program 1001 - ANI Delimiter (page 705)

For ANI/DNIS format options 2-4 (see 1001 - ANIS/DNIS above), use this option to set the type of data delimiter provided by the telco. The delimiter designates the beginning and end of the ANI/DNIS data string. The delimiter can be any character 0-9, # or *. Always set this option for compatibility with the incoming ANI/DNIS data provided by the local telco. By default, the ANI delimiter is *.

Program 1001 - Number of ANI Digits (page 705)

For ANI/DNIS format option 1 (see 1001 - ANI/DNIS above), use this option to specify the number of digits in the ANI number. This is required for option 1 since delimiters do not mark the beginning and end of the data string. The system must know how many digits of incoming ANI Caller ID data to interpret. By default, this option is 10.

T1 Trunking

E1 Programming

Program 0101 - Outgoing ANI Privacy (page 624)

Use this option to enable (Y) or disable (N) the extension's ability to send outbound Automatic Number Identification (ANI) over E1 trunks using MFC dialing. ***This option only applies to outbound E1 calls using MFC dialing, and does not apply to systems installed in North America.*** By default, this option is disabled (N).

Program 0301 - A-Law Companding (page 636)

Use this option to enable (Y) or disable (N) A-Law Companding. Only enable this option when using E1 Trunks in a service area that requires A-Law Companding. ***Disable this option when the system is installed in North America.*** By default, this option is disabled (N).

Program 0405 - T1/E1 Trunk Timers (page 661)

If necessary, set the value of timers shared by T1 and E1 trunks. You should always consult with your telco before changing timer values.

Program 0407 - E1 Trunk Timers (page 667)

If necessary, set the value of timers used exclusively by E1 trunks. You should always consult with your telco before changing timer values.

Program 0408 - E1 MFC Timers (page 669)

If necessary, set the value of timers used exclusively by E1 MFC Dialing. You should always consult with your telco before changing timer values.

Program 1001 - Number of ANI Digits (page 705)

For E1 trunks only, use this option to specify the E1 Signal Type 0-9. Set this option for compatibility with the connected telco. By default, this option is 0. This option is not used in North America.

Program 1001 - E1 Signaling Type (page 705)

For E1 trunks only, use this option to specify the E1 Signal Type (0-9). Set this option for compatibility with the connected telco. This option is not used in North America.

Program 1001 - MFC Dialing Type (page 705)

For E1 trunks only, use this option to specify the MFC Dialing Type. The following table shows the available MFC Dialing Type choices, By default, this option is 0 (MFC Dialing not used). This option is not used in North America.

MFC Dialing Types	
Option	Description
0	MFC Dialing not used
1	ITU (International Telecommunication Union) Standard
2	Argentina
3	Brazil
4	Chile
5	Columbia
6	Mexico
7	Venezuela

Program 1001 - Enable MFC GB (page 706)

For E1 trunks only, use this option to enable (Y) or disable (N) the MFC Dialing Group B supervisory signaling. Since not all central offices provide Group B signaling, set this option for compatibility with the connected telco. By default, this option is Y(9). This option is not used in North America.

Program 1403 - DID MFC Dialing Category (page 736)

For E1 trunks only, use this option to set the MFC Dialing Category for each DID table entry. This option is not used in North America. By default, all table entries use normal MFC dialing (option 0). The available options are:

1403-DID MFC Dialing Category Options	
Option	Description
0	Normal
1	Without charge
2	Called Party Release

Program 1802 - Outgoing ANI ID (page 761)

For E1 trunks only, use this option to specify the outgoing ANI data that identifies the extension (1-4 digits appended to the system's telephone number). This option is only for E1 MFC dialing. It is not used in North America. The allowable entries are 0-9, #, and * (4 digits). By default, there is no outgoing ANI data entered.

Other Related Features

Direct Inward Dialing (page 155)

Directly dial system extensions from outside the system.

Tie Lines (page 542)

Link two systems together for inter-system Intercom calling and other features.

Feature Operation

None

Tandem Trunking / Unsupervised Conference

Description



DS1000/2000 || Available.



Join two callers in Conference, leave the call and let their conversation continue.

Tandem Trunking allows an extension user to join two outside callers in a trunk-to-trunk conference. The extension user can then drop out of the call, leaving the trunks in an Unsupervised Conference. The extension user that established the Conference is not part of the conversation. The Conference continues until either outside party hangs up.

Tandem Trunking uses a Conference circuit. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions

None

Default Setting

Tandem Trunking disabled.

Tandem Trunking / Unsupervised Conference

Programming Guide

Step-by-step guide for setting up Tandem Trunking / Unsupervised Conference

Step 1: Should trunk have the ability to be included in an Unsupervised Conference?

If yes

- In *Program 1003 - Tandem Trunk* (page 714), enter Y. Note that only one of the trunks in the tandem call must have this option enabled.
- In *Program 0402 - Far End Disconnect* (page 651), set the Far End Disconnect time for compatibility with the local telco.

If no

- In *Program 1003 - Tandem Trunk* (page 714), enter N. Note that only one of the trunks in the tandem call must have this option enabled.

Step 2: Do you want to use Trunk-to-Trunk Transfer to set up a tandem call?

If yes

- In *Program 0101 - Unsupervised Conference* (page 624), enter Y. See *Using Trunk-To-Trunk Transfer to Set Up a Tandem Call* on page 541 for more on this feature.

If no

- In *Program 0101 - Unsupervised Conference* (page 624), enter N.

Programming List

Program 0101 - Unsupervised Conference (page 624)

- Enable (Y) this option if the extension should be able to use Unsupervised Conference,
- Also enable this option to use Trunk-To-Trunk Transfer to set up a tandem call. See *Using Trunk-To-Trunk Transfer to Set Up a Tandem Call* on page 541 for more.
- This option ensures that enabling **1003-Tandem Trunk** for Off Premise Call Forwarding does also not inadvertently enable Unsupervised Conference.

Program 0402 - Far End Disconnect (page 651)

Set the Far End Disconnect time for compatibility with the local telco.

Program 1003 - Tandem Trunk (page 714)

Enabled (Y) or disable (N) the trunk's ability to be included in an Unsupervised Conference. Only one of the trunks in the tandem call must have this option enabled.

Tandem Trunking / Unsupervised Conference

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 56)

An extension user can Barge In on a tandem call.

Conference (page 142)

Group Listen (page 277)

Meet-Me Conference (page 365)

Privacy Release Groups (page 437)

Forced Trunk Disconnect (page 271)

An extension user can end an Unsupervised Conference by using Forced Trunk Disconnect on one of the trunks in the tandem call.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

Tandem Trunking is available at Single Line extensions.



Feature Operation

To set up a tandem call (Unsupervised Conference):

1. Establish trunk call.

 Conversation with caller.
 Line Key or Loop Key on.

2. Press **CONF**.

 Intercom dial tone.
 **ICM** on and Line/Loop Key flashing.



Your caller hears Music On Hold (if installed) while they wait for you to set up the Conference.

3. Place or answer trunk call

OR

Retrieve trunk call from Park Orbit.

4. Press **CONF** to set up the Conference.

 Conversation with your conferenced callers.
 Line/Loop Keys on (green).

If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.



5. Hang up.

 N/A
 Line/Loop Keys on (red)





If the outside parties disconnect, the trunks you selected do not have Tandem Trunking capability.

Tandem Trunking / Unsupervised Conference

To disconnect a tandem call (using Forced Trunk Disconnect):

1. Press line key for busy trunk.
OR
Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 101 for trunk 1).
 || Busy tone.
 || Line/loop key on (red).
Refer to Direct Trunk Access for the specifics.
2. Dial # to disconnect the line.
The tandem call disconnects.

To Barge In on a tandem call:

1. Press line key for busy trunk.
OR
Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 101 for trunk 1).
 || Busy tone.
 || Line/loop key on (red).
Refer to Direct Trunk Access for the specifics.
2. Dial 4.
 || You hear two beeps and you join the tandem call.
 || Line/loop keys on (green).
*You can optionally place the Conference on hold. Your callers hear Music on Hold (if installed) while waiting on Hold. Press **CONF** to reinstate the Conference.*

To set up Tandem Trunking at a Single Line Telephone:

1. Establish trunk call (e.g., lift handset, dial 9, and dial outside number).
2. Hookflash and dial another trunk call.
3. Hookflash and dial #10 to set up Conference.
4. Hang up.
If the outside parties disconnect, the trunks you selected do not have Tandem Trunking capability.

Using Trunk-To-Trunk Transfer to Set Up a Tandem Call

To set up a tandem call via trunk-to-trunk Transfer:



1. Place or answer a trunk call.
2. Press **ICM**.
3. Place a new trunk call.
4. Hang up to set up a tandem call between the initial call and the new call.

This procedure is available if:

- The new call in step 3 is an outgoing trunk call (not an incoming call or a call on Hold).
- Either the initial call (in step 1) or the new call (in step 3) must have **1003-Tandem Trunk** enabled (Y).
- The extension must have **Program 0101 - Unsupervised Conference** (page 624) enabled (Y). (This is not required when the system is automatically routing an Off-Premise Call Forward.) *Only enable this option if you need Unsupervised Conference.*

Tie Lines

Description

 DS1000	Not available.
 DS2000	Available.



Link two systems together for inter-system Intercom calling and other features.

Tie lines directly link a local DS2000 telephone system with one or more remote DS2000 systems. The link is independent of the telco's switched network. When a local system user seizes a tie line, they hear Intercom dial tone from the remote system. The user can then use whatever features are normally available to the remote system's single line telephones, including:

- Dialing Intercom extensions in the remote system.
- Using the remote system's trunks for outgoing calls.
- Accessing System Speed Dial bins in the remote system.
- Using the remote system's Paging.

Tie Lines require a T1 PCB and Tie Line service from the telco.

Conditions

None

Default Setting

Disabled

Programming Guide

Step-by-step guide for setting up Tie Lines
(Page 1 of 2)

Step 1: Set the circuit type for each DID trunk.

- Be sure your T1 PCB is installed and connected and that your telco is providing Tie Line service.
- In *Program 1001 - Trunk Circuit Type* (page 699), enter the correct circuit type for each Tie trunk:
 - 61 = E&M DTMF Wink Start
 - 62 = E&M Dial Pulse Wink Start
 - 63 = E&M DTMF Immediate Start
 - 64 = E&M Dial Pulse Immediate Start

Step 2: Assign the Tie Line caller's operator.

- In *Program 1003 - Extension's Operator* (page 714), assign the extension the incoming Tie Line caller reaches in the local system when they dial 0.

Step-by-step guide for setting up Tie Lines
(Page 2 of 2)

Step 3: Assign the Tie Line caller's dial 9 group.

- In *Program 1003 - Dial 9 Group* (page 714), specify the trunk group selected (0-8) when an incoming (remote) Tie Line caller dials 9 for an outgoing trunk in the local system.
- In *Program 1004 - Line Group Access* (page 716), be sure this option is enabled for the trunk group assigned in the previous bullet. If disabled, the incoming Tie Line caller will not be able to dial 9 for an outgoing trunk group.
- In *Program 1006 - Trunk Line Access* (page 718), be sure the access matrix you set up does not prevent callers from using the outgoing trunks you set up in the previous two bullets.

Tie Lines

Programming List

Program 1001 - Trunk Circuit Type (page 699)

Set the circuit type for each Tie trunk (see the following chart)

1001-Trunk Circuit Types		
Circuit Type	Description	Entry
61	E&M DTMF Wink Start	E&M DTMF WINK
62	E&M Dial Pulse Wink Start	E&M PULSE WINK
63	E&M DTMF Immediate Start	E&M DTMF IMM
64	E&M Dial Pulse Immediate Start	E&M PULSE IMM

Program 1003 - Dial 9 Group (page 714)

Use this option to specify the trunk group (0-8) selected when an incoming (remote) Tie Line callers dials 9 to place an outgoing trunk call. This is the trunk group in the local system used by the remote Tie Line caller for placing outgoing trunk calls. By default, this option is group 0. This means that when an incoming Tie Line caller dials 9 they will be connected to the first available trunk in group 0.

Program 1003 - Extension's Operator (page 714)

Use this option to specify the extension (300-427) reached in the local system when an incoming (remote) Tie Line caller dials 0. By default, this option is 300. This means that the remote Tie Line caller will ring the operator in the local system when they dial 0.

Program 1004 - Line Group Access (page 716)

Use this option to enable (Y) or disable (N) Trunk Group Access for incoming (remote) Tie Line callers. If enabled (Y) for a trunk Group, remote Tie Line callers will be able to use that group in the local system for outgoing trunk calls. You separately enable this option for each of the 9 trunk groups (0-8). By default, this option is enabled for each trunk group. (The access matrix you set up in *1006 - Trunk Line Access* below may limit which trunks Line Group Access can use.)

Program 1006 - Trunk Line Access (page 718)

Use this option to set up a trunk access matrix between each Tie Line trunk in the local system and each outgoing trunk in the local system. For each Tie Line (1-64), you can assign the access type for each of the 64 trunks in the local system. This option further restricts which local trunks an incoming (remote) tie line caller can access for outgoing calls. The access options are:

1006-Trunk Line Access Options	
Option	Description
0	No access
1	Incoming only
2	Outgoing only
3	Full access (incoming and outgoing)

By default, each trunk in the local system has full access (3) to every outgoing trunk in the local system.

Other Related Features

Direct Inward Dialing (page 155)

Directly dial system extensions from outside the system.

T1 Trunking (page 530)

T1 provides advanced digital trunking and simplifies installation. T1 Trunking is required for Tie Lines.

Feature Operation

Tie Line callers can use many of the features available to on-premise analog single line extensions.

Time and Date

Description



DS1000/2000 Available.



The time and date shows on telephone displays and prints on system reports.

The system Time and Date appears on:

- Display Telephones
- Station Message Detail Recording reports

The system administrator can change the time and date from the system programming mode. Although the data is entered in 24-hour format, it always displays in 12-hour format (e.g., 1300 = 1:00PM). The system can automatically adjust the time for Daylight Savings Time.

Conditions

The system retains the time and date after a system reset or short term power failure.

Default Setting

- 01:00:00 (1:00AM)
- 01/01/1998 (Thursday, January 1, 1998)
- The automatic Daylight Savings Time adjustment is enabled.

Programming Guide

Step-by-step guide for setting up Time and Date (Page 1 of 2)

Step 1: Do you want to change the system time?

If yes



- In *Program 0302 - Time* (page 639), enter the new system time (HH:MM:SS in 24 hour format).

If no



- In *Program 0302 - Time* (page 639), do not change the system time.

Step 2: Do you want to change the system date?

If yes



- In *Program 0302 - Date* (page 640), enter the new system date (MM:DD:YYYY). For example, enter 01012000 for January 1, 2000.

If no



- In *Program 0302 - Date* (page 640), do not change the system date.

Step-by-step guide for setting up Time and Date (Page 2 of 2)

Step 3: Do you want to automatically adjust the time for Daylight Savings Time?

If yes

- In *Program 0302 - Daylight Savings Time Adjustment* (page 640), enter Y.

If no

- In *Program 0302 - Daylight Savings Time Adjustment* (page 640), enter N.

Step 4: Do you want to change the Time and Date display format?

If yes

- In *Program 0302 - Time and Date Format* (page 640), select a new format (0-7). See the chart in *Programming List* for the available Time and Date format entries.

If no

- Skip this option.

Programming List

Program 0302 - Time (page 639)

Enter the system time.

Program 0302 - Date (page 640)

Enter the system date.

Program 0302 - Daylight Savings Time Adjustment (page 640)

If enabled (Y), the system will automatically adjust the time for Daylight Savings Time. If disabled (N), the adjustment will not occur.

Program 0302 - Time and Date Format (page 640)

Use this option to change the format of a display keyset's Time and Date display. The following chart summarizes the available entries.

0302-Time and Date Options (Using Tuesday, 4/8/2003, 4:44PM as an Example)	
Option	Display Format
0	8 APR TUE 4:44PM
1	4:44PM APR 8 TUE
2 (Default)	4-8 TUE 4:44PM
3	4:44PM TUE 8 APR
4	8 APR TUE 16:44
5	16:44 APR 8 TUE
6	4-8 TUE 16:44
7	16:44 TUE 8 APR

Note: After changing the entry for the Time and Date format, an extension user must either lift and replace the handset or receive an incoming call before their display will show the new format.

Time and Date

Other Related Features

Battery Backup (page 58)

The battery on the CPU PCB backs up the CPU Real Time Clock for 10-14 days.


Station Message Detail Recording (page 498)

Time and date appear on the SMDR report.

Year 2000 Compliance (page 610)

The system is fully Y2K (year 2000) compliant. The year always displays as four digits and the system correctly recognizes leap years.

Feature Operation

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Time and Date	#TD	#TD + Enter time in 24-hour clock using hours (2 digits), minutes (2 digits) and seconds (2 digits) + HOLD + Enter date using month (2 digits), day (2 digits) and year (4 digits) + HOLD + SPK to exit.	4 and 5

Description



DS1000/2000

- Separately initializing Toll Restriction for North American or Latin American applications requires software version 03.10.08 or higher.
- The system provides a total of 600 table entries shared by Toll Restriction and the Caller ID Dial Treatments. Each 3-digit code you enter uses 1 entry; each 6-digit code uses two entries.



Use Toll Restriction to help you control the costs of outgoing long distance calls.

For some common Toll Restriction examples, turn to page 556.

Toll Restriction limits the numbers an extension user may dial. By allowing extensions to place only certain types of calls, the system administrator can control long distance costs. The system applies Toll Restriction according to an extension's Toll Restriction Level. For each of the 7 Toll Restriction Levels, the administrator can enable or disable the following options.

- **Active Dial Pad (Continuous Dialing)**
Active Dial Pad continuously enables the telephone dial pad. This is important if co-workers typically use dial-up services (such as automated banking) or frequently dial into Voice Mail systems. With Active Dial Pad disabled, the system disables the telephone dial pad 6 seconds after the user has dialed their last digit. Toll Restriction controls Active Dial Pad for both incoming and outgoing calls.
- **N11 Dialing**
N11 Dialing enables or disables an extension's ability to use N11 services such as directory assistance (411) and repair (611). Consider enabling this option if the connected telco charges by the call (i.e., meters) these services. *Note that the system never restricts a user from dialing 911 or 1 + 911.*
- **0 + Dialing**
0 + Dialing enables or disables an extension's ability to manually dial 0 + (operator assisted) calls. These calls typically include collect calls and credit card calls. Be sure to disable this option if you don't want co-workers making these types of calls. The setting of 0 + Dialing does not affect the operation of international dialing (see the option immediately following).
- **International (011) Dialing**
Use the International Dialing option to restrict extension access to high-cost international (011) dialing. You can, for example, enable international dialing for high priority users and executives while disabling international dialing for all other co-workers.
- **Equal Access (1010 + XXX) Dialing**
Equal Access allows users to select long distance carriers other than your primary carrier. Your primary carrier is the long distance provider you access when you seize a trunk and dial 1. To reach another provider, dial 1010 and that provider's three-digit code (e.g., 1010220). The system does not restrict the numbers dialed after the Equal Access code, but can prevent users from dialing specific Equal Access codes.
- **1 + Dialing**
This type of Toll Restriction can restrict:
 - 1 + 3-digit (1 + NPA and 1 + NXX) dialing.
 - 1 + 6-digit (1 + NPA + NXX) dialing.
- **Dialing without a Leading 1**
This type of Toll Restriction can restrict:
 - 3-digit (NPA and NXX) dialing.
 - 6-digit (NPA + NXX) dialing.

Toll Restriction

The Toll Restriction Tables

There are 5 separate tables (for each Toll Restriction Level) that individually restrict:

- Equal Access Dialing
- Calls dialed *with* a leading 1 (1 + Dialing)
- Calls dialed *without* a leading 1

The following chart summarizes these tables.

Enhanced Toll Restriction Tables		
Dialing Type	Program	Description
Equal Access Dialing	<i>Program 0602 - 1010 + XXX Equal Access Dialing on page 686</i>	Lookup table that restricts 1010 + XXX dialing. Can be set up as an allow or deny table. <i>Example¹: <u>1010 220</u> 203 926 5400</i>
1 + Dialing	<i>Program 0603 - 1 + NPA/NXX Dialing 3-Digit Table on page 688</i>	3-digit lookup table that handles restriction for 1 + NPA and 1 + NXX dialing. Can be set up as an allow or deny table. <i>Example¹: 1 <u>203</u> 926 5400</i>
	<i>Program 0604 - 1 + NPA + NXX Dialing 6-Digit Table on page 690</i>	6-digit lookup table that handles 1 + NPA + NXX dialing. Can be set up as an allow or deny table. <i>Example¹: 1 <u>203 926</u> 5400</i>
Dialing without a leading 1	<i>Program 0605 - NPA/NXX Dialing 3-Digit Table on page 692</i>	3-digit lookup table that handles NPA and NXX dialing. Can be set up as an allow or deny table. <i>Example¹: <u>203</u> 926 5400</i>
	<i>Program 0606 - NPA + NXX Dialing 6-Digit Table on page 694</i>	6-digit lookup table that handles NPA + NXX dialing. This is a deny-only table. <i>Example¹: <u>203 926</u> 5400</i>

¹ The **underline bold** digits are the digits looked up by the specified table for the type of call dialed.

Toll Restriction Overview

- **When you dial: Telephone Banking**
Continued Dialing (Active Dial Pad) is enabled or disabled by the setting of 0601 - Active Dial Pad.
- **When you dial: 411, 811**
N11 Dialing is enabled or disabled by the setting of 0601 - N11 Dialing.
- **When you dial: 0 203 926 5400**
0+ Dialing is enabled or disabled by the setting of 0601 - 0 + Dialing.
- **When you dial: 011 International Calls**
International (011) Dialing is enabled or disabled by the setting of 0601 - International Dialing.
- **When you dial: 1015 220 203 926 5400**
*Equal Access (101X XXX) Dialing is enabled or disabled in 0601 - 101X Dialing,
- This option restricts Equal Access Codes 1011 through 1019 and has no affect on the more common 1010 XXX Equal Access Codes.*
- **When you dial: 1010 220 203 926 5400**
*Equal Access (1010 XXX) Dialing is controlled by the Equal Access codes entered in 0602 - 1010 + XXX Equal Access Dialing Table.
- The table entries have no affect on the less common 101X XXX Equal Access dialing.*

- **When you dial: 1 800 365 1928, 1 900 555 1212, 1 926 5400**
1 + NPA and 1 + NXX dialing is controlled by the entries in 0603 - 1 + NPA/NXX Dialing 3-Digit Table and 0604 - 1 + NPA + NXX Dialing 6-Digit Table.
- These tables work together. For example, you can deny an NPA in 0603 and allow a specific NPA + NXX combination in 0604.
- **When you dial: 203 926 5400, 926 5400**
NPA and NXX dialing (without the leading 1) is controlled by the entries in 0605 - NPA/NXX Dialing 3-Digit Table and 0606 - NPA + NXX Dialing 6-Digit Table.
- These tables work together. For example, you can allow an NPA in 0605 and deny a specific NPA + NXX combination in 0606.

Default Toll Restriction Configuration

When you assign a Toll Level to an extension, the extension has the following Toll Restriction by default:

- **Active Dial Pad** is enabled.
- **N11 Dialing** is enabled.
- **0 + Dialing** is enabled.
- **International (011) Dialing** is enabled.
- **Equal Access (101X + XXX) Dialing** is enabled.
- **Equal Access (1010 + XXX) Dialing** is enabled without restriction because the *1010 + XXX Equal Access Table* is a deny table with no entries (i.e., it denies nothing).
- **1 + NPA/NXX Dialing** is enabled without restriction because the *1 + NPA/NXX Dialing 3-Digit* and *1 + NPA + NXX Dialing 6-Digit Tables* are deny tables with no entries (i.e., they deny nothing).
- **NPA/NXX Dialing** and **NPA + NXX Dialing** are enabled without restriction because the *NPA/NXX Dialing 3-Digit Table* is a deny table with no entries (i.e., it denies nothing). In addition, the *NPA + NXX Dialing 6-Digit Table* does not restrict because it is a deny table with no entries (i.e., it also denies nothing).

Conditions

None

Default Setting

See Default Toll Restriction Configuration above.

Toll Restriction

Programming Guide

!! Important !!

- You should initialize programs 0601 through 0606 prior to programming.
- Initializing program 0601 automatically initializes programs 0602 through 0606, *as well programs 1303 through 1305.*
- *Do not initialize Toll Restriction for Latin America if the system is installed in North America.*
- Programs 0602 through 0606 can be individually initialized, if required.

Step-by-step guide for setting up Toll Restriction (Page 1 of 3)

Step 1: Do you want to enable Active Dial Pad (Continuous Dialing)?

If yes



- In *Program 0601 - Active Dial Pad* (page 683), enter Y.

If no



- In *Program 0601 - Active Dial Pad* (page 683), enter N.

Step 2: Do you want to enable N11 dialing?

If yes



- In *Program 0601 - N11 Dialing* (page 684), enter Y.

If no



- In *Program 0601 - N11 Dialing* (page 684), enter N. Note that 911 and 1 + 911 calls are never restricted.

Step 3: Do you want to enable 0+ (Operator Assisted) dialing?

If yes



- In *Program 0601 - 0+ Dialing* (page 684), enter Y.

If no



- In *Program 0601 - 0+ Dialing* (page 684), enter N.

Step 4: Do you want to enable International (011) Dialing?

If yes



- In *Program 0601 - International (011) Dialing* (page 684), enter Y.

If no



- In *Program 0601 - International (011) Dialing* (page 684), enter N.

Step-by-step guide for setting up Toll Restriction (Page 2 of 3)

Step 5: Do you want to enable the dialing of Equal Access Codes 1011 through 1019?

If yes

- In *Program 0601 - Equal Access (101X + XXX) Dialing* (page 684), enter Y.

If no

- In *Program 0601 - Equal Access (101X + XXX) Dialing* (page 684), enter N.

Step 6: Do you want to allow or restrict Equal Access 1010 + XXX dialing?

If yes

- In *Program 0602 - 1010 + XXX Equal Access Dialing* (page 686), set up the Equal Access dialing table. By default, this type of dialing is enabled because the 1010 + XXX table is a deny table with no entries (i.e., it denies nothing).

If no

- In *Program 0602 - 1010 + XXX Equal Access Dialing* (page 686), make no entries.

Step 7: Do you want to allow or restrict 1 + NPA or 1 + NXX dialing?

If yes

- In *Program 0603 - 1 + NPA/NXX Dialing 3-Digit Table* (page 688), set up this 1 + 3-digit dialing table. By default, this type of dialing is enabled because the 1 + NPA/NXX Dialing 3-Digit Table is a deny table with no entries (i.e., it denies nothing).

If no

- In *Program 0603 - 1 + NPA/NXX Dialing 3-Digit Table* (page 688), make no entries.

Step 8: Do you want to allow or restrict 1 + NPA + NXX dialing?

If yes

- In *Program 0604 - 1 + NPA + NXX Dialing 6-Digit Table* (page 690), set up this 6-digit dialing table. By default, this type of dialing is enabled because the 1 + NPA + NXX Dialing 6-Digit Table is a deny table with no entries (i.e., it denies nothing).

If no

- In *Program 0604 - 1 + NPA + NXX Dialing 6-Digit Table* (page 690), make no entries.

Toll Restriction

Step-by-step guide for setting up Toll Restriction (Page 3 of 3)

Step 9: Do you want to allow or restrict NPA or NXX dialing?

If yes

- In *Program 0605 - NPA/NXX Dialing 3-Digit Table* (page 692), set up this 3-digit dialing table. By default, this type of dialing is enabled because the *NPA/NNX Dialing 3-Digit Table* is a deny table with no entries (i.e., it denies nothing).

If no

- In *Program 0605 - NPA/NXX Dialing 3-Digit Table* (page 692), make no entries.

Step 10: Do you want to set up additional NPA + NXX dialing restrictions?

If yes

- In *Program 0606 - NPA + NXX Dialing 6-Digit Table* (page 694), set up this 6-digit dialing table. By default, this table provides no additional dialing restriction because the *NPA + NNX Dialing 6-Digit Table* is a deny table with no entries (i.e., it denies nothing).

If no

- In *Program 0606 - NPA + NXX Dialing 6-Digit Table* (page 694), make no entries.

Step 11: Assign the Toll Level to an extension.

- In *Program 1801 - Extension Toll Level Day* (page 755), assign the day mode Toll Level to the extension.
- In *Program 1801 - Extension Toll Level Night* (page 755), assign the night mode Toll Level to the extension.

Programming List

!! Important !!
<ul style="list-style-type: none">• You should initialize programs 0601 through 0606 prior to programming.• Initializing program 0601 automatically initializes programs 0602 through 0606, <i>as well programs 1303 through 1305.</i>• <i>Do not initialize Toll Restriction for Latin America if the system is installed in North America.</i>• Programs 0602 through 0606 can be individually initialized, if required.

Program 0601 - Active Dial Pad (page 683)

Use this option to enable (Y) or disable (N) Active Dial Pad (continuous dialing) for trunk calls. This option is enabled (Y) by default.

Program 0601 - N11 Dialing (page 684)

Use this option to enable (Y) or disable (N) dialing N11 services such as directory assistance (411) and repair (611). This option does not restrict 911 or 1 + 911 calls. These calls are always allowed. This option is enabled (Y) by default.

Program 0601 - 0+ Dialing (page 684)

Use this option to enable (Y) or disable (N) an extension's ability to manually dial 0+ (operator assisted) calls. This option is enabled (Y) by default.

Program 0601 - International (011) Dialing (page 684)

Use this option to enable (Y) or disable (N) 011 (international) dialing. This option is enabled (Y) by default.

Program 0601 - Equal Access (101X + XXX) Dialing (page 684)

Use this option to enable (Y) or disable (N) the dialing of Equal Access Codes 1011 through 1019. It has no affect on the more common 1010 XXX Equal Access Codes. Use *0602 - 1010 + XXX Equal Access Dialing* to restrict the more common 1010 codes. This option is enabled (Y) by default.

Program 0602 - 1010 + XXX Equal Access Dialing (page 686)

Use this option to set up to 1010 + XXX Equal Access dialing table. By default, this type of dialing is enabled because the 1010 + XXX table is a deny table with no entries (i.e., it denies nothing).

Program 0603 - 1 + NPA/NXX Dialing 3-Digit Table (page 688)

Use this option to set up the 1 + NPA/NNX Dialing 3-Digit Table. By default, this type of dialing is enabled because the 1 + NPA/NNX Dialing 3-Digit Table is a deny table with no entries (i.e., it denies nothing).

Program 0604 - 1 + NPA + NXX Dialing 6-Digit Table (page 690)

Use this option to set up the 1 + NPA + NNX Dialing 6-Digit Table. By default, this type of dialing is enabled because the 1 + NPA + NNX Dialing 6-Digit Table is a deny table with no entries (i.e., it denies nothing).

Program 0605 - NPA/NXX Dialing 3-Digit Table (page 692)

Use this option to set up the NPA/NXX Dialing 3-Digit Table. By default, this type of dialing is enabled because the NPA/NXX Dialing 3-Digit Table is a deny table with no entries (i.e., it denies nothing).

Program 0606 - NPA + NXX Dialing 6-Digit Table (page 694)

Use this option to set up the NPA + NXX Dialing 6-Digit Table. By default, this table provides no additional restriction because it is a deny table with no entries (i.e., it denies nothing).

Program 1801 - Extension Toll Level Day (page 755)

Use this option to assign a day mode Toll Level to an extension.

Program 1801 - Extension Toll Level Night (page 755)

Use this option to assign a night mode Toll Level to an extension.

Toll Restriction

Some Common Toll Restriction Examples

Note that the following 4 examples can be simultaneously programmed in the same system – just don't reinitialize the Toll Restriction Tables in examples 2-4.

Example 1: Allowing Only Local Calling

Allow users to dial only 7-digit and 10-digit local numbers. All 1 + 7 digit, 1 + 10 digit, 0+, and Equal Access dialing is restricted.

1. Use *0601 - Configure Toll Level Options* to initialize Toll Restriction (and Toll Restriction Tables *0602* through *0606*) for U.S. applications.
2. Make sure the following are disabled:
 - *0601 - 0+ Dialing*
 - *0601 - International (011) Dialing*
 - *0601 - Equal Access (101X + XXX) Dialing*
3. For Toll Level 1, be sure the following tables are set as allow tables with no entries. (This setting blocks all calls of the type specified by each table.)
 - *0602 - Equal Access (101X + XXX) Dialing*
 - *0603 - 1 + NPA/NXX Dialing 3-Digit Table*
 - *0604 - 1 + NPA + NXX Dialing 6-Digit Table*
4. In *0605 - NPA/NXX Dialing 3-Digit Table*, make the table a deny table with no entries. (This will allow unrestricted dialing of 7-digit and 10-digit local numbers.)
5. In *0606 - NPA + NXX Dialing 6-Digit Table*, initialize it to make sure it has no entries. (It is fixed in programming as a deny table.)

Example 2: Setting Up 10-Digit Local Calling

Restrict 1 + 203 calls in a neighboring (foreign) area code, but allow 203 10-digit calls in the home area code.

1. Use *0601 - Configure Toll Level Options* to initialize Toll Restriction (and Toll Restriction Tables *0602* through *0606*) for U.S. applications.
2. For Toll Level 2, be sure Toll Restriction Tables *0602* through *0605* are deny tables with no entries. (This will allow unrestricted dialing.)
3. In *0603 - 1 + NPA/NXX Dialing 3-Digit Table*, add code 203.
4. In *1801 - Extension Toll Level Day* and *1801 - Extension Toll Level Night*, assign Toll Level 2 to extensions.

Example 3: Preventing 1 + 900 Pay-Per-Call Charges

Restrict 1 + 900 calls.

1. Use *0601 - Configure Toll Level Options* to initialize Toll Restriction (and Toll Restriction Tables *0602* through *0606*) for U.S. applications.
2. For Toll Level 3, be sure Toll Restriction Tables *0602* through *0605* are deny tables with no entries. (This will allow unrestricted dialing.)
3. In *0603 - 1 + NPA/NXX Dialing 3-Digit Table*, add code 900.
4. In *1801 - Extension Toll Level Day* and *1801 - Extension Toll Level Night*, assign Toll Level 3 to extensions.

Example 4: Permitting Only Toll-Free Dialing

Allow only 1 + 800 long distance calls.

1. Use *0601 - Configure Toll Level Options* to initialize Toll Restriction (and Toll Restriction Tables *0602* through *0606*) for U.S. applications.
2. For Toll Level 4, be sure Toll Restriction Tables *0602*, *0604*, and *0605* are deny tables with no entries. (This will allow unrestricted dialing.)

3. In *0603 - 1 + NPA/NXX Dialing 3-Digit Table*, set this table up as an allow table and add code 800.
4. In *1801 - Extension Toll Level Day* and *1801 - Extension Toll Level Night*, assign Toll Level 4 to extensions.

Other Related Features

Direct Trunk Access (page 191)

Direct Trunk Access does not bypass Toll Restriction.

Flash (page 264)

When an extension user with Toll Restriction enabled flashes a trunk, the system enforces toll Restriction on any digits the user dials from the new dial tone. For example, if an extension user cannot dial 203 926 5400 before they flash, they cannot dial 203 926 5400 after they flash.

Forced Trunk Disconnect (page 271)

Forced Trunk Disconnect does not bypass Toll Restriction.

Last Number Redial (page 351)

Last Number Redial will not store a number denied by Toll Restriction.

Private Line (page 440)

Toll Restriction restricts Private Lines just like any other trunk.

Regional Defaults (page 455)

Changing the Regional Default to Latin America automatically enables the Latin American Toll Restriction package. *Latin American Toll Restriction is not included in this manual.*

Save Number Dialed (page 468)

Save Number Dialed will not store a number denied by Toll Restriction.

Speed Dial (page 481)

The system enforces Toll Restriction on Speed Dial numbers as they are dialed, not as they are stored.

Feature Operation

Toll Restriction operation is automatic.

Transfer

Description



DS1000/2000

Available.



Send the trunk call you are on to a co-worker.

Transfer permits an extension user to send (i.e., extend) an active trunk call to any other extension in the system, a Ring Group, UCD Hunting Group or Voice Mail. With Transfer, any extension user can quickly send a call to the desired co-worker. A call a user transfers automatically recalls if not picked up at the destination extension. If still unanswered, the call diverts to Key Ring. This assures that users do not lose or inadvertently abandon their transfers.

The system allows the following types of transfers:

- **Screened Transfer**
The transferring user announces the call to the destination before hanging up.
- **Unscreened Transfer**
The transferring party extends the call without an announcement.

The system cannot Transfer Intercom calls.

Distinctive Flash Rate on Recall

Transfer recall features a distinctive flash rate for line keys (see the chart below). This allows the keyset extension user to easily differentiate new calls that are ringing from transferred calls that are recalling.


Distinctive Flash Rate on Transfer Recall	
For this type of call:	You see this flash rate:
Call that you Transferred	Slow Flash (Red)
Call that you initially Transferred <u>recalling</u> your phone	Double Wink On (Green)

Enhanced Recall Display

The Transfer recall display identifies:

- The type of call recalling the extension.
- The extension to which the call was initially transferred.

Following are sample Transfer recall displays. In the first example, the call was transferred by extension 301 (which does not have a name). In the second example, the call was transferred by extension 300 (which has the name *ATTENDANT*).



```
Transfer Recall
STA 301
```



```
Transfer Recall
300: ATTENDANT
```

The Transfer recall display occurs as the call is ringing the extension that initially transferred it, and after the call diverts to Key Ring.

Handsfree Transfer

Handsfree Transfer allows an extension user to Transfer a trunk call directly to the speakerphone of a co-worker.

Interaction Between Call Forwarding, Extension Hunting, and Transfer Recall

The following chart shows how the system handles Transfer Recall call routing when both Call Forwarding and Extension Hunting are enabled at the destination extension. *Call Forwarding has priority over Extension Hunting.*

Call Forwarding and Type 1 (Ring No Answer Trunk) Extension Hunting			
Forwarding Type	Destination Extension		
	Ring No Answer	Busy	In DND
Busy/No Answer *32	<ul style="list-style-type: none"> Call rings destination for the 0401-Transfer Recall interval. If unanswered, it rings the forwarding destination for the 0403-Call Forward Ring No Answer interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	<ul style="list-style-type: none"> Call rings the forwarding destination for the 0401-Transfer Recall interval. If unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	
Immediate *34	<ul style="list-style-type: none"> Call rings the forwarding destination for the 0401-Transfer Recall interval. If unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 		
No Answer *36	<ul style="list-style-type: none"> Call rings destination for the 0401-Transfer Recall interval. If unanswered, it rings the forwarding destination for the 0403-Call Forward Ring No Answer interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	<ul style="list-style-type: none"> Call Camps-On to the destination for the 0403-Call Forward Ring No Answer interval. If unanswered, call rings the forwarding destination for the 0403-Call Forward Ring No Answer Interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	
Forwarding Off *30	<ul style="list-style-type: none"> Call rings destination for the 0401-Transfer Recall interval. If unanswered, it rings the hunt destination for the 0403-Call Forward Ring No Answer interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	<ul style="list-style-type: none"> Call Camps-On to the destination for the 0403-Call Forward Ring No Answer interval. If unanswered, call rings the hunt destination for the 0403-Call Forward Ring No Answer Interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	

Call Forwarding and Type 2 (Ring No Answer / Busy Trunk) Extension Hunting and Call Forwarding and Type 3 (Ring No Answer / Busy All) Extension Hunting			
Forwarding Type	Destination Extension		
	Ring No Answer	Busy	In DND
Busy/No Answer *32	<ul style="list-style-type: none"> Call rings destination for the 0401-Transfer Recall interval. If unanswered, it rings the forwarding destination for the 0403-Call Forward Ring No Answer interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	<ul style="list-style-type: none"> Call rings the forwarding destination for the 0401-Transfer Recall interval. If unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	
Immediate *34	<ul style="list-style-type: none"> Call rings the forwarding destination for the 0401-Transfer Recall interval. If unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 		
No Answer *36	<ul style="list-style-type: none"> Call rings destination for the 0401-Transfer Recall interval. If unanswered, it rings the forwarding destination for the 0403-Call Forward Ring No Answer interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	<ul style="list-style-type: none"> Call Rings the hunt destination for the 0403-Call Forward Ring No Answer interval. If unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 	
Forwarding Off *30	<ul style="list-style-type: none"> Call rings destination for the 0401-Transfer Recall interval. If unanswered, it rings the hunt destination for the 0403-Call Forward Ring No Answer interval. If still unanswered, it rings the initial transferring destination for the 0403-Call Forward Ring No Answer interval and then diverts to Key Ring. 		

Transfer

Conditions

None

Default Setting

- Enabled
- Music On Hold for transferred callers is disabled.

Programming Guide

Step-by-step guide for setting up Transfer (Page 1 of 2)

Step 1: Does an unanswered Transfer ring an idle destination extension or Ring Group long enough before recalling the extension that initially transferred it?

If yes

- In *Program 0401 - Transfer Recall* (page 642), leave the Transfer Recall interval at its currently assigned value.

If no

- In *Program 0401 - Transfer Recall* (page 642), change the Transfer Recall interval to meet the site requirements.

Step 2: Does an unanswered Transfer Camp-On to a busy destination extension long enough before recalling the extension that initially transferred it?

If yes

- For a non-operator keyset:
In *Program 0403 - Call Forward Ring No Answer* (page 655), leave the Call Forward Ring No Answer interval at its currently assigned value.
- For an operator keyset:
In *Program 0401 - Transfer Recall* (page 642), leave the Transfer Recall interval at its currently assigned value.

If no

- For a non-operator keyset:
In *Program 0403 - Call Forward Ring No Answer* (page 655), change the Call Forward Ring No Answer interval to meet the site requirements.
- For an operator keyset:
In *Program 0401 - Transfer Recall* (page 642), change the Transfer Recall interval to meet the site requirements.

Step-by-step guide for setting up Transfer (Page 2 of 2)

Step 3: If a transferred call is not picked up, recalls the transferring extension, and is still not picked up, does it divert to Key Ring after the proper interval?

If yes

- In *Program 0401 - Trunk Revert* (page 644), leave the Trunk Revert interval at it's currently assigned value.

If no

- In *Program 0401 - Trunk Revert* (page 644), change the Trunk Recall interval to meet the site requirements.

Step 4: If a user transfers a call into a busy UCD Hunting group, does it divert to the overflow destination (if programmed) after the proper interval?

If yes

- In *Program 0401 - ACD/UCD Overflow* (page 644), leave the ACD/UCD Overflow interval at it's currently assigned value.

If no

- In *Program 0401 - ACD/UCD Overflow* (page 644), change the ACD/UCD Overflow interval to meet the site requirements.

Step 5: While a transferred caller is waiting to be picked up, should they hear Music on Hold instead of ringback?

If yes

- In *Program 0201 - Music on Hold* (page 628), enter Y for this option to enable Music on Hold system-wide.
- *Program 0201 - MOH on Transfer* (page 628), enter Y for this option to enable Music on Hold for transferred callers.

If no

- In *Program 0201 - MOH on Transfer* (page 628), enter N for this option to disable Music on Hold for transferred callers.

Programming List

Program 0201 - Music on Hold (page 628)

Enter Y for this option to enable Music on Hold system-wide (if you also enabled *MOH on Transfer* below).

Program 0201 - MOH on Transfer (page 628)

Enter Y for this option to enable Music on Hold for transferred callers.

Program 0401 - Transfer Recall (page 642)

Set how long a transferred call rings an idle destination extension or Ring Group before recalling the extension from which it was initially transferred. In addition, use this timer to set how long a transferred call rings a busy operator extension before recalling the extension from which it was initially transferred.

Program 0401 - Trunk Revert (page 644)

Sets how long a Transfer Recall rings the extension that initially transferred the call before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line.

Transfer

Program 0401 - ACD/UCD Overflow (page 644)

Set how long a transferred call (or DIL) camps on to a busy UCD Hunt Group before ringing the overflow destination.

Program 0403 - Call Forward Ring No Answer (page 655)

Use this timer to set how long a transferred call rings a busy non-operator extension before recalling the extension from which it was initially transferred.

Other Related Features

Call Forwarding (page 63)

Call Forwarding will reroute transferred calls.

Call Coverage Keys (page 59)

An extension user can Transfer a call to the covered extension by pressing the Call Coverage key.

Call Waiting / Camp-On (page 88)

Transfer can automatically Camp-On to a busy extension.

Direct Station Selection (DSS) (page 177)

You can press your DSS key to Transfer a call instead of dialing a co-worker's extension number.

Do Not Disturb (page 220)

DND blocks Transfer.

Extended Ringing (page 237)

With Extended Ringing enabled, transferred trunks ring the destination extension for the *Number of Extended Rings* before recalling the transferring extension.

Extension Hunting (page 239)

Trunk calls transferred to a Terminal or Circular Hunting group member activate hunting. In addition, trunk calls transferred to a UCD group master number activate hunting.

Group Call Pickup (page 273)

A trunk call transferred to an extension in a Pickup Group activates Group Call Pickup.

Group Ring (page 279)

An extension user can Transfer a call to a Ring Group master number. If unanswered, the call will recall the extension from which it was transferred.

Hold (page 296)

If an extension receiving a screened Transfer answers the screen and immediately hangs up (before the transferring extension), the call goes on Exclusive Hold at the transferring extension.

Hotline (page 302)

An extension user can Transfer a call to their Hotline partner by pressing their Hotline key.

Intercom (page 339)

The system cannot Transfer Intercom calls.

Key Ring (page 344)

An unanswered call transferred to an extension diverts to Key Ring if unanswered at the transferring extension.

Music on Hold (page 381)

With Music on Hold enabled, transferred callers can optionally listen to ringback or MOH while their call waits at the transfer destination. Music on Hold will also play to transferred callers camped-on to a busy UCD Hunting Group.

Off-Hook Signaling (page 394)

An extension user can Transfer their current call to a co-worker or Voice Mail and then answer the waiting call. In addition, transferred calls can initiate Off-Hook Signaling.

Reverse Voice Over (page 459)

While idle, an extension user can use their Reverse Voice Over key to Transfer calls.

Station Message Detail Recording (page 498)

The system assigns the SMDR record to the last extension on the call. For example, if extension 306 answers the call, talks for 20 minutes, and then Transfers the call to extension 302, extension 302 "owns" the entire call record as soon as they hang up.



Voice Over (page 600)

An extension user can Voice Over after making a Screened Transfer and hearing busy/ring tone.



Feature Operation

To Transfer your call:



You cannot Transfer Intercom calls.

1. Do not hang up.
2. Press **ICM**.
 || Intercom dial tone.
 || **ICM** and **SPK** on
You can press your Call Coverage or Hotline key instead of ICM.
3. Dial your co-worker's extension.
OR
Press a DSS key.
OR
Dial a Ring Group or UCD Hunting group master number.
4. Announce call to make a Screened Transfer.
OR
Press the flashing line key to return to the call if your co-worker doesn't want it (i.e., rejects your screen).
OR
Hang up to send the call through Unscreened.
The call will recall to you if unanswered at the destination extension. If you don't answer the recall, it diverts to Key Ring.

To Transfer your call to a co-worker's mailbox:

1. Do not hang up.
2. Press **ICM**.
 || Intercom dial tone.
 || **ICM** and **SPK** on
You can press your Call Coverage or Hotline key instead of ICM.
3. Dial your co-worker's extension.
4. Press **MW**.
5. Hang up.

To transfer a call to a co-worker's speakerphone (i.e., use Handsfree Transfer):

1. While on a trunk call, press **ICM** and dial your co-worker's extension number.
OR
Press Hotline key for your co-worker.
 || Two beeps.
 || **ICM** and **SPK** on
*Listen for two beeps. This indicates that your Transfer announcement has voice-announced at your co-worker's extension.
If your co-worker's phone is set up to ring instead of Voice Announce, you cannot use Handsfree Transfer.*
2. Press **FLASH** to send the call directly to your co-worker's speakerphone.
OR
Press **ICM** to get Intercom dial tone and select another co-worker for the Transfer.

Trunk Group Routing

Description



DS1000

DS2000

- See *Default Setting* below for specifics on the initial trunk setup.
- **Dial 9 is enabled** by default.
- See *Default Setting* below for specifics on the initial trunk setup.
- **Dial 9 is enabled** by default is software version 03.10.08 or higher. It is undefined in prior 03.**.** versions.



Dial a single code to place a call over the first available trunk in a trunk group.

With Trunk Group Routing enabled, an extension user can just press **ICM** and dial 9 to place a trunk call. Trunk Group Routing automatically selects the first available trunk in the extension's programmed "dial 9" trunk group. This simplifies placing calls in systems that have a lot of trunks for outgoing calls. Rather than press one of many line keys, the user just dials 9 instead.

Conditions

- Systems using Trunk Groups or Trunk Group Access should use the hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.
- If you include a trunk in your "dial 9" group that is not physically connected, when a user dials 9 the system will:
 - Try the trunk up to 5 times.
 - Mark it as failed.
 - Automatically exclude it from the "dial 9" group.

Default Setting

DS2000

- Trunks 1-12 ring on line keys 1-12 for extensions 300-315. All other extensions are lamp only for trunks 1-12. Trunks 13-64 do not appear on line keys.
- All extensions have full access on all trunks.
- Trunk Group Routing (dial 9) is assigned to trunk group 90 (which contains trunks 1-8). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
 - Order 1 = trunk 8
 - Order 2 = trunk 7
 - Order 3 = trunk 6
 - Order 4 = trunk 5
 - Order 5 = trunk 4
 - Order 6 = trunk 3
 - Order 7 = trunk 2
 - Order 8 = trunk 1

DS1000

- Keys 1-6 are line keys for trunks 1-6.
- All extensions have full access on all trunks.
- Trunks 4-6 require the Expansion Board.
- All versions have User Programmable Feature steps for line keys.
- Trunk Group Routing (dial 9) is assigned to trunk group 90 (which contains trunks 1-6). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
 - Order 1 = trunk 6
 - Order 2 = trunk 5

Order 3 = trunk 4
Order 4 = trunk 3
Order 5 = trunk 2
Order 6 = trunk 1

Programming Guide

Step-by-step guide for setting up Trunk Group Routing

Step 1: Should dial 9 capability be available system-wide?

If yes

- In *Program 0501 - Single Digit Access* (page 673), enter Y.

If no

- In *Program 0501 - Single Digit Access* (page 673), enter N.

Step 2: Should extension have dial 9 capability?

If yes

- In *Program 1802 - Station's Dial 9 Group* (page 759), assign a trunk group that has valid, installed trunks to which the extension has access. Also review the steps below.
- In *Program 1002 - Trunk Groups* (page 709), assign installed trunks to the extension's dial 9 trunk group assigned above.

If no

- In *Program 1802 - Station's Dial 9 Group* (page 759), assign a trunk group that does not have valid, installed trunks to which the extension has access.

Step 3: Check the trunk and trunk group access options for the extension.

- In *Program 1803 - Extension Line Access Assignments* (page 763), be sure the extension has either outgoing access (2) or full access (3) for some of the trunks in their dial 9 group.
- In *Program 1804 - Extension Trunk Group Access* (page 765), be sure to enable (Y) access to the extension's dial 9 group.

Trunk Group Routing

Programming List

Program 0501 - Single Digit Access (page 673)

Enter Y to enable user's to dial 9 for their specified trunk group. Enter N to require users to dial 9 followed by the Trunk Group number (0-8).

Program 1002 - Trunk Groups (page 709)

Program installed trunks into the trunk group you want to designate as an extension's dial 9 group in *Program 1802 - Station's Dial 9 Group* on page 759 below.

Program 1802 - Station's Dial 9 Group (page 759)

Assign the extension's dial 9 trunk group.

Program 1803 - Extension Line Access Assignments (page 763)

To make outgoing call, make sure the extension has either outgoing access (2) or full access (3) for the trunk.

Program 1804 - Extension Trunk Group Access (page 765)

Make sure the extension has access to the trunk group specified in *Program 1802 - Station's Dial 9 Group* on page 759.

Other Related Features

Central Office Calls, Placing (page 119)

Review this feature for other ways to place trunk calls.

Trunk (Line) Queuing / Trunk Callback (page 569)





An extension user camp-on or leave a Callback if all trunks in the dial 9 group are busy.

Trunk Groups (page 572)

With Trunk Group Routing disabled, extension users can optionally dial 90-98 to place calls on trunk groups 0-8.

Feature Operation

To place a call over a trunk group:

1. Lift handset.
2. Press ICM.
 Intercom dial tone.
 ICM on.
3. Dial 9.
 Trunk dial tone.
 Line key on.

If you don't hear dial tone as soon as you dial 9, your system does not have Trunk Group Routing enabled. See Central Office Calls, Placing on page 119 for more.

If you hear busy tone after dialing 9, all the trunks in your dial 9 group are busy. You can dial 2 to wait in line for a trunk to become free, or dial 2 to have an available trunk call you back. See Trunk (Line) Queuing / Trunk Callback on page 569 for more.

4. Dial outside number.

Trunk (Line) Queuing / Trunk Callback

Description



DS1000/2000

Available.



When all trunks are busy, *Trunk Queuing* lets a user wait in line for a trunk to become free. *Trunk Callback* will automatically call the user back when a trunk is available.

Trunk Queuing

Trunk Queuing permits an extension user to queue (wait in line) on hook for a busy trunk or trunk group to become free. The system recalls the queued extension as soon as the trunk is available. The user does not have to manually retry the trunk later.

Trunk Callback

After queuing for a trunk, the extension user just hangs up to convert the Trunk Queue into a Trunk Callback. When the trunk becomes free, the system automatically recalls the extension. As soon as the extension user answers the callback ring, the system connects the extension to the trunk.

An extension user can leave a Trunk Callback for many trunks. The system processes the callbacks as the trunks become free. In addition, many extensions can leave a Trunk Callback for the same trunk. The system processes the Trunk Callbacks on a first-in/first-out (FIFO) basis.

If an extension user leaves a Trunk Callback request and then fails to answer the callback ring within four rings, the system cancels the Callback.

Trunk Queuing Priority

Selected extensions can have Trunk Queuing Priority enabled in their Class of Service. If more than one extension queues for a busy trunk, the system services the extension with Trunk Queuing Priority first. If more than one extension with priority is queued for the same busy trunk, the system services the priority extensions on a first-in/first-out (FIFO) basis.

Conditions

A system reset or power failure cancels all Trunk Callbacks system-wide.

Default Setting

- Trunk (Line) Queuing / Trunk Callback enabled for attendants (COS 1), but disabled for all other extensions (COS 2-15).
- Trunk Queuing Priority disabled for all extensions (COS 1-15).

Trunk (Line) Queuing / Trunk Callback

Programming Guide

Step-by-step guide for setting up Trunk (Line) Queuing / Trunk Callback

Step 1: Should extension be able to queue for a busy trunk?

If yes



- In *Program 0101 - Camp-On to Busy Line* (page 618), enter Y to enable Trunk (Line) Queuing.

If no



- In *Program 0101 - Camp-On to Busy Line* (page 618), enter N to disable Trunk (Line) Queuing.

Step 2: Should extension have Trunk Queuing Priority?

If yes



- In *Program 0101 - Trunk (Line) Queuing Priority* (page 618), enter Y to enable Trunk Queuing Priority.

If no



- In *Program 0101 - Trunk (Line) Queuing Priority* (page 618), enter N to disable Trunk Queuing Priority.

Step 3: Assign Class of Service to extensions.

- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Programming List

Program 0101 - Trunk (Line) Queuing Priority (page 618)

In an extension's Class of Service, enter Y to enable Trunk (Line) Queuing Priority.

Program 0101 - Camp-On to Busy Line (page 618)

In an extension's Class of Service, enter Y to allow camping on to a busy trunk.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Callback (page 92)

An extension user can Camp-On to a busy co-worker then hang up to turn the Camp-On into a Callback.

Call Waiting / Camp-On (page 88)

Camp-On lets an extension user Camp-On to a busy extension.

Central Office Calls, Answering (page 113)

If a trunk is ringing an extension because of a prior Callback, and then receives a new trunk call, it will start ringing for the new call. The Callback request is then queued.

Central Office Calls, Placing (page 119)

An extension user can queue for a busy trunk, or queue and hang up to leave a callback for a busy trunk.

Last Number Redial (page 351)

If all trunks are busy and Last Number Redial cannot go through, the user can dial 2 a queue for a trunk to become free. If the user hangs up, the system converts the queue to a Trunk Callback.

Save Number Dialed (page 468)

If an extension user presses their Save key and hears busy, they can dial 2 to wait in line for the trunk to become available. The system will automatically redial the call. However, if the user hangs up to convert the queue to a Trunk Callback, the system will not redial the saved call once the trunk connects.

Feature Operation

To queue for a busy trunk:

1. Press line key for busy trunk.

OR

Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 101 for trunk 1).



Busy tone.



Line/loop key on (red).

After you hang up a trunk call on one of your line keys, and the trunk immediately becomes busy, wait a few seconds before queuing for that same trunk.

2. Dial 2; do not hang up.



Busy tone stops.



ICM and **SPK** on.

If you hang up, the system converts your queue to a Trunk Callback.

3. When the trunk becomes free, you are automatically connected.



- If you initially queued for the trunk, you hear trunk dial tone so you can place your call again.

- If you left a Trunk Callback, you hear Trunk Callback ring. If you answer within four rings, you will hear dial tone from the trunk. You can then place your call again.




ICM and **SPK** on.

4. Place your outside call.

Trunk Groups

Description

	DS1000	• See <i>Default Setting</i> below for specifics on the initial trunk setup. • Dial 9 is enabled by default. • See <i>Default Setting</i> below for specifics on the initial trunk setup. • Dial 9 is enabled by default is software version 03.10.08 or higher. It is undefined in prior 03.**.** versions.
	DS2000	



Dial codes to access trunk groups for outgoing calls.

Extension users can optionally dial trunk group access codes 90-98 to select trunk groups 0-8 for outgoing calls. This is helpful in applications that have different services arranged into trunk groups. For example, dialing 90 could access a group of DDD trunks for local calls, and dialing 91 could access a group of WATS trunks for long distance calls. (Note that systems with **Trunk Group Routing** (page 566) enabled cannot also dial trunk group access codes 90-98.)

When a user dials a trunk group access code (90-98), the system selects the lowest number in the group that is available. If that trunk is busy, it automatically selects the next highest trunk. If all trunks in the group are busy, the user can optionally queue for a trunk to become free. See **Trunk (Line) Queuing / Trunk Callback** (page 569) for more.

Systems using Trunk Groups or Trunk Group Access should use the hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.

Conditions

- Systems using Trunk Groups or Trunk Group Access should use the system's hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.
- A trunk can only be in one group.

Default Setting

DS2000

- Trunks 1-12 ring on line keys 1-12 for extensions 300-315. All other extensions are lamp only for trunks 1-12. Trunks 13-64 do not appear on line keys.
- All extensions have full access on all trunks.
- Trunk Group Routing (dial 9) is assigned to trunk group 90 (which contains trunks 1-8). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
 - Order 1 = trunk 8
 - Order 2 = trunk 7
 - Order 3 = trunk 6
 - Order 4 = trunk 5
 - Order 5 = trunk 4
 - Order 6 = trunk 3
 - Order 7 = trunk 2
 - Order 8 = trunk 1

DS1000

- Keys 1-6 are line keys for trunks 1-6.
- All extensions have full access on all trunks.
- Trunks 4-6 require the Expansion Board.
- All versions have User Programmable Feature steps for line keys.
- Trunk Group Routing (dial 9) is assigned to trunk group 90 (which contains trunks 1-6). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
 - Order 1 = trunk 6
 - Order 2 = trunk 5
 - Order 3 = trunk 4
 - Order 4 = trunk 3
 - Order 5 = trunk 2
 - Order 6 = trunk 1

Trunk Groups

Programming Guide

Step-by-step guide for setting up Trunk Groups

Step 1: Should extension be able to dial codes 90-98 to place calls on trunk group.

If yes

- In *Program 0501 - Single Digit Access* (page 673), enter N to disable single digit access (dial 9).
- In *Program 1002 - Trunk Groups* (page 709), check your system's trunk group assignments.

If no

- In *Program 0501 - Single Digit Access* (page 673), enter Y to enable single digit access (dial 9).

Step 2: Should extension be able to access all installed trunks in all trunk groups for placing calls (via codes 90-98)?

If yes

- In *Program 1803 - Extension Line Access Assignments* (page 763), assign either outgoing (2) or full (3) access to each trunk the extension **should** be able to use for outgoing calls.
- In *Program 1804 - Extension Trunk Group Access* (page 765), be sure the extension has access (Y) to each trunk group it **should** be able to use for outgoing calls.

If no

- In *Program 1803 - Extension Line Access Assignments* (page 763), assign either no (0) or incoming (1) access to each trunk the extension **should not** be able to use for outgoing calls.
- In *Program 1804 - Extension Trunk Group Access* (page 765), be sure the extension has no access (N) to each trunk group it **should not** be able to use for outgoing calls.

Programming List

Program 0501 - Single Digit Access (page 673)

Enter N to disable single digit access. With single digit access disabled, an extension user can dial 90-98 to access trunk groups 0-8.

Program 1002 - Trunk Groups (page 709)

Assign trunks to Trunk Groups (0-8).

Program 1803 - Extension Line Access Assignments (page 763)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access). This feature may not require access - check into this when the feature is working.

Program 1804 - Trunk Group Access (page 765)

For each extension, enter Y to allow or N to prevent outgoing trunk group access. The system always allows incoming trunk group access.

Other Related Features

Loop Keys (page 360)





Switched and Fixed Loop Keys use the system's Trunk Groups.

Trunk Group Routing (page 566)

With Trunk Group Routing enabled, extension users can press ICM and dial 9 to place outgoing calls.

Feature Operation

To place a call over a trunk group:

1. Lift handset.
2. Press ICM.
 Intercom dial tone.
 ICM on.
3. Dial trunk group code (90-98).
 Trunk dial tone.
 Line key on.

If you hear dial tone as soon as you dial 9, your system has Trunk Group Routing enabled. See Trunk Group Routing on page 566 for more.

4. Dial outside number.

Trunk Timers

Description



DS1000/2000

Available. See *System Timers* on page 516 for more.

Description



DS1000/2000

Programmable Idle Menu Soft Keys for Super Display telephone users requires software version 03.20.07 or higher.



Extension users can set up their telephones to meet their own unique requirements.

User Programmable Features allow an extension user to dial mnemonics to customize the way certain features work on their telephone. With User Programmable Features, there is no need to rely on a System Administrator or Communications Manager to set up each phone. These User-Programmable Features include:



- Call Forwarding Clear All
See *Call Forwarding* on page 63 for more.
- Direct Station Selection (DSS) Assignment
See *Direct Station Selection (DSS)* on page 177 for more.
- Headset Mode
See *Headset Compatibility* on page 291 for more.
- Hotline Key Assignment
See *Hotline* on page 302 for more. (Note that a keyset user with a DSS Console can use the **#HL** user-programmable procedure to change the Hotline assignments on their console.)
- Off Hook Signaling Setup (including Camp On, Off Hook Ringing for trunk calls, and Voice Over for Intercom calls)
See *Off-Hook Signaling* on page 394 for more.
- Paging (Incoming)
See *Paging* on page 409 for more.
- Prime Line Assignment
See *Prime Line Preference* on page 431 for more.
- Programmable Function Key Assignment
See *Programmable Function Keys* on page 444 for more.
- Programmable Function Key Ringing for Call Coverage Keys, Group Call Pickup Keys, and Line Keys
See *Call Coverage Keys* on page 59 for more.
See *Group Call Pickup* on page 273 for more.
See *Line Keys* on page 356 for more.
- Programmable Idle Menu Soft Keys (Super Display)
See *Programmable Idle Menu Soft Keys (Super Display)* on page 450 for more.
- Ringing Line Preference
See *Ringing Line Preference* on page 465 for more.
- Speed Dial Bin Setup (Personal and System)
See *Speed Dial* on page 481 for more.
- Time and Date
See *Time and Date* on page 546 for more.
- Voice Announce (For incoming Intercom calls)
See *Intercom* on page 339 for more.

User Programmable Features

User Programmable Features				
To program a feature, press # and the feature's code. For example, to enable incoming Paging, press # and dial VPY , then SPK to hang up. By default, Call Forwarding Clear All, System Speed Dial, and Time and Date are only available to the attendant.				
Feature	Mnemonic	Numeric	Operation	Access Level
Call Forwarding Clear All	#CC	#22	#CC + Y to clear (cancel) forwarding or N to exit without clearing + SPK to hang up.	4 and 5
Headset Mode	#HS	#47	#HS + Y to enable or N to disable + SPK to exit.	3-5
Hotline	#HL	#45	#HL + Press flashing Hotline key + Enter extension for new Hotline partner + HOLD + Program another Hotline key or SPK to exit.	3-5
Off Hook Signaling	#OHS	#647	#OHS + Select mode (C =Outside line, I =ICM, D =Hotline) + Select option (see below) + SPK to exit. <i>Outside line options:</i> C =Camp On tone, O =Off Hook Ringing, 0 = None <i>Intercom options:</i> C =Camp On, V =Voice Over, 0 =None <i>Hotline Options:</i> C =Camp On, V =Voice Over, 0 =None,	3-5
Paging (Incoming)	#VP	#87	#VP + Y to enable or N to disable + SPK to exit.	3-5
Prime Line Assignment	#PLA	#752	#PLA + Press one of your flashing programmable keys or ICM + SPK to exit.	3-5
Programmable Function Key Assignments	#KP	#57	#KP + Press key you want to program + HOLD + ICM + Press VOL ▲ or VOL ▼ to select key option + HOLD + (Enter any additional data if required ¹ + HOLD) + Press VOL ▲ or VOL ▼ to select another key to program, or CONF + SPK to exit.	3-5
			¹ To set up a Night (System Mode System) key, press CLEAR instead of entering additional data.	
Programmable Function Key Ringing	#RAC	#722	<i>Call Coverage Keys:</i> #RAC + Call Coverage Key repeatedly to select ringing mode + SPK to exit. Call Coverage Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.	2-5
	#RAL	#725	<i>Outside Line Keys:</i> #RAL + Line Key repeatedly to select ringing mode + SPK to exit. Line keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green, Night ring=Slow flash green.	
	#RAP	#727	<i>Group Call Pickup Keys:</i> #RAP + Group Call Pickup Key repeatedly to select ringing mode + SPK to exit. Group Call Pickup Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.	
Programmable Idle Menu Soft Keys (Super Display)	#SM	#76	Press the soft key your want to program (or press Vol ▲ or Vol ▼ to scroll through the keys) + HOLD + ICM + Vol ▲ or Vol ▼ to select key option + HOLD + CONF + SPK to exit.	1-5

User Programmable Features

User Programmable Features				
To program a feature, press # and the feature's code. For example, to enable incoming Paging, press # and dial V PY , then SPK to hang up. By default, Call Forwarding Clear All, System Speed Dial, and Time and Date are only available to the attendant.				
Feature	Mnemonic	Numeric	Operation	Access Level
Ringing Line Preference	#RLP	#757	#RLP + Y to enable or N to disable + SPK to exit.	2-5
Speed Dial, Personal	#SP	#77	#SP + Press bin key (for bins 701-710) or DIAL then bin key (for bins 711-720) + HOLD + Dial outside line (e.g., 1), Line group (e.g., 90-98), or ICM for Intercom feature + HOLD + Number to store + HOLD twice+ Name + HOLD + Press another bin key or SPK to exit.	1-5
Speed Dial, System	#SP	#77	#SP + Dial System Speed Dial bin number (e.g., 200) + HOLD + Dial outside line (e.g., 1), Line group (e.g., 90-98), or ICM for Intercom feature + HOLD + Number to store + HOLD twice + Name + HOLD + Dial another System Speed Dial bin or SPK to exit.	4 and 5
System Program Access	###		### + Enter programming password	3-5
Time and Date	#TD	#83	#TD + Enter time in 24-hour clock using hours (2 digits), minutes (2 digits) and seconds (2 digits) + HOLD + Enter date using month (2 digits), day (2 digits) and year (4 digits) + HOLD + SPK to exit.	4 and 5
Intercom Voice Announce (for incoming Intercom calls)	#VA	#82	#VA + V for voice announce or R for ring + SPK to exit.	3-5

Conditions

None

Default Setting

- Extension 300 has its access level fixed at 5. (This means that by default only extension 300 can dial #TD to change the system time and date.)
- All other extensions have access level 3.

Programming List

Program 1801 - Access Level (page 755)

Use this option to set an extension's access level (1-5). Access level 5 has the most capability (see the tables above). Access level 1 has the least capability. By default, extension 300 has its access level fixed at 5. All other extensions have Access Level 3.

Other Related Features

See features listed under *Description* heading above.

Feature Operation

See tables under *Description* heading above.

Description



DS1000/2000

- The Voice Mail master number is normally 700.
- Voice Mail station numbers are 201-208 (extension numbers 500-507).
- One-touch Message Center key operation requires software version 03.10.12 or higher.
- A Conversation Record Key to a co-worker's mailbox requires system software version 03.20.07 or higher.
- A mailbox greeting will restart for a call transferred to voice mail in system software version 03.20.07 and higher.
- Handling Personal Answering Machine Emulation calls operation changed to match IntraMail Call Screening operation in system software version 03.20.07 and higher.
- In software versions 03.20.07 and higher, the Ring/Message lamp flashes fast red when a keyset user has new messages in their mailbox. The **MW** key does not flash.



Voice Mail ends the frustration of and cost of missed calls, inaccurate written messages and telephone tag, freeing up the company's receptionists and secretaries for more production work.

The system is fully compatible with IntraMail, UltraMail, and NVM-Series Voice Mail with Automated Attendant Systems. These systems provide telephone users with comprehensive Voice Mail and Automated Attendant features. Automated Attendant automatically answers the system's incoming calls. After listening to a customized message, an outside caller can dial a system extension or use Voice Mail. Integrated Voice Mail enhances the telephone system with the following features:

Call Forwarding to Voice Mail

An extension user can forward their calls to Voice Mail. Once forwarded, calls to the extension connect to that extension's mailbox. The caller can leave a message in the mailbox instead of calling back later. Forwarding can occur for all calls immediately, for unanswered calls or when the extension is busy, or just for unanswered calls.

Leaving a Message

Voice Mail lets a keyset extension user easily leave a message at an extension that is unanswered, busy in Do Not Disturb. The caller just presses their Voice Mail key to leave a message in the called extension's mailbox. There is no need to call back later.

Transferring to Voice Mail

By using Transfer to Voice Mail, an extension user can Transfer a call to the user's own or a coworker's mailbox. After the Transfer goes through, the caller can leave a message in the mailbox. The caller will hear the entire mailbox greeting after the Transfer goes through.

Conversation Record

While on a call, an extension user can have Voice Mail record the conversation. The keyset user just presses their Voice Mail Record Key. Once recorded, the Voice Mail stores the conversation as a new message in the user's mailbox. After calling their mailbox, a user can save, edit or delete the recorded conversation. The ability to use Conversation Record is controlled by an extension's Class of Service.

Caution

The use of monitoring, recording, or listening devices to eavesdrop, monitor, retrieve, or record telephone conversations or other sound activities, whether or not contemporaneous with transmission, may be illegal in certain circumstances under federal or state laws. Legal advice should be sought prior to implementing any practice that monitors or records any telephone conversation, such as using a beep tone or other notification methods or requiring the consent of all parties to the telephone conversation, prior to monitoring or recording the telephone conversation. Some of these laws incorporate strict penalties.

Conversation Record Key for a Co-worker's Mailbox

An extension user can have a Conversation Record key for a co-worker's mailbox. While on a call, the user can press the key to record their conversation directly into the co-worker's mailbox. The user can set up the Conversation Record key to record into any valid Subscriber Mailbox (including IntraMail Group Mailboxes and Master Mailboxes programmed as Subscriber Mailboxes). This could help a dispatcher, for example, that wants to record a conversation with a client right into the responsible technician's mailbox.

An extension can have multiple Conversation Record keys, each associated with a different mailbox. In addition, setting up a Conversation Record key for a co-worker's mailbox is also available on DSS Consoles.

Personal Answering Machine Emulation

A keyset user can have their idle extension emulate a personal answering machine. This lets Voice Mail screen their calls, just like their answering machine at home. If activated, the extension's incoming calls route to the user's subscriber mailbox. Once the mailbox answers, the user hears two alert tones followed by the caller's incoming message. The keyset user can then:

- Let the call go through to their mailbox.
- Intercept the call before it goes to their mailbox.

Personal Answering Machine Emulation will intercept the following types of calls:

- Intercom calls
- Direct Inward Lines to the extension
- Automated Attendant Unscreened Transfers
- Automated Attendant Screened Transfers

Personal Answering Machine Emulation will not intercept a call manually transferred to an extension.

Voice Mail Overflow

If Voice Mail automatically answers trunks, Voice Mail Overflow can reroute those trunks to an extension, Ring Group or UCD Hunting group when all Voice Mail ports are busy. During periods of high traffic, this prevents the outside calls from ringing Voice Mail for an inordinate amount of time. Without overflow, the outside calls ring Voice Mail until a port becomes available or the outside caller hangs up.

In addition, Voice Mail can be the *overflow destination* for the following types of calls (refer to the individual features for the specifics):

- **Direct Inward Line** (page 170)
A trunk that directly rings an extension can overflow to Voice Mail.
- **Extension Hunting** (page 239)
A trunk that rings an Extension Hunting group can overflow to Voice Mail.
- **Group Ring** (page 279)
A trunk that rings a group of extensions can overflow to Voice Mail.
- **Key Ring** (page 344)
A trunk ringing extension's line keys can overflow to Voice Mail.

Message Center Mailbox

A Message Center Mailbox is a mailbox shared by more than one extension. Any keyset that has a Message Center Key for the shared mailbox can:

- Listen to the messages stored in the mailbox.
- Transfer calls to the shared mailbox.
- Use many other Voice Mail features previously available only at an extension's individual mailbox.

A Message Center Mailbox helps co-workers that work together closely - such as members of the same Pickup Group. For example, the group supervisor can send important messages to the shared Message Center Mailbox, to which any group member can respond when time allows. Each group member's Message Center Key flashes (green) when messages are waiting.

Interactive Soft Key Shows New Messages

The Display and Super Display Telephone interactive soft keys show the number of new messages in the user's mailbox. For example, if a Display Telephone user has 2 new messages in their mailbox, their Voice Mail soft key shows: **VM02**. If a Super Display Telephone user has 2 new messages in their mailbox, their Voice Mail soft key shows **V-MAIL 02**. The new message count resets to 00 as soon as the user calls their mailbox (regardless of whether the new messages were listened to). The message count returns when the system updates the Ring/Message lamp on the phone.

Setting Up NVM-Series Voice Mail

You should complete your DS1000/2000 Voice Mail programming before using the following setup instructions.

DS1000 Ring Assignments and Voice Mail Ports

The system automatically disables the **1805 - Ring Assignments** programming for all single line ports assigned as Voice Mail ports. To have Voice Mail answer an outside call, the trunk should be a Direct Inward Line (i.e., directly terminated) to the Voice Mail master number.

Improved Handling of Extensions in Do Not Disturb

To streamline handling of Automated Attendant UTRFs, a UTRF to an extension in DND or to an uninstalled extension will immediately recall the Voice Mail.

When an extension has Type 2 (Ring No Answer/Busy Trunk) or Type 3 (Ring No Answer/Busy All) hunting to Voice Mail, the user can just press **DND** to send all trunk calls to their mailbox. This includes calls transferred from the Automated Attendant.

To set up Type 2 or Type 3 Extension Hunting to Voice Mail:

- For **Program 1807 - Hunt Type** (page 772), enter 2 (Ring No Answer/Busy Trunk) or 3 (Ring No Answer/Busy All).
- For **Program 1807 - Hunt Destination** (page 772), enter the Voice Mail master number (e.g., 700).

Refer to the *IntraMail System Guide* (P/N 80044INS**) for more on setting up Extension Hunting to Voice Mail.

Conditions

- If an extension has a flashing Ring/Message lamp and the system resets or power fails, the lamp continues to flash after the system restarts.
- When using ASTU PCBs, the number of external Voice Mail ports you can install is limited by available system DTMF receivers.
- When the system rings an idle Voice Mail port, it will continue to ring the port until answered. The call will not cycle to a another member of the UCD Group (as it will for voice calls).
- The system will never send a loop supervision disconnect signal (i.e., drop pulse) to Voice Mail ports.

Default Setting

Voice Mail not installed.

Programming Your Voice Mail

Simplified External Voice Mail Programming

The system provides a predefined set of Voice Mail station numbers (201-208), which have a predefined set of corresponding Voice Mail extension numbers (500-507). In addition, the Voice Mail extension numbers are already designated as Voice Mail ports and assigned to a predefined UCD Hunting Group (with 700 as the master number). Because of these assignments, programming Voice Mail is a simple, 2-step process:

- In **Program 8001 - Voice Mail Setup** (page 776), enter E to enable external Voice Mail.
- In **Program 9902 - Set Up Stations (DS1000)** (page 793) and **Program 9902 - Set Up Stations (DS2000)** (page 796), assign the Voice Mail ports to the predefined Voice Mail station numbers (201-208).

Following are some typical examples of external Voice Mail programming. Your setup may differ.

Analog VANGARD Sample Installation in DS1000

- Connect the analog VANGARD Voice Mail ports to analog ports 17-20.
- In **Program 8001 - Voice Mail Setup** (page 776), enter E.
- In **Program 9902 - Set Up Stations (DS1000)** (page 793), assign ports 17-20 station numbers 201-204, respectively.

Digital VANGARD Sample Installation in DS1000

- Connect the digital VANGARD Voice Mail ports to digital ports 5 and 6.
- In **Program 8001 - Voice Mail Setup** (page 776), enter E.
- In **Program 9902 - Set Up Stations (DS1000)** (page 793):
 - For port 5, assign the primary station number to 201 and the secondary station number to 202.
 - For port 6, assign the primary station number to 203 and the secondary station number to 204.

Analog VANGARD Sample Installation in DS2000

8x16x8 with 4-Port Analog VANGARD Mail								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	8ASTU	8ATRU					
Numbers	Ext. 300-315	Ext. 316-323	Trunks 101-108					

- Connect the analog VANGARD Voice Mail ports to ports 1-4 on the 8ASTU PCB in slot 2 (CN2).
- In **Program 8001 - Voice Mail Setup** (page 776), enter E.
- In **Program 9902 - Set Up Stations (DS2000)** (page 796), for slot 2, assign ports 1-4 station numbers 201-204, respectively.

Digital VANGARD Sample Installation in DS2000

8x32 with 4-Port Digital VANGARD Mail								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	16DSTU	8ATRU					
Numbers	Ext. 300-315	Ext. 316-331	Trunks 101-108					

- Connect the digital VANGARD Voice Mail ports to ports 1 and 2 on the 16DSTU PCB in slot 2 (CN2).
- In **Program 8001 - Voice Mail Setup** (page 776), enter E.
- In **Program 9902 - Set Up Stations (DS2000)** (page 796), for slot 2:
 - For port 1, assign the primary station number to 201 and the secondary station number to 202.
 - For port 2, assign the primary station number to 203 and the secondary station number to 204.

Note: IntraMail and UltraMail built-in Voice Mail systems automatically set up without any required programming.

Setting Up VANGARD Mail for NVM-1000/2000

To set up VANGARD Mail and NVM-2000 for DS1000/2000:

1. Following the instructions in your Voice Mail manual, connect the Voice Mail to the telephone system.
2. From the Voice Mail Main Menu, enter **IN + Enter**.
3. Enter the Voice Mail password (**CTL**) + **Enter**.
4. When you see the Install System Menu, enter **7 + Enter** (to select DS2000) and follow the prompts.

Setting Up NVM-2e and NVM-1000/2000

To set up NVM-2e for DS1000/2000:

1. Following the instructions in your NVM-2e manual, connect the Voice Mail system.
The steps that follow assume your NVM-2e still has its default programming.
2. From any extension:
 - Press **ICM**.
 - Dial the voice Mail master number (e.g., **700**).
 - (NVM-2e version 2.0 or higher) Dial **301**, wait for the main menu.
 - (NVM-2e version prior to 2.0) Dial **10**, wait for the main menu.
3. At the main menu, dial **DM** (36) for the Database Management Menu.
4. Dial **SI** (74) for System Initialization.
5. Dial **3** to initialize the Voice Mail database.
6. Dial **4** to install the database for DS1000/2000.
7. Press **#**, then follow the voice prompts to answer.

Setting Up Older NVM-Series Voice Systems without DS1000/2000 Integration

If your NVM-Series Voice Mail does not have DS2000 as a menu selection in **IN - INSTALL SYSTEM**, do the following:

- **Set up the Voice Mail database.**
 1. Select **IN - Install System**
 2. Reinstall the Voice Mail for DS01/VS (24 x 72) and customize the trunk numbers to begin with 101.

- **Change the Voice Mail Call Pickup String.**
 1. Select **CU - Customize Database**.
 2. Select **SO - System Options**.
 3. Change the **Call Pickup String** option to **W****.

- **Change the Voice Mail Park and Page String.**
 1. Select **CU - Customize Database**.
 2. Select **MO - Mailbox Options**
 3. Enter the extension's mailbox number (e.g., 300 for extension 300).
 4. For the mailbox selected (e.g., 300), change the **Park/Paging string** option to: **FW**nnn/*10** (where nnn is the extension's number).

*For extension 300, for example, the string would be FW**300/*10.*

- **Change the Voice Mail Off Hook Call Announce and Ringdown Strings.**

The Ringdown String is required for Voice Mail Call Announce options 1, 2 and 3. The Off Hook Call Announce String is required for Voice Mail Call Announce Options 2 and 3.

 1. Select **CU - Customize Database**.
 2. Select **SO - System Options**.
 3. Change the **Off Hook Call Announce String** option to: **9P@A|2**.

This option may not be available on all Voice Mail systems.
 4. Change the **Ringdown String** to **B** (DTMF digit B).

This option may not be available on all Voice Mail systems.

Refer to your NVM-Series Documentation for additional details.

Programming Guide

Basic Voice Mail Programming (External Voice Mail Only)

Step-by-step guide for setting up basic Voice Mail programming

Step 1: Enable Voice Mail.

- In *Program 8001 - Voice Mail Setup* (page 776), enter E (3) to enable external Voice Mail (such as NVM-2e and VANGARD Mail).
- IntraMail and UltraMail set up this option automatically.

Step 2: Set up the Voice Mail stations.

- In *Program 9902 - Set Up Stations (DS1000)* on page 793 and *Program 9902 - Set Up Stations (DS2000)* on page 796, assign the Voice Mail ports to the predefined Voice Mail station numbers (201-208).

Optional Voice Mail Programming

Step-by-step guide for setting up optional Voice Mail programming (Page 1 of 3)

Step 1: Do you want the Voice Mail Automated Attendant to answer trunk calls?

If yes

- In *Program 1003 - Direct Termination (Day)* (page 712), enter the Voice Mail master extension number (e.g., 700). The Automated Attendant will now also answer calls at night.
- In *Program 1701 - Night Key* (page 740), set up a System Mode UCD Master key to be able to control the night mode of the DIL terminated to Voice Mail during the day.
OR
In *Program 1704 - Night Key* (page 749), set up a System Mode UCD Master key to be able to control the night mode of the DIL terminated to Voice Mail during the day.

If no

- In *Program 1003 - Direct Termination (Day)* (page 712), make sure the trunk is not terminated to the Voice Mail master extension number.

Step 2: Do you want the Voice Mail Automated Attendant to answer trunk calls only at night?

If yes

- In *Program 1003 - Direct Termination (Day)* (page 712), make sure the trunk is not terminated to the Voice Mail master extension.
- In *Program 1003 - Direct Termination (Night)* (page 713), enter the Voice Mail master extension number (e.g., 700). The Automated Attendant will now also answer calls when the system is in the night mode.

If no

- In *Program 1003 - Direct Termination (Day)* (page 712), make sure the trunk is not terminated to the Voice Mail master extension number.
- *Program 1003 - Direct Termination (Night)* (page 713), make sure the trunk is not terminated to the Voice Mail master extension.

Step 3: When all Voice Mail ports are busy, do you want Automated Attendant calls to ring a designated overflow destination?

If yes

- In *Program 0510 - Overflow Destination* (page 679), enter the Voice Mail overflow destination. The destination can be an extension, Ring Group master number or a UCD Group master number.

If no

- In *Program 0510 - Overflow Destination* (page 679), press CLEAR to remove the overflow destination.

Step-by-step guide for setting up optional Voice Mail programming (Page 2 of 3)

Step 4: When all Voice Mail ports are busy, do calls wait for the proper interval before ringing the overflow destination?

If yes

If no

- In *Program 0401 - ACD/UCD Overflow* (page 644), leave the ACD/UCD Overflow interval at its currently assigned value.
- In *Program 0401 - ACD/UCD Overflow* (page 644), change the ACD/UCD Overflow interval to meet the site requirements.

Step 5: Do calls ring the Voice Mail overflow destination for the proper interval before diverting to Key Rlng?

If yes

If no

- In *Program 0401 - DIL No Answer* (page 643), leave the DIL No Answer interval at its currently assigned value.
- In *Program 0401 - DIL No Answer* (page 643), change the DIL No Answer interval to meet the site requirements.

Step 6: Should extension have Conversation Record capability?

If yes

- If you want the Conversation Record key on the keyset:
In *Program 1701 - Voice Mail Record Key* (page 739), assign a keyset programmable key as a Voice Mail Record key (code 17 + mailbox number).
- If you want the Conversation Record key on the DSS Console:
In *Program 1704 - Voice Mail Record Key* (page 749), assign a DSS Console key as a Voice Mail Record key (code 17 + mailbox number).
- In *Program 0101 - Conversation Record* (page 620), enter Y to enable Conversation Record in an extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step-by-step guide for setting up optional Voice Mail programming (Page 3 of 3)

If no

- In *Program 1701 - Voice Mail Record Key* (page 739), make sure a keyset key is not assigned as a Voice Mail Record key (code 17).
- In *Program 1704 - Voice Mail Record Key* (page 749), make sure a DSS Console key is not assigned as a Voice Mail Record key (code 17).
- In *Program 0101 - Conversation Record* (page 620), enter Y to enable Conversation Record in an extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Step 7: Should extension have access to a Message Center?

If yes

- If you want the Message Center key on the keyset:
In *Program 1701 - Message Center Key* (page 740), assign a keyset programmable key as a Message Center key (code 24). You must also enter the Message Center mailbox number. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 310).
- If you want the Message Center key on the DSS Console:
In *Program 1704 - Message Center Key* (page 750), assign a DSS Console key as a Message Center key (code 24). You must also enter the Message Center mailbox number. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 310).

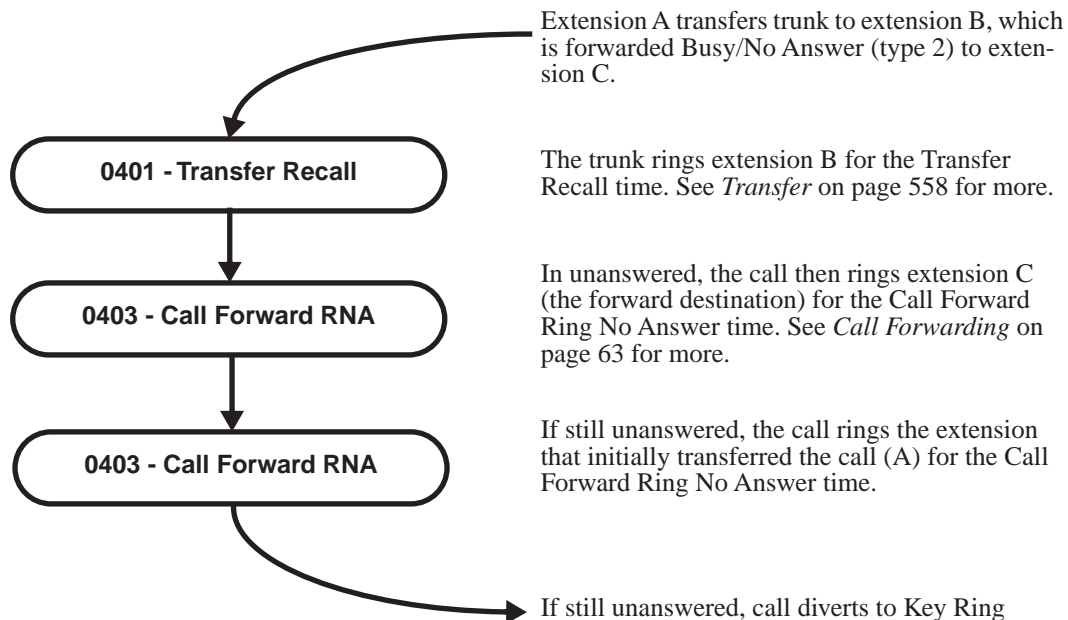
If no

- In *Program 1701 - Message Center Key* (page 740), make sure a keyset key is not assigned as a Message Center key (code 24).
- In *Program 1704 - Message Center Key* (page 750), make sure a DSS Console key is not assigned as a Message Center key (code 22).

Call Forwarding Timers and Voice Mail

The following diagrams show how the system implements various timers when handling calls transferred from Voice Mail.

Transferred Trunk Call to Forwarded Extension



Programming List

Basic Voice Mail Programming

Program 8001 - Voice Mail Setup (page 776),
Enter E to enable external Voice Mail.

Program 9902 - Set Up Stations (DS1000) (page 793) and **Program 9902 - Set Up Stations (DS2000)** (page 796)

Assign the Voice Mail ports to the predefined Voice Mail station numbers (201-208).

Optional Voice Mail Programming

Program 0101 - Conversation Record (page 620)

Enter Y to enable Conversation Record in an extension's Class of Service. If enabled, the user can press either their Conversation Record key or the RECORD soft key to initiate recording. If disabled (N), the user cannot record conversations into their mailbox.

Program 0401 - DIL No Answer (page 643)

A call rings the Voice Mail overflow destination for this interval before diverting to Key Ring.

Program 0401 - ACD/UCD Overflow (page 644)

When all Voice Mail ports are busy, a call rings the overflow destination after this interval.

Program 0510 - Overflow Destination (page 679)

Assign the Voice Mail overflow destination. The destination can be an extension, Ring Group Master Number, or UCD Group Master Number

Program 1003 - Direct Termination (Day) (page 712)

To have the Voice Mail Automated Attendant answer the trunk in the day or at night, assign the Voice Mail master number (e.g., 700) as the day termination.

Program 1003 - Direct Termination (Night) (page 713)

To have the Voice Mail Automated Attendant answer the trunk at night (if it has a different termination in the day), assign the Voice Mail Master number (e.g., 700) as the night termination. If the day termination above is the Voice Mail master, the system ignores the assignment in this program.

Program 1701 - Voice Mail Record Key (page 739)

Assign a programmable key on an extension as a Voice Mail Record key (code 17 + mailbox number).

Program 1701 - Night Key (page 740)

Set up a System Mode UCD Master key to be able to control the night mode of a DIL terminated to Voice Mail during the day.

Program 1701 - Message Center Key (page 740)

Assign a programmable key as a Voice Mail Message Center key (code 24). The option is the extension number assigned as the Message Center. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 310).

Program 1704 - Voice Mail Record Key (page 749)

Assign a programmable key on an extension as a Voice Mail Record key (code 17 + mailbox number).

Program 1704 - Night Key (page 749)

Set up a System Mode UCD Master key to be able to control the night mode of a DIL terminated to Voice Mail during the day.

Program 1704 - Message Center Key (page 750)

Assign a programmable key as a Voice Mail Message Center key (code 24). The option is the extension number assigned as the Message Center. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 310).

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service to extensions.

Other Related Features

Account Codes (page 24)

Voice Mail callout features (such as Message Notification) may interact with Account Codes if the callout number contains # characters.

Attendant Position (page 37)

- TRF transfers to the attendant from the Voice Mail Automated Attendant flash the Operator Call key and the Ring Indicator lamp. The call does not flash a line/loop key. (Note that Ringing Line Preference will not pick up a call ringing the attendant's Call Queue key.)
- UTRF transfers to the attendant from the Voice Mail Automated Attendant flash the trunk's line/loop key and the Ring Indicator lamp.

Call Forwarding (page 63)

You can forward calls Voice Mail.

Caller ID (page 95)

Caller ID fully integrates with NVM-Series Voice Mail systems.

Direct Inward Line (page 170)

- The Voice Mail Automated Attendant will answer a DIL terminated to the Voice Mail Master Number.
- If a DIL is terminated to the Voice Mail master number, a System Mode key (code 18 + the Voice Mail number) controls the night mode status of the DIL.

Direct Station Selection (DSS) Console (page 180)

A DSS Console can have Voice Mail Record and Message Center keys.

Extension Hunting (page 239)

- To set up extension overflow to Voice Mail:
 - In *Program 1807 - Hunt Type* on page 772, enter Hunt Type 3.
 - In *Program 1807 - Hunt Destination* on page 772, designate the Voice Mail master number as the Hunt Destination.
Unanswered calls, in addition to calls to the extension while it is busy or in DND, route the extension's mailbox.
- For Terminal and Circular Hunting, unsupervised transfers (UTRF) from the Voice Mail Automated Attendant route like trunk calls. Supervised transfers (TRF) from the Voice Mail Automated Attendant route like Intercom calls. In either case, unanswered calls eventually route the initially called extension's mailbox.
- When an extension user with Ring No Answer/Busy Terminal Hunting to Voice Mail parks a call at a co-worker's extension, the call recalls to them if not picked up. If still unanswered, the call diverts to Key Ring.

Message Waiting (page 368)

A system can have either Voice Mail or Message Waiting activated — not both.

Ringdown Extension (page 463)

If the Ringdown destination is the Voice Mail master number, the Ringdown Extension user hears the Voice Mail main greeting (“*Please enter your mailbox number*”) after the call connects.

Feature Operation

Calling Your Mailbox

To call your mailbox:

*Your Ring/Message lamp flashes fast when you have new messages in your mailbox.
Your display shows the number of new messages in your mailbox.*

1. Press **MW**.
*There is no need to press **SPK**, **ICM**, or lift the handset first.
While connected to your mailbox, your **MW** key will be on (red).*
2. If requested by Voice Mail, enter your security code.
Your Ring/Message lamp goes out.

To hang up while using your mailbox:

1. Press **MW**.
Your MW key will go out.

Leaving a Message





To leave a message in a mailbox of an unanswered extension:

The extension you call can be busy, in DND or unanswered.

1. Press **MW**.
The Voice Mail system will prompt you to leave a message.

Forwarding Calls to your Mailbox



To activate or cancel Call Forwarding:

1. Press **ICM**.
 | Dial tone.
 | **ICM** and **SPK** on.
2. Dial ***3**.
 | Dial tone stops.
 | **ICM** and **SPK** on.
3. Dial Call Forwarding type:
0 = Cancel forwarding
2 = Busy/No Answer
4 = Immediate
6 = No answer
4. Press **MW**.
5. Press **SPK** to hang up.
Your DND key is on while your calls are forwarded.

Transferring Calls to a Mailbox



To Transfer your active call to a mailbox:

Method A

1. Press **ICM**.
 | Dial tone.
 | **ICM** and **SPK** on.
2. Dial the number of the mailbox to receive the Transfer (e.g., 301 for extension 301).
This number can be your mailbox number (if you're away from your desk) or a co-worker's mailbox number.
3. Press **MW**.
4. Press **SPK** to hang up.
*Voice Mail will prompt your caller to leave a message in the mailbox you selected.
The caller will hear the entire mailbox greeting after the Transfer goes through.*

Method B

This method transfers a call to a co-worker's mailbox without first ringing their phone.

1. Press **ICM**.
 | Dial tone.
 | **ICM** and **SPK** on.
2. Press **MW**.
3. Dial the number of the mailbox to receive the Transfer (e.g., 301 for extension 301).
This number can be your mailbox number (if you're away from your desk), a co-worker's mailbox number, or an "out of range" mailbox.
4. Press **SPK** to hang up.
*Voice Mail will prompt your caller to leave a message in the mailbox you selected.
The caller will hear the entire mailbox greeting after the Transfer goes through.*

Method C

1. Press **ICM**.

?	Dial tone.
	ICM and SPK on.
2. Press DSS key for co-worker's extension + **MW**.
3. Press **SPK** to hang up.

Voice Mail will prompt your caller to leave a message in the mailbox you selected. The caller will hear the entire mailbox greeting after the Transfer goes through.


Method D

1. Press keyset or DSS Console Hotline or Call Coverage key.

?	Dial tone.
	ICM and SPK on.
2. Press **MW**.
3. Press **SPK** to hang up.

Voice Mail will prompt your caller to leave a message in the mailbox you selected. The caller will hear the entire mailbox greeting after the Transfer goes through.

Recording your call

 User Programmable Feature			
Feature	Mnemonic	Operation	Access Level
Conversation Record	#KP	#KP + Press key you want to program + HOLD + Dial 17 + Enter mailbox number or 0 for your own mailbox + HOLD + CONF + SPK to exit.	3-5

To record your active call in yours or a co-worker's mailbox:

Only one party on a call can use Conversation Record at any one time. This includes Intercom calls and Conference calls.

1. Press RECORD soft key (for your mailbox only) or your Voice Mail Record key.

The key lights green while the system calls your mailbox. Once recording begins, the key flashes fast you and your caller hear the voice prompt "Recording."

Your Voice Mail Record key can be assigned to yours or co-worker's mailbox.

You can also have a Record key on your DSS Console. It lights red while the system calls your mailbox and flashes fast once recording begins.

To turn conversation record off:

1. Press your lit MW key.

Recording stops and the call is sent to your voice mailbox.

Personal Answering Machine Emulation

22-Button and 34-Button Display Telephone Operation

To activate Personal Answering Machine Emulation:

1. Press **ICM** and dial ***3**.
OR
Press **PGM + CFWD**.

```
Enter Call FWD type
IMM RNA BNA MORE
```

2. Dial **7** or press **MORE + AME**. You see:

```
Enter FWD Option
ALL TRNK EXIT CNCL
```

3. Dial **2** or press **ALL** to forward all calls.
OR
Dial **8** or press **TRNK** to forward just trunk calls.
*It is no longer necessary to press **SPK** to hang up.*

To cancel Personal Answering Machine Emulation:

1. Press **ICM** and dial ***3**.
OR
Press **CLEAR + PGM + CFWD**. You see:

```
Select Call FWD type
NONE EXIT MORE
```

2. Dial **0**, press **CLEAR**, or press **NONE** to cancel forwarding.
3. Personal Answering Machine Emulation is cancelled.
*It is no longer necessary to press **SPK** to hang up.*

Super Display Telephone Operation

To activate Personal Answering Machine Emulation:

1. Press **ICM** and dial ***3**.
OR
Press **PROGRAM + CALL FWRD**.

```
Enter Call FwD type
IMMEDIATE          NONE
RING/NO ANS
BUSY/NO ANS
OFF-PREMISE
ANS MACHINE
MESSAGE           EXIT
```

2. Dial **7** or press **ANS MACHINE**:

```
Enter FwD Option

ALL          TRUNK ONLY

CANCEL      EXIT
```

Dial **2** or press **ALL** to forward all calls.

OR

Dial **8** or press **TRUNK ONLY** to forward just trunk calls.

*It is no longer necessary to press **SPK** to hang up.*

To cancel Personal Answering Machine Emulation:

1. Press **ICM** and dial ***3**.
OR
Press **PROGRAM + CALL FWRD**. You see:

```
Enter Call FwD type
IMMEDIATE          NONE
RING/NO ANS
BUSY/NO ANS
OFF-PREMISE
ANS MACHINE
MESSAGE           EXIT
```

2. Dial **0**.
OR
Press **NONE**.
OR
Press **CLEAR**.

*It is no longer necessary to press **SPK** to hang up.*

3. Personal Answering Machine Emulation is cancelled.

Handling Personal Answering Machine Emulation Calls (03.20.07 and Higher when Call Screening is Enabled)

When Personal Answering Machine Emulation broadcasts your caller's voice, you can:

*While you are listening to the broadcast, **SPK** flashes and **MW** lights steadily on.*

- Do nothing to have the caller's voice automatically recorded in your mailbox.
- Press **SPK** or lift the handset to intercept the call.
*If your extension is in the headset mode, you can only press **SPK**.*
- Press **MW** to switch to the Call Screening mode.

In the Call Screening mode, to intercept the screened call (and stop recording the message):

- Press **ANSWER (ANSW)**.

In the Call Screening mode, to continue screening your caller's message as your mailbox records it:

- Press **SCREEN (SCRN)**.
 - To intercept the call (and stop recording the message):
Press **ANSWER (ANSW)**, or
Press **SPK**, or
Lift the handset, or
Press **MW**.
 - To continue listening to your caller's message as it is being recorded:
Do nothing.
 - To exit Call Screening and allow the message to continue recording in private:
Press **EXIT**.
 - To use another feature or process another call:
Press any other feature key.

In the Call Screening mode, to exit the screening mode and allow the message to continue being recorded in private:

- Press **EXIT**.

In the Call Screening mode, to use another feature or process another call:

- Lift the handset, or
- Press **SPK**, or
- Press any other feature key.
Call Screening is only functional while the telephone is on-hook.

Handling Personal Answering Machine Emulation Calls (All Versions when Call Screening is Disabled)

When Personal Answering Machine Emulation broadcasts your caller's voice, you can:

*While you are listening to the broadcast, **SPK** flashes and **MW** lights steadily on.*

- Do nothing to have the caller's message automatically recorded in your mailbox.
- Press **SPK** or lift the handset to intercept the call.
*If your extension is in the headset mode, you can only press **SPK**.*
- Press **MW** to stop the broadcast and send the call directly to your mailbox.

Using the Message Center

To call the Message Center:

The Message Center key flashes fast (green) when there are new messages not listened to in the Message Center mailbox.

1. Press the Message Center key.
2. If requested by Voice Mail, enter the security code for the Message Center mailbox.

Your MW LED goes out.

*In software versions prior to 03.10.12, you had to press **SPK** before the Message Center key. Just pressing the Message Center key would show you the number of messages waiting in the Message Center Mailbox.*

To Transfer a call to the Message Center:

1. When on an Intercom or outside call, press the Message Center key.
2. Hang up.

You caller will be prompted to leave a message in the Message Center mailbox.

Voice Over

Description



DS1000/2000 || Available.



Get through to a co-worker busy on a handset call — without interrupting their call.

Voice Over lets a user get through to a keyset extension user busy on a handset call. With Voice Over, the busy keyset extension user hears an alert tone followed by the voice of the interrupting party. The keyset extension user can respond to the interrupting party without being heard by the original caller. If desired, the keyset extension user can easily switch between their original caller and the interrupting co-worker. The original caller and the interrupting party can never hear each other's conversation.

Voice Over could help a lawyer, for example, waiting for an urgent call. While on a call with another client, the lawyer's paralegal could announce the urgent call as soon as it comes in. The lawyer could then give the paralegal instructions on how to handle the situation — all without the original client hearing the conversation.

Either a keyset or SLT can initiate a Voice Over, but only a keyset can receive a Voice Over.

Voice Over uses a system Conference circuit. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions

None

Default Setting

Disabled

Programming Guide

Step-by-step guide for setting up Voice Over

Step 1: When an Intercom call is waiting, should extension be able to receive a Voice Over?

If yes

- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 758), enter 3.

If no

- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 758), 0 for no Off-Hook Signaling or 1 for Camp-On beeps.

Step 2: When an Intercom call from their Hotline partner's Hotline key is waiting, should extension be able to receive a Voice Over?

If yes

- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), enter 3.

If no

- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 759), 0 for no Off-Hook Signaling or 1 for Camp-On beeps.

Programming List

Program 1802 - Off-Hook Signaling for Intercom Calls (page 758)

Enter 3 for each extension that should be able to receive Voice Over.

Program 1802 - Off-Hook Signaling for Hotline Partner (page 759)

Enter 3 for each extension that should be able to receive Voice Over when their Hotline partner presses their Hotline key.

Other Related Features

Attendant Position (page 37)

An operator cannot receive a Voice Over from a co-worker since their extension is never busy to Intercom callers.

Call Coverage Keys (page 59)

An extension can Voice Over after calling a co-worker by pressing their Call Coverage key.

Conference (page 142)

An extension user cannot Voice Over to a co-worker busy on a Conference call.

Direct Station Selection (DSS) (page 177)

An extension can Voice Over after using Direct Station Selection to call a co-worker.

Headset Compatibility (page 291)

An extension user cannot Voice Over to a co-worker in the headset mode.

Hotline (page 302)

An extension can Voice Over after calling a co-worker by pressing their Hotline key.

Intercom (page 339)

An extension user can Voice Over to a co-worker busy on an Intercom call.

Message Waiting (page 368)

An extension user cannot leave a Message Waiting after using Voice Over.

Voice Over

Off-Hook Signaling (page 394)

When a user is busy on a call, Off-Hook Signaling indicates that another caller is trying to get through.

Single Line Telephones (page 479)

An SLT can initiate a Voice Over but cannot receive a Voice Over.

Speed Dial (page 481)

An extension user can Voice Over after calling a co-worker by using Personal Speed Dial.

Transfer (page 558)



An extension user can Voice Over after making a Screened Transfer and hearing busy/ring tone.

Feature Operation



To initiate a Voice Over to a busy extension:

You can only leave a Voice Over if you hear busy/ring tone.

1. Dial **9**.

	Two beeps, then you can speak with your co-worker.
	N/A

To respond to a Voice Over alert tone to your extension:

	Two beeps while on a handset call.
	N/A.

1. Press and hold **MIC**.

Release MIC to talk to your initial caller. You can repeat this procedure as long as the Voice Over initiator doesn't hang up.

Description



DS1000/2000 || Available.



Easily adjust the volume of ringing, Paging and other features.

A keyset user can press VOL ▲ and VOL ▼ to adjust the volume of the following features while they are active. Note that the categories grouped together are the same control. For example, adjusting Intercom ringing also adjusts trunk ringing.

- Incoming Intercom and trunk ringing^{1 2}
- Background Music, Paging, Handsfree speaker, and incoming Intercom voice announcements broadcast through your telephone speaker¹
- Handset/headset receiver volume and incoming Voice Over announcements¹
- Off Hook Ringing^{1 2}

¹These features retain the volume levels set by the keyset user.

²These features retain the user-set volume levels after a system reset or power-down.

There are six steps in the Volume Control adjustment range. This makes it easier for the keyset user to set up just the right volume levels.

Enhanced Volume and Contrast Control

Volume Control

Enhanced Volume/Contrast control provides individual controls for:

- Intercom handset calls
- Intercom Handsfree calls
- Trunk handset calls
- Trunk Handsfree calls
- Paging receive volume
- Background Music
- Ringing
- Off-Hook Ringing

There are seven user-selectable values for each setting, and each of these settings is “remembered” by the system. In the event of a power down or system reset, each setting is automatically restored. The user can set the volume while the feature is active or by using the Volume Control Soft Key Menu (see Operation below).

Contrast Control

While a 22-Button or 34-Button Display Telephone is idle, pressing Vol ▲ or Vol ▼ adjusts the contrast of the display. There are seven user-selectable contrast control values. The value a user sets is “remembered” by the system and automatically restored in the event of a power down or system reset. Contrast Control is not available in Super Display Telephones.

Conditions

None

Volume Controls

Default Setting

Enabled

Programming List

Program 1802 - Retain Trunk Volume Setting (page 760)

If this option is enabled (Y), the system remembers the user-set handset and Handsfree volume for each trunk call. If disabled (N), the system uses a median handset and Handsfree volume setting each time the user places a trunk call.

Other Related Features

Alphanumeric Display (page 33)

While the telephone is idle, pressing VOL ▲ and VOL ▼ adjusts the contrast of the 22-Button and 34-Button telephone display. Note that 34-Button Super Display telephones do not provide a contrast adjustment. A system reset or power down returns the user-set contrast setting to a median level.

Call Waiting / Camp-On (page 88)

The extension user cannot adjust the volume of incoming Camp On tone.

Intercom (page 339)

The default Intercom (station-to-station) gain is 0 dB. While on an Intercom call, use VOL ▲ and VOL ▼ to change this setting.

Feature Operation

To adjust the volume of a feature while it is active:

While your keyset is idle, pressing VOL ▲ and VOL ▼ adjusts the display contrast.

1. Press VOL ▲ and VOL ▼.

Enhanced Volume and Contrast Control Operation

22-Button and 34-Button Display Telephone Volume Control Soft Key Menu

To adjust the ringing, off-hook ringing or incoming Page volume:

1. Press **PGM + MORE + VOL**. You see:



1-1 THU 5:15PM
RING OFHK PAGE EXIT

2. Press the key for the type of volume you want to adjust (i.e., ringing, off-hook ringing, or incoming Page). You see (ringing shown):



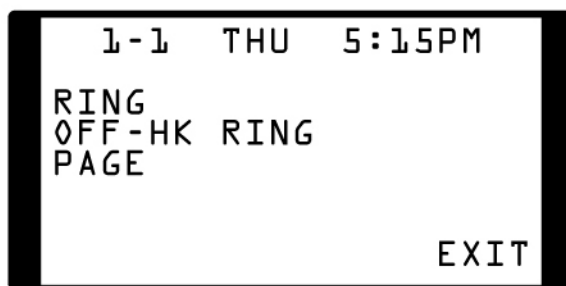
RING VOL ■■■----- 2
RING OFHK PAGE EXIT

3. Press **Vol Up** or **Vol Down** to adjust the selected volume.
- The number to the right of the display indicates the current setting (1-7).

Super Display Telephone Volume Control Soft Key Menu

To adjust the ringing, off-hook ringing or incoming Page volume:

1. Press **PROGRAM + VOLUME**. You see:



2. Press the key for the type of volume you want to adjust (i.e., ringing, off-hook ringing, or incoming page). You see (ringing shown):

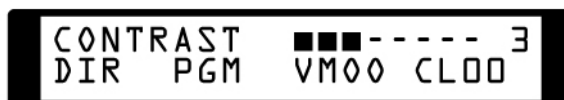


3. Press **Vol Up** or **Vol Down** to adjust the selected volume.
 - The number to the right of the display indicates the current setting (1-7).

22-Button and 34-Button Display Telephone Contrast Control Soft Key Menu

To adjust the display contrast:

- While your telephone is idle, press **Vol Up** or **Vol Down**. You see:



- If you see **BGM VOL** instead, your phone is in the Background Music mode. Press **HOLD** and try again.
- Contrast control is not available on Super Display telephones.

Walking Class of Service

Description



DS1000/2000

Available.



An extension user can temporarily use their Toll Restriction and Class of Service options at a co-worker's phone.

Walking Class of Service allows an extension user to temporarily implement their Toll Restriction and Class of Service settings at a co-worker's keyset. This is normally used to override dialing restrictions at a telephone. For example, an executive with an unrestricted phone can walk to any keyset in the building, implement Walking Class of Service, and dial without restriction. *After the keyset goes idle, Walking Class of Service remains in effect for 10 seconds.* This permits the user to make multiple calls before the keyset returns to its normal restrictions.

Walking Class of Service and Extension Locking

Walking Class of Service overrides Extension Locking. For example:

- Extension 301 is permitted by their Class of Service and Toll Restriction to use Paging and place long distance calls.
- Extension 306 locks their extension. While locked, Class of Service 15 prevents Paging and Toll Level 7 prevents long distance calls. These features are no longer available at extension 306.
- The extension 301 user goes to extension 306 and implements Walking Class of Service.
- The extension 301 user can then use 306 to make long distance calls and Page (even though 306 was locked to prevent those features).

Conditions

None

Default Setting

Day and Night Walking Class of Service disabled in an extension's Class of Service.

Programming Guide

Step-by-step guide for setting up Walking Class of Service

Step 1: Should extension have Walking Class of Service capability?

If yes

- In *Program 0101 - Day Walking Class of Service* (page 623), optionally enter Y to enable Walking Class of Service while the system is in the day mode. This option affects the extension *implementing* this feature, not the extension at which the feature is being used.
- In *Program 0101 - Night Walking Class of Service* (page 623), optionally enter Y to enable Walking Class of Service while the system is in the night mode. This option affects the extension *implementing* this feature, not the extension at which the feature is being used.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.
- In *Program 1807 - PIN Code* (page 773), assign PIN codes to extensions (4 digits, using 0-9, # and *).

If no

- In *Program 0101 - Day Walking Class of Service* (page 623), optionally enter N to disable Walking Class of Service while the system is in the day mode.
- In *Program 0101 - Night Walking Class of Service* (page 623), optionally enter N to disable Walking Class of Service while the system is in the night mode.
- In *Program 1801 - Extension Class of Service Assignment* (page 755), assign Class of Service to extensions.

Walking Class of Service

Programming List

Program 0101 - Day Walking Class of Service (page 623)

Enter Y to enable or N to disable Walking Class of Service while the system is in the day mode. This option affects the extension *implementing* this feature, not the extension at which the feature is being used. For example, if the extension 301 user goes to extension 305 and tries to use Walking Class of Service during the day, this option must be enabled for extension 301.

Program 0101 - Night Walking Class of Service (page 623)

Enter Y to enable or N to disable Walking Class of Service while the system is in the night mode. This option affects the extension *implementing* this feature, not the extension at which the feature is being used. For example, if the extension 301 user goes to extension 305 and tries to use Walking Class of Service at night, this option must be enabled for extension 301.

Program 1801 - Extension Class of Service Assignment (page 755)

Assign Class of Service (1-15) to extensions.

Program 1807 - PIN Code (page 773)

Use this option to assign a PIN code to an extension. PIN codes are 4 digits long, using 0-9, # and *. The PIN code is used for both Extension Locking and Walking Class of Service.

Other Related Features

Extension Locking (page 256)

Extension Locking and Walking Class of Service share the same PIN code.

Off-Premise Extensions / On-Premise SLT Extensions (page 399)

Walking Class of Service is not available to single line telephone users.

Station Message Detail Recording (page 498)

When an extension user implements Walking Class of Service and places a trunk call, the system assigns the SMDR record to the user's extension. The system does not assign the record to the extension at which the call was placed. For example, if the extension 301 user walks to extension 306, implements Walking Class of Service and dials a trunk call, the SMDR record is assigned to extension 301. It is not assigned to extension 306.

Feature Operation

To enable Walking Class of Service at an extension:

When using the procedures that follow to enter a PIN number or extension number:

- **CLEAR** erases your entire entry.
 - **LND** backspaces over (erases) the last digit entered.
1. Press **ICM**.
 2. Dial **##0**.

At a 22- or 34-Button Display Telephone, you see:

```
WALKING COS
ENTER EXTENSION:
```

At a Super Display Telephone, you see:

```
WALKING COS
ENTER EXTENSION:
```

If your extension does not have a PIN code already entered, skip to step 4.

3. Enter *your own* extension number + **HOLD**.
- At a 22- or 34-Button Display Telephone, you see:

```
301:WALKING COS
ENTER PIN CODE:
```

At a Super Display Telephone, you see:

```
301:WALKING COS
ENTER PIN CODE:
```

4. Enter your PIN number + **HOLD**.
If your extension does not have Walking Class of Service capability, you will hear error tone.
5. Place any call or use any feature allowed by your Toll Restriction and Class of Service settings.
You can place additional calls. Walking Class of Service will automatically deactivate after 10 seconds.

Year 2000 Compliance

Description



DS1000/2000 || Available.



The system is fully Y2K (Year 2000) compliant.

The system provides Year 2000 Compliance. The change of the date from one century to the next is handled by the system software and is no different than the change from one year to the next. The day following 12/31/1999 will be 01/01/2000. The system will process the leap year correctly and will not require an upgrade or reprogramming. In addition, the SMDR report will properly show the years in the 21st century.

Conditions

None

Default Setting

Year 2000 Compliance always enabled.

Programming List

None

Other Related Features

Station Message Detail Recording (page 498)

The SMDR report displays four digits for the year (i.e., 2000, 2001).

Time and Date (page 546)

The system is fully Y2K (year 2000) compliant. The year always displays as four digits and the system correctly recognizes leap years.

Feature Operation

None

Chapter 2

Programming

Before You Start Programming

Before Reading This Section

This section provides you with detailed information about the system programs. By changing a program, you change the way the feature associated with that program works. In this section, you find out about each program, the features that the program affects and how to enter the program data into system memory.

Do not start customizing your system without first reading Section 1, Features.

When you want to customize a feature, find it in Section 1 and learn about it. (If you have trouble finding the feature, try cross-referencing it in the Index at the back of this book.) Section 1 will tell you what programs you have to change to get the operation you want. Then, look the program up in this section if you have any questions about how to enter the data.

How to Use This Section

This section lists each program in numerical order. For example, Program 0101 is at the beginning of the section and Program 9999 is at the end. The information on each program is subdivided into the following headings:

Description

Description tells what the program is. Along with the Description are the *Conditions* which describe any limits or special considerations that may apply to the program. For the Default Settings of each programmable option, refer to the information provided with each program. When you first install the system, it uses the Default Setting for all programs.

Introduction to Programming

Before You Start Programming

In each program description there is a *Software History* icon which summarizes how the program works with different system software levels:

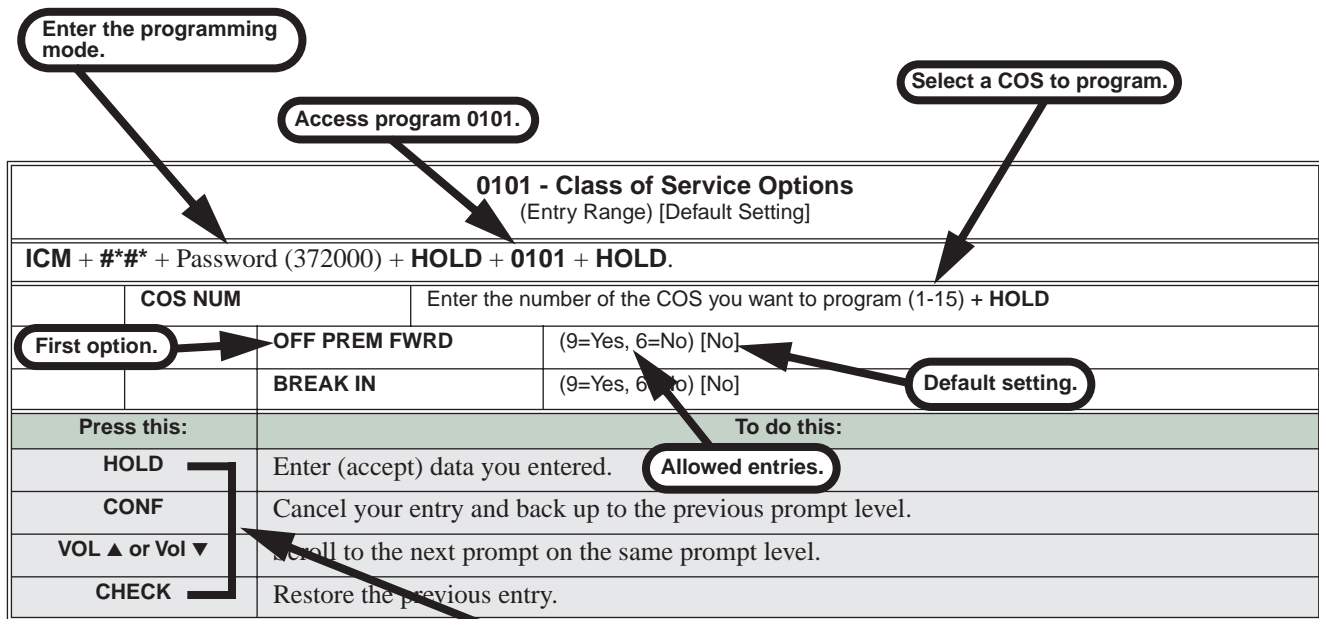


This is the *Software History* icon. Since NEC Unified Solutions is constantly enhancing your system, all options may not be available in all software levels. Read this text to find out the specifics.

Telephone Programming Instructions

Telephone Programming Instructions are programming charts that show you how to enter the program's data into system memory. The example below for **0101 - Class of Service Options** shows the basic components of a typical programming chart. To learn more about entering the programming mode, see *How to Enter the Programming Mode* on the next page.

Sample Telephone Programming Chart



Additional Data Entry Options

- **HOLD** accepts the data you entered.
- **CONF** backs up to the previous prompt level. For example, if you press **HOLD** at the **OFF PREM FWRD** prompt, you back up to the **COS NUM** prompt.
- Use Vol ▲ and Vol ▼ to scroll through the prompts. For example, if you press Vol ▲ at the **OFF PREM FWRD** prompt, you go to the **BREAK IN** prompt.
- While programming an option, pressing **CHECK** restores the previous entry.

Introduction to Programming Before You Start Programming

How to Enter the Programming Mode

To enter the programming mode:

Entering the Programming Mode						
From any working display telephone:						
<ul style="list-style-type: none"> • Press ICM. • Dial ###. 						
	DSxxxx VER xx.xx.xx PASSWORD	Enter the system password + HOLD . <ul style="list-style-type: none"> • The first line of the display shows the system type and software level. • The default passwords are shown below. Optionally use program 9905 - <i>Password</i> to change the system passwords. 				
			Password Level	Password	Level	
			System Administrator 1	0000	1	
			System Administrator 2	9999	2	
			Installer	372000	3	

The following chart shows the programs available at each password level.

Programs Available at Each Password Level	
Logging On with this Password:	Gives you access to these programs:
System Administrator 1 (level 1) Password = 0000	Program 0302 - System Identification (page 639) Program 1101 - System Speed Dial Numbers (page 719)
System Administrator 2 (level 1) Password = 9999	Program 0302 - System Identification (page 639) Program 0801 - Selectable Display Messages (page 697) Program 1101 - System Speed Dial Numbers (page 719) Program 1701 - Programmable Function Key Assignments (page 737) Program 1702 - Personal Speed Dial (page 743) Program 1703 - DSS Key Assignment (page 745) Program 1704 - DSS Console Key Assignment (page 746)
Installer (level 3) Password - 372000	All

Introduction to Programming

Before You Start Programming

How to Exit the Programming Mode

Exiting the Programming Mode	
When you see one of the following displays:	
<ul style="list-style-type: none"> If you don't see any of the following prompts, press CONF until you do. 	
DSxxx VER xx.xx.xx PASSWORD OR USER: nnnnnnnnn ENTER PROGRAM	<ul style="list-style-type: none"> Press and release the hookswitch. OR Press SPK. <p>When you exit programming, the system automatically stores your entries in Random Access Memory (RAM).</p>

Using Keys to Move Around in the Programs

Once you enter the programming mode, use the keys in the following chart to enter data, edit data and move around in the menus.

Table 15: Keys for Entering Data

Use this key:	When you want to:
0-9, # and *	Enter data into the program.
HOLD	Complete the programming step you just made (like pressing Enter on a PC keyboard). When a program entry displays, press HOLD to accept the entry (i.e., bypass the entry without changing it).
CONF	Back up one step in the program.
LND	Delete the entry to the left (like pressing Backspace on a PC keyboard). To delete an entire name entry (without backspacing over each letter), just reenter the name without pressing LND first.
CLEAR	Erase the entire command line you just entered and undefine the entry. In many cases, this changes a Yes entry to No.
CHECK	Erase the entry you just made and replace it with the prior stored entry.
VOL ▲	Scroll forward through a list of entries in a program. If you enter data and then press this key, in many cases the system accepts the data before scrolling forward to the next entry.
VOL ▼	Scroll backward through a list of entries in a program. If you enter data and then press this key, in many cases the system accepts the data before scrolling backward to the previous entry.
ICM	Enable the scroll mode. When you press this key and it lights, you can then press VOL ▲ and VOL ▼ to scroll through the options. To choose the displayed value, press HOLD .

Introduction to Programming

Before You Start Programming

Connecting a PC or Printer

Refer to your system's *Hardware Manual* or the *Quick Setup Guide*.

Programming Names and Text Messages

Several programs require you to enter text. Use the following chart when entering and editing text.

Table 16: Keys for Entering Names

Name Programming (03.10.08 or Higher)									
Key	Press a key the indicated number of times for desired character								
	1 Time	2 Times	3 Times	4 Times	5 Times	6 Times	7 Times	8 Times	9 Times
1	&	-	/	'	1				
2	A	B	C	a	b	c	2		
3	D	E	F	d	e	f	3		
4	G	H	I	g	h	i	4		
5	J	K	L	j	k	l	5		
6	M	N	O	m	n	o	6		
7	P	Q	R	S	p	q	r	s	7
8	T	U	V	t	u	v	8		
9	W	X	Y	Z	w	x	y	z	9
0	space	:	0						
#	Not used								
*	Not used								
After selecting a letter, press a key for another letter or wait 2 seconds for the cursor to automatically advance.									
Additional Name Programming Options									
HOLD	Save name. In system programming, HOLD saves and exits name programming.								
CONF	Exit name programming without saving name.								
VOL Up	Scroll the cursor to the left.								
VOL Dn	Scroll the cursor to the right.								
MW	Put the cursor after the last entry.								
LND	Delete the character under the cursor.								
FLASH	Delete the character to the right of the cursor.								
CLEAR	Clear the entire entry.								
CHECK	Restore the previous entry,								

Introduction to Programming

Before You Start Programming

Name Programming (Prior to 03.10.08)					
Press this key:	Then one of these keys to enter the character in the white cell:				
	1	2	3	4	#
1	&	- (dash)	/ (backslash)	' (apostrophe)	1
2	A	B	C		2
3	D	E	F		3
4	G	H	I		4
5	J	K	L		5
6	M	N	O		6
7	P	Q	R	S	7
8	T	U	V		8
9	W	X	Y	Z	9
0	SPACE	:			0
*					*
#					

To enter characters in lower case (e.g., **e** instead of **E**), press **MW** before pressing the key in the first shaded column. Use **LND** to backspace over (erase) any characters you want to correct.

0100 - Class of Service

0101 - Class of Service Options

Description



DS1000/2000

- The *Allow Name Programming* and *Allow Language Programming* options require software version 03.10.08 or higher.
- The *Call Screening* option requires software version 03.20.07 or higher.

Use **Program 0101- Class of Service Programming** to set up the Class of Service options. The system has 15 Classes of Service, numbered 1-15. You assign Classes of Service to extensions in *Program 1801: Extension Class of Service Assignment* on page 755. Many extensions can have the same Class of Service. Class of Service 1 is normally reserved for the attendant (port 1).

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Off Premise Call Forward	Use this option to enable or disable an extension's ability to use Off Premise Call Forwarding. (When disabled, the Off Premise Call Forwarding option is hidden on the telephone display.) <ul style="list-style-type: none"> • See <i>Call Forwarding Off Premise</i> on page 75 for more. 	OFF PREM FWRD? Y = Enable N = Disable	N
Barge-In (Intrusion)	Use this option to enable or disable an extension's ability to Barge In on a co-worker. <ul style="list-style-type: none"> • See <i>Barge In (Intrusion)</i> on page 56 for more. 	BREAK-IN? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Extension	Use this option to enable or disable an extension's ability to Camp-On to a busy extension. Enter Y to allow the extension to Camp-On to a busy co-worker. Enter N to prevent the extension from Camping-On to a busy co-worker. Entering N also automatically converts an extension's Camp On to Callback. <ul style="list-style-type: none"> • See <i>Call Waiting / Camp-On</i> on page 88 for more. • See <i>Callback</i> on page 92 for more. 	CAMP-ON BUSY EXT? Y = Enable N = Disable	Y
Internal Call Forwarding	Use this option to enable or disable an extension's ability to use Internal Call Forwarding and Off Premise Call Forwarding. <ul style="list-style-type: none"> • See <i>Call Forwarding</i> on page 63 for more. • See <i>Call Forwarding Off Premise</i> on page 75 for more. 	CALL FORWARDING? Y = Enable N = Disable	Y

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
System Speed Dial Access	Use this option to enable or disable an extension's ability to access System Speed Dial. <ul style="list-style-type: none"> See <i>System Speed Dial</i> on page 481 for more. 	SYS SPDL ACCESS? Y = Enable N = Disable	Y
Extended Ring	Use this option to enable or disable Extended Ringing at the extension. <ul style="list-style-type: none"> See <i>Extended Ringing</i> on page 237 for more. 	EXTENDED RING? Y = Enabled N = Disable	N
Privacy	Use this option to enable or disable Privacy at the extension. <ul style="list-style-type: none"> See <i>Privacy</i> on page 435 for more. 	PRIVACY? Y = Enable N = Disable	N
Trunk (Line) Queuing Priority	Use this option to enable or disable Trunk (Line) Queuing Priority at the extension. If more than one extension with Priority is queued on a busy trunk, the system services the Priority extensions on a first-queued, first-served basis. <ul style="list-style-type: none"> See <i>Trunk Queuing Priority</i> on page 569 for more. 	LINE Q PRIORITY? Y = Enable N = Disable	N
Forced Trunk Disconnect	Use this option to enable or disable an extension's ability to use Forced Trunk Disconnect. <ul style="list-style-type: none"> See <i>Forced Trunk Disconnect</i> on page 271 for more. 	FORCE DISCONNECT? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Line	Use this option to enable or disable an extension's ability to Camp-On to a busy trunk. <ul style="list-style-type: none"> See <i>Trunk (Line) Queuing / Trunk Call-back</i> on page 569 for more. 	CAMP ON TO LINES? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Initiate All Call Page	Use this option to enable or disable an extension's ability to make an All Call Paging announcement. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ALL CALL? Y = Enable N = Disable	Y
Access Page Zone 1	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 1. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 1? Y = Enable N = Disable	Y
Access Page Zone 2	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 2. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 2? Y = Enable N = Disable	Y
Access Page Zone 3	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 3. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 3? Y = Enable N = Disable	Y

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Access Page Zone 4	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 4. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 4? Y = Enable N = Disable	Y
Access Page Zone 5	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 5. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 5? Y = Enable N = Disable	Y
Access Page Zone 6	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 6. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 6? Y = Enable N = Disable	Y
Access Page Zone 7	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 7. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 7? Y = Enable N = Disable	Y
Silent Monitor	Use this option to enable or disable an extension's ability to use Silent Monitor. <ul style="list-style-type: none"> See <i>Monitor / Silent Monitor</i> on page 378 for more. 	SILENT MONITOR? Y = Enable N = Disable	N
Flash for Single Line Sets	Use this option to enable or disable hook-flash for analog single line extensions and 2-OPX Modules. <ul style="list-style-type: none"> See <i>Flash</i> on page 264 for more. 	FLASH FOR SLT? Y = Enable N = Disable	Yes
ACD Supervisor	This option is not used.	ACD SUPERVISOR? Y = Enable N = Disable	N
Single Ring for Single Line Sets	Use this option to enable or disable single ring for single line telephones. If enabled, analog single line telephones always receive single ringing for trunk calls. If disabled, trunk ringing at analog extensions always follows the ringing pattern of the trunk. <ul style="list-style-type: none"> See <i>Central Office Calls, Answering</i> on page 113 for more. See <i>Off-Premise Extensions / On-Premise SLT Extensions</i> on page 399 for more. 	SINGLE RING? Y = Enable N = Disable	N
View System Alarms	<ul style="list-style-type: none"> This option is not used. 	VIEW SYS ALARMS? Y = Enable N = Disable	N
Automatic Hold	Use this option to enable or disable Automatic Hold at an extension. <ul style="list-style-type: none"> See <i>Hold</i> on page 296 for more. 	AUTO HOLD? Y = Enable N = Disable	N

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Activate Night Mode	Use this option to enable or disable an extension's ability to activate Night Service. <ul style="list-style-type: none"> See <i>Night Service / Night Ring</i> on page 389 for more. 	ACTIVATE NITES? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Direct Trunk Access	Use this option to enable or disable an extension's ability to use Direct Trunk Access. Note that enabling Direct Trunk Access allows the user to bypass Toll Restriction. <ul style="list-style-type: none"> See <i>Central Office Calls, Placing</i> on page 119 for more. 	DIRECT TRK ACCES? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Remote Call Forwarding / Alternate Attendant	<ul style="list-style-type: none"> This option is not used. 	REMOTE FWRD? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Soft Keys	Use this option to enable or disable a display set's Interactive Soft Keys. <ul style="list-style-type: none"> See <i>Interactive Soft Keys</i> on page 306 for more. 	SOFTKEYS Y = Enable N = Disable	Y
Conversation Record	Use this option to enable or disable an extension's ability to record conversations into their Voice Mail mailbox. If enabled, the user can press either their Conversation Record key or RECORD soft key to initiate recording. <ul style="list-style-type: none"> See <i>Voice Mail</i> on page 580 for more. 	RECORD CONV Y = Enable N = Disable	N
CLID Display	Use this option to enable or disable Caller ID. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	CLID DISPLAY? Y = Enable N = Disable	Y
2nd Call CLID (Extension Level Call Waiting Caller ID)	Use this option to enable or disable Second Call Caller ID. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	2nd CALL CLID? Y = Enable N = Disable	Y
3rd Party Caller ID	Use this option to enable or disable Third Party Call Caller ID Check. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	3rd PARTY CLID? Y = Enable N = Disable	N
CLID Display Separator	Use this option to enable or disable the Caller ID display separator. <ul style="list-style-type: none"> See <i>Caller ID</i> on page 95 for more. 	'-' IN CID DISP? Y = Enable N = Disable	Y
Forced Account Codes	Use this option to enable or disable Forced Account Codes. disabled, Optional Account Codes are still available. <ul style="list-style-type: none"> See <i>Account Codes</i> on page 24 for more. 	FORCE AC CODES? Y = Enable N = Disable	N

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Verify Account Codes	<p>Use this option to enable or disable Verified Account Codes. If enabled, the system compares the Account Code the user dials to the entries in <i>1201 - Verified Account Codes Table</i> on page 721.</p> <ul style="list-style-type: none"> See <i>Account Codes</i> on page 24 for more. 	<p>VERIFY AC CODES? Y = Enable N = Disable</p>	N
Forced Account Codes for Toll Calls Only	<p>Use this option to enable or disable Forced Account Codes for toll (long distance) calls. If disabled, Forced Account Codes apply to all outgoing trunk codes.</p> <ul style="list-style-type: none"> See <i>Account Codes</i> on page 24 for more. 	<p>AC FOR TOLL ONLY? Y = Enable N = Disable</p>	N
Ring Type Configuration	<p>Use this option to enable or disable Ring Type Configuration. If enabled, the extension user can customize the sound of their Ring Types by pressing their CONFIG (CNFG) soft key. If disabled, the extension user cannot customize their Ring types and the system hides the CONFIG (CNFG) soft key.</p> <ul style="list-style-type: none"> See <i>Distinctive Ringing</i> on page 200 for more. 	<p>RING TYPE CONFIG? Y = Enable N = Disable</p>	N
Extension Ring Override	<p>Use this option to enable or disable an extensions ability to customize the distinctive ringing for Day Ring, Night Ring, and Delay Ring trunk calls on line keys by pressing the ASSIGN (ASGN) soft key. If disabled, the extension cannot customize the distinctive ringing and the system hides the ASSIGN (ASGN) soft key.</p> <p>If you enable this option, and the user customizes their Extension Override settings, disabling this option will cancel the user's custom settings.</p> <ul style="list-style-type: none"> See <i>Distinctive Ringing</i> on page 200 for more. 	<p>EXT RING OVRD? Y = Enable N = Disable</p>	N

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Key Ring Override	<p>Use this option to enable or disable Key Ring Override. If enabled, this option allows an extension to customize the distinctive ringing of individual Call Coverage, Group Call Pickup, and Line Keys by pressing the KEY soft key. If disabled (N), the extension cannot customize the distinctive ringing. The default setting for this option is disabled (N).</p> <p>If you enable this option, and the user customizes their Key Ring Override settings, disabling this option will cancel the user's custom settings.</p> <ul style="list-style-type: none"> • See <i>Distinctive Ringing</i> on page 200 for more. 	<p>KEY RING OVRD? Y = Enable N = Disable</p>	N
SLT Special Dial Tone	<p>Use this option to enable or disable SLT Special Dial Tone in a single line port's Class of Service. (Note that this option has no effect of keyset ports with the same COS.)</p> <ul style="list-style-type: none"> • See <i>Message Waiting</i> on page 368 for more. 	<p>SLT SP DIALTONE? Y = Enable N = Disable</p>	N
SLT High Voltage Message Waiting	<p>Use this option to enable or disable High Voltage Message Waiting for single line ports. High Voltage Message Waiting is not available in DS1000. If both this option and 0101 - <i>SLT FSK Message Waiting</i> are enabled, the system uses FSK Message Waiting.</p> <ul style="list-style-type: none"> • See <i>Message Waiting</i> on page 368 for more. 	<p>SLT MW LAMP HV? Y = Enable N = Disable</p>	N
SLT FSK Message Waiting	<p>Use this option to enable or disable FSK Message Waiting for single line ports. If both this option and 0101 - <i>SLT High Voltage Message Waiting</i> are enabled, the system uses FSK Message Waiting.</p> <ul style="list-style-type: none"> • See <i>Message Waiting</i> on page 368 for more. 	<p>SLT MW LAMP FSK? Y = Enable N = Disable</p>	N
SLT Loop Disconnect	<p>Use this option to enable or disable the ability of the system to send a loop supervision disconnect signal (i.e., drop pulse) to single line ports. Set this option for compatibility with the connected SLT device. (This option is always disabled for Voice Mail ports.)</p> <ul style="list-style-type: none"> • See <i>Off-Premise Extensions / On-Premise SLT Extensions</i> on page 399 for more. 	<p>SLT LOOP DISCON? Y = Enable N = Disable</p>	N

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Enhanced LND	<p>Use this option to enable or disable Enhanced Last Number Redial. If enabled, the extension has Enhanced Last Number Redial with the 5 number redial buffer and the enhanced operation. If disabled, the extension has traditional Last Number Redial with a single number redial buffer and the standard operation.</p> <ul style="list-style-type: none"> • See <i>Last Number Redial</i> on page 351 for more. 	ENHANCED LND? Y = Enable N = Disable	Y
Day Walking Class of Service	<p>Use this option to enable or disable Walking Class of Service for the extension while the system is in the day mode. This option affects the extension <i>implementing</i> this feature, not the extension at which the feature is being used. For example, if the extension 301 user goes to extension 305 and tries to use Walking Class of Service during the day, this option must be enabled for extension 301.</p> <ul style="list-style-type: none"> • See <i>Walking Class of Service</i> on page 606 for more. 	DAY-WALKING COS? Y = Enable N = Disable	N
Night Walking Class of Service	<p>Use this option to enable or disable Walking Class of Service for the extension while the system is in the night mode. This option affects the extension <i>implementing</i> this feature, not the extension at which the feature is being used. For example, if the extension 301 user goes to extension 305 and tries to use Walking Class of Service at night, this option must be enabled for extension 301.</p> <ul style="list-style-type: none"> • See <i>Walking Class of Service</i> on page 606 for more. 	NIGHT-WALKING-COS? Y = Enable N = Disable	N
Extension Locking	<p>Use this option to enable or disable Extension Locking for the extension.</p> <ul style="list-style-type: none"> • See <i>Extension Locking</i> on page 256 for more. 	EXT LOCKING? Y = Enable N = Disable	N
DND Override	<p>If enabled, an extension user can dial 1 or press their DND Override soft key to override an extension's Do Not Disturb. If disabled, an extension cannot dial 1 to override an extension's DND and the DND Override soft key is unavailable.</p> <p>This option does not apply when an extension user presses their Hotline key, since Hotline keys always provide the DND Override option.</p> <ul style="list-style-type: none"> • See <i>Do Not Disturb Override</i> on page 224 for more. 	DND OVERRIDE? Y = Enable N = Disable	N

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Unsupervised Conference	<p>Use this option to enable or disable Unsupervised Conference for the extension.</p> <p>Also enable this option to use Trunk-To-Trunk Transfer to set up a tandem call. See <i>Using Trunk-To-Trunk Transfer to Set Up a Tandem Call</i> on page 541 for more.</p> <p>This option ensures that enabling <i>1003-Tandem Trunk</i> for Off Premise Call Forwarding does also not inadvertently enable Unsupervised Conference.</p> <ul style="list-style-type: none"> • See <i>Tandem Trunking / Unsupervised Conference</i> on page 538 for more. 	<p>UNSUPERVSD CONF Y = Enable N = Disable</p>	N
Allow DID Calls	<p>Use this option to enable or disable the extension's ability to receive DID calls. If enabled, the extension will receive DID calls routed to it by the system. If disabled, the extension will not receive DID calls.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Dialing</i> on page 155 for more. 	<p>ALLOW DID CALLS? Y = Enable N = Disable</p>	Y
DID Camp On	<p>Use this option to enable or disable the ability of a DID caller to Camp On to the extension when it is busy. If enabled, DID calls will automated Camp On when routed to the extension while it is busy. If disabled, the incoming call will not Camp On and will instead follow the DID Intercept programming.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Dialing</i> on page 155 for more. 	<p>DID CAMP ON? Y = Enable N = Disable</p>	Y
Outgoing ANI Privacy	<p>Use this option to enable or disable the extension's ability to send outbound Automatic Number Identification (ANI) over E1 trunks using MFC dialing. <i>This option only applies to outbound E1 calls using MFC dialing, and does not apply to systems installed in North America</i></p> <ul style="list-style-type: none"> • See <i>T1 Trunking</i> on page 530 for more. 	<p>OTG ANI PRIVACY Y = Enable N = Disable</p>	N
Caller ID Alert Lamp	<p>Use this option to enable or disable the Ring/Message Lamp for Caller ID. If enabled, the lamp will flash whenever the extension receives new Caller ID logs. If disabled, the lamp will not flash for Caller ID.</p> <ul style="list-style-type: none"> • See <i>Caller ID Logging</i> on page 102 for more. 	<p>CLID ALERT LAMP? Y = Enable N = Disable</p>	Y

0100 - Class of Service

0101 - Class of Service Options

Table 17: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Allow Name Programming (Software version 03.10.08 or higher)	Use this option to enable or disable name programming at an extension. If enabled, the extension user can access name programming via their soft keys. If disabled, name programming is not allowed. <ul style="list-style-type: none"> • See <i>Names for Extensions and Trunks</i> on page 384 for more. 	ALLOW NAME PGM? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Allow Language Programming (Software version 03.10.08 or higher)	Use this option to enable or disable an extension's ability to set their display language. If enabled, the extension user can access language programming via their soft keys. If disabled, language programming is not allowed. <ul style="list-style-type: none"> • See <i>Language Selection</i> on page 348 for more. 	ALLOW LANG PGM? Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Call Screening (Software version 03.20.07 or higher)	Use this option to enable or disable Call Screening. If enabled, a display keyset use can listen to (screen) a voice mail message as it is being left in their mailbox. If disabled, voice mail messages go to the mailbox normally. <ul style="list-style-type: none"> • See <i>Call Screening</i> in the <i>IntraMail System Guide</i> for more. 	CALL SCREENING? Y = Enable N = Disable	N

0100 - Class of Service

0101 - Class of Service Options

Telephone Programming Instructions

0101 - Class of Service Options (Page 1 of 2) (Entry Range) [Default Setting]			
ICM + ##* + Password (372000) + HOLD + 0101 + HOLD.			
	COS NUM	Enter the number of the COS you want to program (1-15) + HOLD	
	OFF PREM FWRD	(9=Yes, 6=No) [No]	
	BREAK IN	(9=Yes, 6=No) [COS 1=No, COS 2-15=Yes]	
	CAMP-ON BUSY EXT	(9=Yes, 6=No) [Yes]	
	CALL FORWARDING	(9=Yes, 6=No) [Yes]	
	SYS SPDL ACCESS	(9=Yes, 6=No) [Yes]	
	EXTENDED RING	(9=Yes, 6=No) [No]	
	PRIVACY	(9=Yes, 6=No) [No]	
	LINE Q PRIORITY	(9=Yes, 6=No) [No]	
	FORCE DISCONNECT	(9=Yes, 6=No) [COS 1=Yes, COS 2-15=No]	
	CAMP-ON TO LINES	(9=Yes, 6=No) [COS 1=Yes, COS 2-15=No]	
	PAGE ALL CALL	(9=Yes, 6=No) [Yes]	
	PAGE ZONE 1	(9=Yes, 6=No) [Yes]	
	PAGE ZONE 2	(9=Yes, 6=No) [Yes]	
	PAGE ZONE 3	(9=Yes, 6=No) [Yes]	
	PAGE ZONE 4	(9=Yes, 6=No) [Yes]	
	PAGE ZONE 5	(9=Yes, 6=No) [Yes]	
	PAGE ZONE 6	(9=Yes, 6=No) [Yes]	
	PAGE ZONE 7	(9=Yes, 6=No) [Yes]	
	SILENT MONITOR	(9=Yes, 6=No) [No]	
	FLASH FOR SLT	(9=Yes, 6=No) [Yes]	
	ACD SUPERVISOR	(9=Yes, 6=No) [No]	
	SINGLE RING	(9=Yes, 6=No) [No]	
	VIEW SYS ALARMS	(9=Yes, 6=No) [No]	
	AUTO HOLD	(9=Yes, 6=No) [No]	
	ACTIVATE NITES	(9=Yes, 6=No) [COS 1=Yes, COS 2-15=No]	
	DIRECT TRUNK ACCESS	(9=Yes, 6=No) [COS 1=Yes, COS 2-15=No]	
	REMOTE FWRD	(9=Yes, 6=No) [COS 1=Yes, COS 2-15=No]	
	SOFTKEYS	(9=Yes, 6=No) [Yes]	
	RECORD CONV	(9=Yes, 6=No) [No]	
	CLID DISPLAY	(9=Yes, 6=No) [Yes]	
	2nd CALL CLID	(9=Yes, 6=No) [Yes]	
	3rd PARTY CLID	(9=Yes, 6=No) [No]	
	IN CID DISP	(9=Yes, 6=No) [Yes]	

0100 - Class of Service

0101 - Class of Service Options

0101 - Class of Service Options (Page 2 of 2) (Entry Range) [Default Setting]			
		FORCE AC CODES	(9=Yes, 6=No) [No]
		VERIFY AC CODES	(9=Yes, 6=No) [No]
		AC FOR TOLL ONLY	(9=Yes, 6=No) [No]
		RING TYPE CONFIG	(9=Yes, 6=No) [No]
		EXT RING OVRD	(9=Yes, 6=No) [No]
		KEY RING OVRD	(9=Yes, 6=No) [No]
		SLT SP DIALTONE	(9=Yes, 6=No) [No]
		SLT MW LAMP HV	DS2000 only (9=Yes, 6=No) [No]
		SLT MW LAMP FSK	(9=Yes, 6=No) [No]
		SLT LOOP DISCON	(9=Yes, 6=No) [No]
		ENHANCED LND	(9=Yes, 6=No) [Yes]
		DAY WALKING-COS	(9=Yes, 6=No) [No]
		NITE WALKING-COS	(9=Yes, 6=No) [No]
		EXT LOCKING	(9=Yes, 6=No) [No]
		DND OVERRIDE	(9=Yes, 6=No) [No]
		UNSUPERVSD CONF	(9=Yes, 6=No) [No]
		ALLOW DID CALLS	(9=Yes, 6=No) [Yes]
		DID CAMP ON	(9=Yes, 6=No) [Yes]
		OTG ANI PRIVACY	(9=Yes, 6=No) [No]
		CLID ALERT LAMP	(9=Yes, 6=No) [Yes]
		ALLOW NAME PGM	(9=Yes, 6=No) [COS 1=Yes, COS 2-15=No]
		ALLOW LANG PGM	(9=Yes, 6=No) [COS 1=Yes, COS 2-15=No]
		CALL SCREENING	(9=Yes, 6=No) [No]
Press this:		To do this:	
HOLD		Enter (accept) data you entered.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
CHECK		Restore the previous entry.	

0200 - Tenant Options

0201 - Tenant Option Programming

Description



DS1000/2000

The *Name Format* option requires software version 03.20.07 or higher.

Use **Program 0201- Tenant Option Programming** to set up various options for Tenant Groups.

Conditions

None

Table 18: Program 0201 - Tenant Options

Option	Description	Entries	Default
Call Waiting (Camp-On) Tone	Use this option to enable or disable system wide Call Waiting Tones (double beeps). <ul style="list-style-type: none"> See <i>Call Waiting / Camp-On</i> on page 88 for more. 	CALL WAIT? Y = Enable N = Disable	Y
Handsfree Reply on Intercom Calls	Use this option to enable or disable system-wide Handsfree Reply for voice-announced Intercom calls. If you enable this option, you must also enable <i>Voice-Announced Intercom Calls</i> below. <ul style="list-style-type: none"> See <i>Handsfree and Handsfree Answer-back</i> on page 287 for more. 	HF REPLY ON ICM? Y = Enable N = Disable	Y
Voice-Announced Intercom Calls	Use this option to enable or disable system-wide voice-announced Intercom calls. You must enable this option if you have <i>Handsfree Reply on Intercom Calls</i> enabled above. If you disable this option, extension users can only receive ringing Intercom calls. <ul style="list-style-type: none"> See <i>Handsfree and Handsfree Answer-back</i> on page 287 for more. 	VOICE ANNOUNCE? Y = Enable N = Disable	Y
Automatic Handsfree	Use this option to enable or disable Automatic Handsfree system-wide. <ul style="list-style-type: none"> See <i>Automatic Handsfree</i> on page 45 for more. See <i>Handsfree and Handsfree Answer-back</i> on page 287 for more. 	AUTO HANDSFREE? Y = Enable N = Disable	Y
Music on Hold	Use this option to enable or disable Music on Hold system wide. <ul style="list-style-type: none"> See <i>Music on Hold</i> on page 381 for more. 	ENABLE MOH? Y = Enable N = Disable	Y
MOH on Transfer	Use this option to enable or disable MOH for transferred calls system-wide. If enabled, transferred callers hear Music on Hold while waiting. If disabled, transferred callers hear ringback. <ul style="list-style-type: none"> See <i>Transfer</i> on page 558 for more. 	MOH ON TRANSFER? Y = Enable N = Disable	N

0200 - Tenant Options

0201 - Tenant Option Programming

Table 18: Program 0201 - Tenant Options

Option	Description	Entries	Default
Background Music	<p>Use this option to enable or disable Background Music system-wide.</p> <ul style="list-style-type: none"> • See <i>Background Music</i> on page 53 for more. 	ENBLE BGM? Y = Enable N = Disable	N
Enable Account Codes in Speed Dial	<p>Enable (Y) this option if users should be able to store Account Codes in Speed Dial bins. This causes the stored Account Code to properly display in the SMDR report <i>Account</i> column. They do not dial out as part of the stored number.</p> <p>If you disable (N) this option, Account Codes stored in Speed Dial bins dial out as part of the stored number and display in the SMDR report <i>Number Dialed</i> column.</p> <ul style="list-style-type: none"> • See <i>Account Codes</i> on page 24 for more. • See <i>Speed Dial</i> on page 481 for more. 	AC CODES IN SPDL? Y = Enable N = Disable	N
# Key to Enter Account Codes	<p>Use this option to enable (Y) an extension user to dial # to enter an Account Code while on an outside call. If disabled, the extension user can only enter an Account Code by pressing the Account Code soft key or a uniquely programmed Account Code Programmable Function Key.</p> <ul style="list-style-type: none"> • See <i>Account Codes</i> on page 24 for more. 	“#” KEY AC CODES? Y = Enable N = Disable	N
Account Code Toll Level	<p>If Program 0101: Forced Account Codes for Toll Calls Only (page 621) is enabled, use this option to differentiate toll calls from local calls for Account Code purposes.</p> <p>If you enter 0 for this option, toll calls are any calls the user dials that begin with 0 or 1.</p> <p>If you enter a toll level for this option (1-7), the system uses the toll level options programmed in <i>0601 - Configure Toll Level Options</i> on page 683 for that level to determine if the call is local or toll.</p> <ul style="list-style-type: none"> • If the toll level is set to deny the call, it is considered to be a long distance call and the system requires that the user must have entered an Account Code. • If the toll level permits the call, it is considered to be a local call and no Account Code entry is required. • See <i>Account Codes</i> on page 24 for more. 	AC CODE TOLL LVL? 0-7	0

0200 - Tenant Options

0201 - Tenant Option Programming

Table 18: Program 0201 - Tenant Options

Option	Description	Entries	Default
View Account Codes	Use this option to show or hide the Account Codes a user enters on their telephone's display. If enabled (Y), the dialed Account Codes show on the display. <i>This may be a security risk, since a co-worker can easily read the telephone display as the user enters their Account Code.</i> If disabled, Account Codes are shown as * characters on the telephone display. <ul style="list-style-type: none"> See <i>Account Codes</i> on page 24 for more. 	VIEW AC CODES? Y = Enable N = Disable	N
Name Format (Software version 03.20.07 or higher)	Use the option to determine how extension names should be entered in 1801-Extension Names or via the telephone. <ul style="list-style-type: none"> See <i>Directory Dialing</i> in the <i>IntraMail System Guide</i> for more. 	NAME FMT? 1 = First-last 2 = Last-first	1 (First-last)
CPRU Relay (DS2000 Only)	Use this option to control the CPRU relay. This relay can activate for a Digital Door Box or External Paging. <ul style="list-style-type: none"> See <i>Door Box</i> on page 226 for more. See <i>Paging</i> on page 409 for more. 	CPU RELAY? 0 = Not assigned 1 = Door Box relay control 2 = Page Zone control	0 (Not assigned)
CPRU Relay Page Zone Assignment (DS2000 Only)	If the CPRU is assigned to Page Zone control (2) in the previous option, use this option to designate the Page Zone that will activate the relay. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 1 = External Paging (zone 1 and All Call) 2-7 = Internal zones 2-7	1 (External Paging)
DOOR1 Relay (DS1000 Only)	Use this option to control the relay in the DS1000 DOOR1 jack. This relay can activate for an Analog Door Box or Paging. <ul style="list-style-type: none"> See <i>Door Box</i> on page 226 for more. See <i>Paging</i> on page 409 for more. 	DOOR1 RELAY? 0 = Not assigned 1 = Analog Door Box relay control 2 = Page Zone control	0 (Not assigned)
DOOR1 Relay Page Zone Assignment (DS1000 Only)	If the DOOR1 relay is assigned to Page Zone control (2) in the previous option, use this option to designate the Page Zone that will activate the relay. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 1 = External Paging (zone 1 and All Call) 2-7 = Internal zones 2-7	1 (External Paging)
DOOR2 Relay (DS1000 Only)	Use this option to control the relay in the DS1000 DOOR2 jack. This relay can activate for an Analog Door Box or Paging. <ul style="list-style-type: none"> See <i>Door Box</i> on page 226 for more. See <i>Paging</i> on page 409 for more. 	DOOR2 Relay? 0 = Not assigned 1 = Analog Door Box relay control 2 = Page Zone control	0 (Not assigned)
DOOR2 Relay Page Zone Assignment (DS1000 Only)	If the DOOR2 relay is assigned to Page Zone control (2) in the previous option, use this option to designate the Page Zone that will activate the relay. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	PAGE ZONE 1 = External Paging (zone 1 and All Call) 2-7 = Internal zones 2-7	1 (External Paging)

0200 - Tenant Options

0201 - Tenant Option Programming

Telephone Programming Instructions

0201 - Tenant Option Programming (Entry Range) [Default Setting]	
ICM + #*#* + Password (372000) + HOLD + 0201 + HOLD.	
CALL WAIT	(9=Yes, 6=No) [Yes]
HF REPLY ON ICM	(9=Yes, 6=No) [Yes]
VOICE ANNOUNCE	(9=Yes, 6=No) [Yes]
AUTO HANDSFREE	(9=Yes, 6=No) [Yes]
ENABLE MOH	(9=Yes, 6=No) [Yes]
MOH ON TRANSFER	(9=Yes, 6=No) [No]
ENABLE BGM	(9=Yes, 6=No) [No]
AC CODES IN SPDL	(9=Yes, 6=No) [No]
"#" KEY AC CODES	(9=Yes, 6=No) [No]
AC CODE TOLL LVL	(0-7) [0]
VIEW AC CODES	(9=Yes, 6=No) [No]
NAME FMT?	(1=First/Last, 2=Last/First) [1]
CPU RELAY	DS2000 only (0=None, 1=Door, 2=Page) [No]
	PAGE ZONE DS2000 only (1=External paging-zone 1 and All Call, 2-7= Internal zones 2-70) [1]
DOOR1 RELAY	DS1000 only (0=Not assigned, 1=Analog Door Box relay control, 2=Page zone control) [0]
	PAGE ZONE DS1000 only (1=External paging-zone 1 and All Call, 2-7= Internal zones 2-70) [1]
DOOR2 RELAY	DS1000 only (0=Not assigned, 1=Analog Door Box relay control, 2=Page zone control) [0]
	PAGE ZONE DS1000 only (1=External paging-zone 1 and All Call, 2-7= Internal zones 2-70) [1]
Press this:	To do this:
HOLD	Enter (accept) data you entered.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0200 - Tenant Options

0202 - Ring Over External Page Options

Description



DS1000/2000

The *Page Ring Volume* option requires software version 03.20.07 or higher.

Use **0202 - Ring Over External Page Options** to set the options for ringing over Paging.

Conditions

None

Table 19: Program 0202 - Ring Over External Page Options

Option	Description	Entries	Default
Background Music Over External Page	Enable this option to have Background Music (if installed) play over the system's External Paging zone. Disable this option if you don't want Background Music to play over the system's External Paging zone. See <i>Paging</i> on page 409 for more.	BGM OVER PAGE Y = Enable N = Disable	N
Door Chime Over External Page	Use this option to enable Door Box chimes over External paging. <ul style="list-style-type: none">See <i>Paging</i> on page 409 for more.	DOORCHIME OVER PG Y = Enable N = Disable	N
Page Ring Volume (Software version 03.20.07 or higher)	Use this option to adjust the volume of ringing over the External Paging system. This option does not affect Background Music or Door Chime volume. <ul style="list-style-type: none">See <i>Paging</i> on page 409 for more.	PG RING VOL 4 (H) = High 5 (L) = Low 6 (M) = Medium	4 (Medium)
External Page Ring Source	Use this option to assign trunk ringing as the ring source for the External Paging zone. <ul style="list-style-type: none">See <i>Paging</i> on page 409 for more.	PG RING SRC 3 (E) = Extension 6 (N) = None 8 (T) = Trunk	None
Extension	If External Page Ring Source is set to E (Extension), use this option to select the extension that will ring over the system's External Paging zone. <ul style="list-style-type: none">See <i>Paging</i> on page 409 for more.	EXT 300-333 in DS1000, 300-427 in DS2000	Not assigned

0200 - Tenant Options

0202 - Ring Over External Page Options

Telephone Programming Instructions

0202 - Ring Over External Page Options (Entry Range) [Default Setting]	
ICM + #*#* + Password (372000) + HOLD + 0202 + HOLD.	
BGM OVER PAGE	(9=Yes, 6=No) [No]
DOORCHIME OVER PG	(9=Yes, 6=No) [No]
PG RING VOL	(4=High, 5=Low, 6=Medium) [6]
PG RING SRC	(3=Extension, CLEAR or 6=None, 8=Trunk) [6]
EXT	(For option 3 above, enter extension number) [No entry]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0200 - Tenant Options

0203 - UNA Ringing Over External Page

Description



DS1000/2000 Available.

When **0202-Page Ring Source** is set to trunk (8), use **0203 - UNA Ringing Over External Page** option to select the type of ringing that will broadcast over the External Paging speakers.

Conditions

None

Table 20: Program 0203 - UNA Ringing Over External Page

Option	Description	Entries	Default
Trunk Port	Use this option to select the trunk you want to program. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	TRUNK PORT 1-6 in DS1000, 1-64 in DS2000	N/A
UNA Ringing Option	For the selected trunk, use this option to select the UNA ringing option. <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	RING DISABLED (Default display) 0 = None 1 = Ring Always 2=Ring at Night Only 3=Delay Ring	0 (None)

Telephone Programming Instructions

0203 - UNA Ringing Over External Page (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 0203 + HOLD.	
TRUNK PORT?	Select the trunk you want to program
RING DISABLED	Enter ringing options (0=Ring disabled, 1=Ring Always, 2=Ring Night Only, 3=Delay Ring)
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0300 - System Options

0301 - System Options (Part 1)

Description



DS1000/2000

The *SMDR Language* option requires software version 03.10.08 or higher.

Use **Program 0301- System Options** to set up various options system-wide options.

Conditions

None

Table 21: Program 0301 - System Options

Option	Description	Entries	Default
Number of Operators	Use this option to set the number of operators (attendants) in the system. The system can have up to four operators. <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. 	NUM OF OPERATORS? 1-4 CLEAR = Undefine all operators	01
Operator 1 Extension	Use this option to assign the 1st operator's extension number. <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. 	OPERATOR 1 EXT? Enter any valid extension number	300
Operator 2 Extension	Use this option to assign the 2nd operator's extension number. Before assigning this option, be sure you have entered the correct number in the <i>Number of Operators</i> option. <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. 	OPERATOR 2 EXT? Enter any valid extension number	Undefined
Operator 3 Extension	Use this option to assign the 3rd operator's extension number. Before assigning this option, be sure you have entered the correct number in the <i>Number of Operators</i> option. <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. 	OPERATOR 3 EXT? Enter any valid extension number	Undefined
Operator 4 Extension	Use this option to assign the 4th operator's extension number. Before assigning this option, be sure you have entered the correct number in the <i>Number of Operators</i> option. <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. 	OPERATOR 4 EXT? Enter any valid extension number	Undefined
Number of Digits in a System Speed Dial Code	Use the option to assign the number of digits the system uses to designate System Speed Dial bins (2, 3 or 4). With 2-digit bins, the system has 10 bins numbered 20-29. With 3-digit bins, the system has 100 bins numbered 200-299. With 4-digit bins, the system as 1000 bins numbered 2000-2999. <ul style="list-style-type: none"> See <i>Speed Dial</i> on page 481 for more. 	SYS SPDL CODE DGTS? 2 = 2-digit (20-29) 3 = 3-digit (200-299) 4 = 4-digit (2000-2999)	3

0300 - System Options

0301 - System Options (Part 1)

Table 21: Program 0301 - System Options

Option	Description	Entries	Default
A-Law Companding	Use this option to enable or disable A-Law Companding. Only enable this option when using E1 Trunks in a service area that requires A-Law Companding. <i>Disable this option when the system is installed in North America.</i> <ul style="list-style-type: none"> See <i>T1 Trunking</i> on page 530 for more. 	A-LAW COMPANDING? Y (Yes) N (No)	N
CPU Baud Rate	Use this option to set the speed of the LCCPU PCB RS-232-C port. You may want to connect a PC or SMDR printer to this port. <ul style="list-style-type: none"> See <i>Connecting a PC or Printer</i> on page 615 for more. See <i>Station Message Detail Recording</i> on page 498 for more. 	BAUD RATE? 1 = 2400 2 = 4800 3 = 9600 4 = 19,200 5 = 38,400	4 (19,200)
Fixed Baud Rate	Use this option to control the ability of a PC or laptop to change the baud rate of the system's RS-232C serial port. If disabled (N), a Ctrl-Break at the connected PC or laptop will toggle to the next available baud rate. If enabled (Y), a Ctrl-Break at the connected PC or laptop will have no effect. <ul style="list-style-type: none"> See <i>Station Message Detail Recording</i> on page 498 for more. 	FIXED BAUD RATE? Y (Yes) N (No)	Yes

0300 - System Options

0301 - System Options (Part 1)

Table 21: Program 0301 - System Options

Option	Description	Entries	Default
Modem Installed	<p>Enable this option when an external modem is connected to the system. If enabled, the system outputs diagnostics, SMDR, and call history only while the modem is on line.</p> <p>This option also enables the modem initialization string that is set up in the PC Program <i>Programming: System: Setup</i> screen. The system outputs this string from the serial port when:</p> <ul style="list-style-type: none"> • The system is powered up or reset (while the modem is connected). • The string is changed in the PC Program (while the modem is connected). The system sends the init string after the PC Program session ends. • If the PC Program user (while the modem is connected) clicks the <i>Break</i> button. • The modem is plugged into the serial port and powered up. • The <i>0301 - CPU Baud Rate</i> or <i>0301 - Modem Installed</i> options are changed. <p>Note: If the system is remotely initialized via the PC Program (which resets this option to No), the remote modem will continue to function provided it was properly set up prior to the initialization.</p>	<p>MODEM INSTALLED? Y (Yes) N (No)</p>	No
SMDR Port	<p>Use this option to specify the port the system uses for SMDR.</p> <ul style="list-style-type: none"> • See <i>Connecting a PC or Printer</i> on page 615 for more. • See <i>Station Message Detail Recording</i> on page 498 for more. 	<p>SMDR PORT? 0 = NONE 1 = CPU Serial Port</p>	0
Print SMDR Header	<p>Use this option to include or exclude the header from the SMDR report. In enabled, the header will print at the beginning of the SMDR report and at the top of each page.</p> <ul style="list-style-type: none"> • See <i>Connecting a PC or Printer</i> on page 615 for more. • See <i>Station Message Detail Recording</i> on page 498 for more. 	<p>PRINT SMDR HEADR? Y = Enable header N = Disable header</p>	Yes
SMDR Language (Software version 03.10.08 or higher)	<p>Use this option to set the language of the SMDR header and the data in the SMDR Call Type (T) field.</p> <ul style="list-style-type: none"> • See <i>Language Selection</i> on page 348 for more. 	<p>SMDR Language? 0 = English 1 = Spanish</p>	0 (English)

0300 - System Options

0301 - System Options (Part 1)

Telephone Programming Instructions

0301 - System Options (Part 1)	
ICM + ### + Password (372000) + HOLD + 0301 + HOLD .	
OPERATOR OPTIONS	
NUM OR OPERATORS	(1-4) [1]
OPERATOR 1:EXT	(Any valid extension number) [300]
OPERATOR 2:EXT	(Any valid extension number) [Undefined]
OPERATOR 3:EXT	(Any valid extension number) [Undefined]
OPERATOR 4:EXT	(Any valid extension number) [Undefined]
SYS SPDL CODE DGTS	(2-4) [3]
A- LAW COMPANDING	(9=Yes, 6=No) [No]
BAUD RATE	(1=2400, 2=4800, 3=9600, 4=19,200, 5=38,400) [4]
FIXED BAUD RATE	(9=Yes, 6=No) [Yes]
MODEM INSTALLED	(9=Yes, 6=No) [No]
SMDR PORT	(0=None, 1=CPU) [0]
PRINT SMDR HEADR	(9=Yes, 6=No) [No]
SMDR LANGUAGE	(0=English, 1=Spanish) [0]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0300 - System Options

0302 - System Identification

Description



DS1000/2000 Available.

Use **Program 0302- System Identification** enter information about the system and to set the Time and Date. This information is used in various system reports.

Conditions

None

Table 22: Program 0302 - System Identification Options

Option	Description	Entries	Default
Company Name	Use this option to enter your company's name. The name prints in system reports. <ul style="list-style-type: none"> See <i>System Identification</i> on page 506 for more. 	NAME? 15 characters max (For instructions on entering names, see <i>Keys for Entering Names</i> on page 615.)	No entry
Company Phone Number	This option is not used. <ul style="list-style-type: none"> See <i>System Identification</i> on page 506 for more. 	PHONE? 14 digits max, using: 0-9, # and * MIC = Pause (displays as P) FLASH = Flash (displays as F) DND = Wait (displays as W)	No entry
System Type	This option displays your system's type. It shows DS-2000. You cannot edit this option. <ul style="list-style-type: none"> See <i>System Identification</i> on page 506 for more. 	SYSTYP: Automatically displayed.	DS-2000 or DS1000
Software Version	This option displays your system's software level. It is for viewing only. You cannot edit this option. <ul style="list-style-type: none"> See <i>System Identification</i> on page 506 for more. 	S/W VER: Automatically displayed.	Depends on software level
Time	Use this option to set the system time. Enter data using the 24-hour format HH:MM:SS. For example, 13:00:00 = 1:00 PM. <ul style="list-style-type: none"> See <i>Time and Date</i> on page 546 for more. 	TIME? HH:MM:SS HH = Hours (0-23) MM = Minutes (0-59) SS = Seconds (0-59) Enter in 24-hour format	Current time

0300 - System Options

0302 - System Identification

Table 22: Program 0302 - System Identification Options

Option	Description	Entries	Default
Date	Use this option to enter the system Time and Date. The system shows Time and Date on telephone displays and in various system reports. <ul style="list-style-type: none"> See <i>Time and Date</i> on page 546 for more. 	DATE? MM-DD-YY MM = Month (1-12) DD = Day (1-31) YYYY = Year (e.g., 2000)	Current date
Daylight Savings Time Adjustment	Use this option to enable (Y) or disable (N) automatic Daylight Savings Time adjustment. If enabled (Y), the system will automatically set the time back 1 hour at 2:00 AM on the last Sunday in October <i>and</i> set the time forward 1 hour at 2:00 AM on the first Sunday in April. If disabled (N), this adjustment will not occur. <ul style="list-style-type: none"> See <i>Time and Date</i> on page 546 for more. 	AUTO D.S.TIME? Y (Yes) N (No)	Yes
Time and Date Format	Use this option to change the format of a display keyset's Time and Date display. See the chart below for available entries. After changing the entry for this option, an extension user must either lift and replace the handset or receive an incoming call before their display will show the new format. <ul style="list-style-type: none"> See <i>Time and Date</i> on page 546 for more. 	TIME/DATE FORMAT? See chart below for available entries	2

0302-Time and Date Options (Using Tuesday, 4/8/2003, 4:44PM as an Example)	
Option	Display Format
0	8 APR TUE 4:44PM
1	4:44PM APR 8 TUE
2 (Default)	4-8 TUE 4:44PM
3	4:44PM TUE 8 APR
4	8 APR TUE 16:44
5	16:44 APR 8 TUE
6	4-8 TUE 16:44
7	16:44 TUE 8 APR

0300 - System Options

0302 - System Identification

Telephone Programming Instructions

0302 - System Identification (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 0302 + HOLD.	
NAME	(15 characters max) [No entry] For instructions on entering names, see <i>Keys for Entering Names</i> on page 615.
PHONE	(14 digits max, using 0-9, # and *) [No entry] When entering data, MIC=Pause (P), FLASH=Flash (F), DND=Wait (W).
SYS TYP:	[Automatically displayed]
S/W VER:	[Automatically displayed]
TIME	(HH:MM:SS) [12:00:00] When entering data, HH=Hours (0-23), MM=Minutes (0-59), SS=Seconds (0-59)
DATE	(MM-DD-YYYY) [01/01/2004] When entering data, MM=Month (1-12), DD=Day (1-31), YYYY=Year (e.g., 2004)
AUTO D.S.TIME	(9=Yes, 6=No) [Yes]
TIME/DATE FORMAT	(0-7) [2]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0400 - Timers

0401 - System Timers

Description



DS1000/2000 Available.

Use **Program 0401- System Timers** to enter the values for system-wide timers.

Conditions

None

Table 23: Program 0401 - System Timers

Option	Description	Entries	Default
Park Orbit	Use this timer to set how long a call stays in System Park Orbit before it recalls the extension that parked it. This timer is for orbits 60-67 only. The recall for orbits 68 and 69 is fixed at 5 minutes. <ul style="list-style-type: none">• See <i>Park</i> on page 420 for more.	PARK RECALL? 1-9999 sec. 0 = Disabled	60 sec.
Modem Reserve	This option is not used.	MODEM RESERVE? 1-9999 sec. 0 = Disabled	30 sec.
Transfer Recall	Use this timer to set how long a transferred call rings an idle destination extension or Ring Group before recalling the extension from which it was initially transferred. In addition, use this timer to set how long a transferred call rings a busy operator extension before recalling the extension from which it was initially transferred. <ul style="list-style-type: none">• See <i>Transfer</i> on page 558 for more.	TRANSFER RECALL? 1-9999 sec. 0 = Disabled	20 seconds
Intercom Inter-digit	When an extension user places a call, they must dial each succeeding digit within this interval. The system also uses this interval for an extension going into the talk state, which affects the Modem Cut-Through timing. Setting this timer too short or too long could affect DTMF receiver usage and create blocking. Normally, you should leave this timer at its default value (6 seconds). Some applications may require that it be shortened, but it is recommended that it not be lengthened. <ul style="list-style-type: none">• See <i>Intercom</i> on page 339 for more.• See <i>Modem Cut-Through</i> on page 376 for more.	ICM INTERDIGIT? 1-9999 sec. 0 = Disabled	6 sec.

Table 23: Program 0401 - System Timers

Option	Description	Entries	Default
Meet-Me Conference	<p>When a user initiates a Meet-Me Conference, the system waits this interval for the Paged party to join the call.</p> <ul style="list-style-type: none"> • See <i>Meet-Me Conference</i> on page 365 for more. 	<p>MEET ME CONF? 1-9999 sec. 0 = Disabled</p>	30 sec.
Dialing Pause	<p>For Speed Dial, the system waits this interval when it encounters a pause in a Speed Dial bin.</p> <ul style="list-style-type: none"> • See <i>Speed Dial</i> on page 481 for more. 	<p>DIALING PAUSE? 1-9999 sec. 0 = Disabled</p>	1 sec.
Page Duration	<p>Use this timer to set the maximum length of Page announcements.</p> <ul style="list-style-type: none"> • See <i>Paging</i> on page 409 for more. 	<p>PAGE DURATION? 1-9999 sec. 0 = Disabled</p>	30 sec.
Door Unlock	<p>This timer sets the interval that the CPRU PCB relay remains closed after a keyset user activates (closes) the relay. After this interval, the CPRU relay automatically returns to its open (idle) state.</p> <ul style="list-style-type: none"> • See <i>Door Box</i> on page 226 for more. 	<p>DOOR UNLOCK? 1-9999 sec. 0 = Disabled</p>	30 sec.
DIL No Answer	<p>This timer sets how long a DIL to an extension rings an idle extension before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Line</i> on page 170 for more. <p>This timer also sets the interval after which DID Trunk Overflow and DID Station Intercept occur.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Dialing</i> on page 155 for more. 	<p>DIL NO ANSWER? 1-9999 sec. 0 = Disabled</p>	15 sec.

0400 - Timers

0401 - System Timers

Table 23: Program 0401 - System Timers

Option	Description	Entries	Default
Trunk Revert	<p>This timer sets how long Hold Recall rings the extension that placed the call on hold before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line.</p> <ul style="list-style-type: none"> • See <i>Hold</i> on page 296 for more. • See <i>Key Ring</i> on page 344 for more. <p>This timer also sets how long a DIL to a Ring Group master number rings an idle extension before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Line</i> on page 170 for more. <p>In addition, this timer sets how long a Transfer Recall rings the extension that initially transferred the call before Key Ring occurs.</p> <ul style="list-style-type: none"> • See <i>Transfer</i> on page 558 for more. 	<p>TRUNK REVERT? 1-9999 sec. 0 = Disabled</p>	15 sec.
Trunk Delay Ring	<p>Use this timer to set how long the system waits before ringing an extension that has the Delayed Ringing option enabled. This timer also sets the delay interval for delay ring trunks ringing the External Paging system.</p> <ul style="list-style-type: none"> • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Delayed Ringing</i> on page 149 for more. • See <i>Paging</i> on page 409 for more. 	<p>TRK DELAY RING? 1-9999 sec. 0 = Disabled</p>	10 sec.
Trunk Overflow	<ul style="list-style-type: none"> • Not used. 	<p>TRUNK OVERFLOW? 1-9999 sec. 0 = Disabled</p>	20 sec.
Centrex Type Feature Key Delay	<p>This timer sets how long the system waits when it finds a Centrex delay (i.e., D) programmed in a Centrex Feature Key.</p> <ul style="list-style-type: none"> • See <i>PBX/Centrex Compatibility</i> on page 426 for more. 	<p>CENTRX FTR DLY? 1-9999 sec. 0 = Disabled</p>	50 sec.
ACD/UCD Overflow	<p>This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the UCD Overflow destination.</p> <ul style="list-style-type: none"> • See <i>Extension Hunting</i> on page 239 for more. 	<p>ACD/UCD OVRFLOW? 1-9999 sec. 0 = Disabled</p>	60 sec

0400 - Timers

0401 - System Timers

Table 23: Program 0401 - System Timers

Option	Description	Entries	Default
Number of Password Attempts	<p>Use this option to set how many times the system allows a user to enter the incorrect programming password before locking them out.</p> <ul style="list-style-type: none"> See <i>System Programming List</i> on page 511 for more. 	PSWD ATTEMP NUM? 1-9999	3
Program Lockout Time	Not used.	PROGRAM LOCKOUT? 1-9999 sec. 0 = Disabled	30 sec.
Force Program Exit	<p>If a telephone in the programming mode is inactive longer than this interval, the system automatically cancels the programming mode and makes the telephone idle.</p> <ul style="list-style-type: none"> See <i>System Programming List</i> on page 511 for more. 	FORCE PROG EXIT? 1-9999 sec. (30 seconds minimum)	120 sec.
Auto Redial Retry Timer	<p>Use this option to set the interval between Auto Redial callout attempts.</p> <ul style="list-style-type: none"> See <i>Auto Redial</i> on page 42 for more. 	AUTO REDIAL RETRY 1-99 sec.	30 sec.
Auto Redial Busy Timer	<p>This option sets how long the system waits for busy tone when processing an Auto Redial callout attempt. The interval is measured from the last digit dialed to the receipt of busy tone. If the system doesn't receive busy tone within this interval, it assumes that the call went through and cancels Auto Redial.</p> <ul style="list-style-type: none"> See <i>Auto Redial</i> on page 42 for more. 	AUTO REDIAL BUSY 1-99 sec.	6 sec.

0400 - Timers

0401 - System Timers

Telephone Programming Instructions

0401 - System Timers (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 0401 + HOLD.	
PARK RECALL	(1-9999 Sec, 0=disabled) [60]
MODEM RESERVE	(1-9999 Sec, 0=disabled) [30]
TRANSFER RECALL	(1-9999 Sec, 0=disabled) [20]
ICM INTERDIGIT	(1-9999 Sec) [6]
MEET-ME CONF	(1-9999 Sec, 0=disabled) [30]
DIALING PAUSE	(1-9999 Sec, 0=disabled) [1]
PAGE DURATION	(1-9999 Sec, 0=disabled) [30]
DOOR UNLOCK	(1-9999 Sec, 0=disabled) [30]
DIL NO ANSWER	(1-9999 Sec, 0=disabled) [15]
TRUNK REVERT	(1-9999 Sec, 0=disabled) [15]
TRK DELAY RING	(1-9999 Sec, 0=disabled) [10]
TRUNK OVERFLOW	(1-9999 Sec, 0=disabled) [20]
CENTRX FTR DLY	(1-9999 Sec, 0=disabled) [50]
ACD/UCD OVERFLOW	(1-9999 Sec, 0=disabled) [60]
PSWD ATTEMP NUM	(1-9999) [3]
PROGRAM LOCKOUT	(30-9999 Sec) [30] (This option is not used.)
FORCE PROG EXIT	(30-9999 Sec) [120]
AUTO REDIAL RETRY	(1-99 Sec) [30]
AUTO REDIAL BUSY	(1-99 Sec) [6]
Press this:	To do this:
HOLD	Enter (accept) data you entered.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

Description



DS1000/2000 Available.

Use **Program 0402- Trunk Timers** to enter the values for trunk timers.

Conditions

None

Table 24: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Camp-On	<ul style="list-style-type: none"> Not used. 	CAMP ON? 0-9999 sec.	60 sec.
Line Response	<p>When the system fails to detect loop current on a trunk, it will wait this interval before marking the trunk as defective.</p> <p>Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may mark properly functioning trunks as defective. If too long, defective trunks may be left in service.</p> <ul style="list-style-type: none"> See <i>System Timers, Trunks</i> on page 524 for more. 	LINE RESPONSE? 4-1020 in 100 mS increments (e.g., 4 = 400 mS, 10 - 1000 mS)	100 (10 seconds)
Dial Tone Detect	<p>When the system seizes a line to place a Speed Dial call, it waits this interval for dial tone before outdialing the call. The system requires that the first dial tone be at least 5 seconds long and the second dial tone to be at least 2.5 seconds long.</p> <p>Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may not seize properly functioning trunks. If too long, there will be too long a delay before the system skips over a defective trunk.</p> <ul style="list-style-type: none"> See <i>Speed Dial</i> on page 481 for more. See <i>System Timers, Trunks</i> on page 524 for more. 	DL TONE DETECT? 0-9999 in 100 mS increments (e.g., 10 = 1 second, 100 = 10 seconds)	10 (1 second)

0400 - Timers

0402 - Trunk Timers

Table 24: Program 0402 - Trunk Timers

Option	Description	Entries	Default
PBX/Centrex Flash	<p>Use this timer to set the Flash interval. When a user flashes a trunk (manually or in a Speed Dial number), the system opens the trunk circuit for this interval. For accurate flash function, be sure to set this interval for compatibility with the connected telco or PBX/Centrex.</p> <p>If you set this interval too short, the telco may not always register the flash. If too long, inadvertent disconnects may occur.</p> <ul style="list-style-type: none">• See <i>Flash</i> on page 264 for more.• See <i>Modem Cut-Through</i> on page 376 for more.• See <i>PBX/Centrex Compatibility</i> on page 426 for more.• See <i>Speed Dial</i> on page 481 for more.• See <i>System Timers, Trunks</i> on page 524 for more.	FLASH PBX? 16-4080 mS	800 mS
Flash Disconnect	Not used.	FLASH DISC.? 16-4080 mS	2496mS
Force Idle (Trunk Guard Time)	<p>Use this timer to set the guard time for trunks. When the system disconnects a trunk (e.g., after a user hang up), the system keeps the line idle until this timer expires. The Trunk Guard Time helps prevent call collisions.</p> <p>If you set this interval too short, call collisions may occur. If too long, there will be unnecessary delays before you can use the trunk for a new call.</p> <ul style="list-style-type: none">• See <i>System Timers, Trunks</i> on page 524 for more.	FORCE IDLE? 10-9999 in 100 mS increments (e.g., 10 = 1 second)	10 (1 sec)
PBX Pause	Not used.	PBX PAUSE? 0-9999 sec. 0 = No pause	0

Table 24: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Minimum Ring Detection Timer	<p>Use this timer to set the threshold for ring detection. If the ring signal is longer than this interval, the system interprets the signal as valid ringing. If the signal is equal to or shorter than this interval, the system ignores the ringing.</p> <p>Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may detect line spikes and anomalies as ringing. If too long, the system may not properly interpret a valid ringing signal.</p> <ul style="list-style-type: none"> • See <i>System Timers, Trunks</i> on page 524 for more. 	MIN RING DET? 8-2040 mS	104 mS
DP Make Timer	<p>Use this timer to set the duration of the Dial Pulse Make signal (i.e., relay closed). This is the “on” time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> • See <i>System Timers, Trunks</i> on page 524 for more. 	PULSE DIAL MAKE? 4-1020 mS	40 mS
DP Break Timer	<p>Use this timer to set the duration of the Dial Pulse Break signal (i.e., relay open). This is the “off” time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> • See <i>System Timers, Trunks</i> on page 524 for more. 	PULSE DIAL BRK? 4-1020 mS	60 mS
DP Interdigit Timer	<p>Use this timer to set the duration of the Dial Pulse Interdigit signal (i.e., relay open time <i>between</i> each digit). Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> • See <i>System Timers, Trunks</i> on page 524 for more. 	PULSE INTRDIGIT? 100-9999 mS	800 mS

0400 - Timers

0402 - Trunk Timers

Table 24: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Manual DTMF Tone On	<p>This timer sets the duration of DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down.</p> <ul style="list-style-type: none">• See <i>System Timers, Trunks</i> on page 524 for more.	MAN DTMF ON? 10-2550 mS	150 mS
Manual DTMF Tone Off	<p>This timer sets the duration of the interval between DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Note that this is the minimum DTMF Tone off time guaranteed by the system.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, outbound dialing is unnecessarily slowed down.</p> <ul style="list-style-type: none">• See <i>System Timers, Trunks</i> on page 524 for more.	MAN DTMF OFF? 10-2550 mS	100 mS
Speed Dial DTMF Tone On	<p>This timer sets the duration of DTMF digits for Speed Dial trunk calls automatically dialed by the system.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down.</p> <ul style="list-style-type: none">• See <i>Speed Dial</i> on page 481 for more.• See <i>System Timers, Trunks</i> on page 524 for more.	SPDL DTMF ON? 10-2550 mS	100 mS

Table 24: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Speed Dial DTMF Tone Off	<p>This timer sets the duration the quiet time between DTMF digits for Speed Dial trunk calls automatically dialed by the system.</p> <p>Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, outbound dialing is unnecessarily slowed down.</p> <ul style="list-style-type: none"> • See <i>Speed Dial</i> on page 481 for more. • See <i>System Timers, Trunks</i> on page 524 for more. 	SPDL DTMF ON? 10-2550 mS	100 mS
Loop Current Detection Time	<p>For loop start trunks, loop current must be present for this interval before the system seizes the trunk.</p> <p>Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently seize unstable trunks. If too long, the system may not properly seize a valid trunk.</p> <ul style="list-style-type: none"> • See <i>System Timers, Trunks</i> on page 524 for more. 	LOOP CURRENT? 4-1020 mS	800 mS
Far End Disconnect	<p>Use this timer to set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk trunk to idle.</p> <p>Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently disconnect valid trunks. If too long, the system may leave trunks connected that it should tear down.</p> <ul style="list-style-type: none"> • See <i>System Timers, Trunks</i> on page 524 for more. 	FAR END DISC.? 4-1020 mS	300 mS
Minimum Single Ring Detection Timer	<p>The system uses this timer to detect valid ringing signal from the connected telco or PBX. Valid single ring must be longer than this interval.</p> <ul style="list-style-type: none"> • See <i>System Timers, Trunks</i> on page 524 for more. 	SNGL RG MIN DET? 8-2040 mS	1216 mS

0400 - Timers

0402 - Trunk Timers

Table 24: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Minimum Double Ring Detection Off Timer	The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be longer than this interval. <ul style="list-style-type: none">• See <i>System Timers, Trunks</i> on page 524 for more.	DBL RG MIN OFF? 8-2040 mS	288 mS
Maximum Double Ring Detection Off Timer	The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be less than this interval. <ul style="list-style-type: none">• See <i>System Timers, Trunks</i> on page 524 for more.	DBL RG MAX OFF? 8-2040 mS	576 mS
Ring Signal End Detect Timer	If the ringing signal on a trunk call is interrupted for longer than this interval, the system assumes ringing has stopped and terminates the call. Set this option for compatibility with the connected telco or PBX Centrex. If this interval is set to short, valid ringing will be inadvertently cut off. If too long, the system will leave the call set up even after ringing has stopped. <ul style="list-style-type: none">• See <i>System Timers, Trunks</i> on page 524 for more.	RING STOP DET? 64-16320 mS	6016 mS
Caller ID Detection Timer	With DSP-based Caller ID, the Caller ID Detection Timer is the amount of time between the first and second ring bursts that the system can detect Caller ID digits. If this timer is set too long, the outside caller will hear ringing followed by reorder tone. If set too short, all the Caller ID digits may not be detected. This timer is not used with DS2000 daughter board-based Caller ID. <ul style="list-style-type: none">• See <i>Caller ID</i> on page 95 for more.• See <i>System Timers, Trunks</i> on page 524 for more.	CID DETECT 64-16320 mS	2944 mS
Ground Start Timer	Not used.	GROUNDING 16-4080 mS	800 mS
Pause Timer	Not used.	PAUSE 64-16320 mS	3008 mS
DP Mute Timer	Not used.	DP MUTE 4-1020 mS	8 mS

Table 24: Program 0402 - Trunk Timers

Option	Description	Entries	Default
P.F. Recovery Detect Timer	<p>When the ATRU PCB recovers from a power failure, it checks the power failure trunk (trunk 1) for loop current for the P.F. Recovery Detect interval. If loop current is detected, it assumes the Power Failure Telephone is still connected and does not tear down the call. If loop current is not detected, the ATRU PCB switches the trunk out of the power failure mode.</p> <ul style="list-style-type: none">• See <i>System Timers, Trunks</i> on page 524 for more.	PF RECOVERY 64-16320 mS	3008 mS

0400 - Timers

0402 - Trunk Timers

Telephone Programming Instructions

0402 - TRUNK Timers (Entry Range) [Default Setting]		
ICM + ### + Password (372000) + HOLD + 0402 + HOLD.		
	CAMP-ON	(0-9999 Sec, 0=Disabled) [60]
	LINE RESPONSE	(4-1020 in 100mS increments) [100 (10 seconds)]
	DL TONE DETECT	(0-9999 in 100 mS increments) [10 (1 second)]
	FLASH PBX	(16-4080 mS) [800 mS]
	FLASH DISC.	(16-4080 mS) [2496 mS]
	FORCE IDLE	(10-9999 in 100 mS increments) [10 (1 second)]
	PBX PAUSE	(0-9999 Sec, 0=Disabled) [0]
	MIN RING DET	(8-2040 mS) [104]
	PULSE DIAL MAKE	(4-1020 mS) [40]
	PULSE DIAL BRK	(4-1020 mS) [60]
	PULSE INTRDIGIT	(100-9999 mS) [800]
	MAN DTMF ON	(10-2550 mS) [150]
	MAN DTMF OFF	(10-2550 mS) [100]
	SPDL DTMF ON	(10-2550 mS) [100]
	SPDL DTMF OFF	(10-2550 mS) [100]
	LOOP CURRENT	(4-1020 mS) [800]
	FAR END DISC.	(4-1020 mS) [300]
	SING RG MIN DET	(8-2040 mS) [1216]
	DBL RG MIN OFF	(8-2040 mS) [288]
	DBL RG MAX OFF	(8-2040 mS) [576]
	RING STOP DET	(64-16320 mS) [6016]
	CID DETECT	(64-16320 mS) [2944]
	GROUNDING	(16-4080 mS) [800 mS]
	PAUSE	(64-16320 mS) [3008]
	DP MUTE	(4-1020 mS) [8]
	PF RECOVERY	(64-16320 mS) [3008]
Press this:	To do this:	
HOLD	Enter (accept) data you entered.	
CONF	Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.	
LND	Erase the entry to the left of the cursor.	
CHECK	Restore the previous entry.	
CLEAR	Clear the entry from the display (unless otherwise noted).	

Description



DS1000/2000 Available.

Use **Program 0403- Station Timers** to enter the values for station timers.

Conditions

None

Table 25: Program 0403 - Station Timers

Option	Description	Entries	Default
Hold Recall	Use this timer to set how long a call stays on Hold before it recalls the extension that initially placed it on Hold. <ul style="list-style-type: none"> See <i>Hold</i> on page 296 for more. 	HOLD RECALL? 1-9999 sec. 0 = Disabled	60 sec.
Exclusive Hold Recall	Use this timer to set how long a call stays on Exclusive Hold before it recalls the extension that initially placed it on Exclusive Hold. <ul style="list-style-type: none"> See <i>Hold</i> on page 296 for more. 	EX-HOLD RECALL? 1-9999 sec. 0 = Disabled	90 sec.
Camp-On	<ul style="list-style-type: none"> Not used. 	CAMP_ON? 1-9999 sec. 0 = Disabled	60 sec.
Call Forward Ring No Answer	When Call Forwarding Ring No Answer is enabled, this timer sets how long a forwarded call rings an unanswered extension before routing to the forwarding destination. In addition, use this timer to set how long a transferred call rings a busy non-operator extension before recalling the extension from which it was initially transferred. This timer also sets how long a call will ring an idle UCD Hunting group member before cycling to the next member of the group. <ul style="list-style-type: none"> See <i>Call Forwarding</i> on page 63 for more. See <i>Extension Hunting</i> on page 239 for more. 	FWRD NO ANSWER? 1-9999 sec. 0 = Disabled	10 sec.
Call Waiting Tone Interval	Use this timer to set the interval between Call Waiting tones. <ul style="list-style-type: none"> See <i>Call Waiting / Camp-On</i> on page 88 for more. <p>Also use this timer to set the interval between Off Hook Signaling alert tones.</p> <ul style="list-style-type: none"> See <i>Off-Hook Signaling</i> on page 394 for more. 	CL WAIT INTERVL? 1-9999 sec. 0 = Disabled	10 sec.

0400 - Timers

0403 - Station Timers

Table 25: Program 0403 - Station Timers

Option	Description	Entries	Default
Call Coverage Delay	For extensions with Delayed Ringing Call Coverage keys, this timer sets how long a call flashes the key at an extension before it starts to ring. <ul style="list-style-type: none"> See <i>Call Coverage Keys</i> on page 59 for more. 	CL CVR DLY RING? 1-9999 sec. 0 = Disabled	10 sec.
Hook Flash Transfer	<ul style="list-style-type: none"> Not used. 	HOOK FLASH XFER? 1-9999 sec. 0 = Disabled	2 sec.
Hook Flash Disconnect	<ul style="list-style-type: none"> Not used. 	FLSH DISCONNECT? 1-9999 sec. 0 = Disabled	12 sec.
Number of Extended Rings	If an extension's Class of Service enables Extended Ringing, use the timer to set the duration of the Extended Ringing. <ul style="list-style-type: none"> See <i>Extended Ringing</i> on page 237 for more. 	EXTENDED RING? 1-9999 sec. 0 = Disabled	20 sec.
Drop Pulse Send	Use this timer to set the duration of the ASTU PCB drop pulse. This pulse is sent to the connected analog device to initiate a disconnect. <ul style="list-style-type: none"> See <i>Off-Premise Extensions / On-Premise SLT Extensions</i> on page 399 for more. 	DROP PULSE SEND? 1-9999 mS 0 = Disabled	300 mS
DTMF Detect	Use this timer to set the DTMF detection threshold for single line (analog device) ports. If the analog device sends a DTMF signal longer than this interval, the system recognizes it as a valid DTMF tone and decodes it. If the DTMF signal is equal to or less than this interval, the system ignores it. <ul style="list-style-type: none"> See <i>Off-Premise Extensions / On-Premise SLT Extensions</i> on page 399 for more. 	DTMF DETECT? 1-9999 mS 0 = Disabled	70 mS
Ring No Answer Hunt	Use this timer to set the Extension Hunting Ring No Answer Time. A call will ring a hunt group member extension for this interval before automatically cycling to the next extension in the group. <ul style="list-style-type: none"> See <i>Extension Hunting</i> on page 239 for more. 	RG NO ANS HUNT? 1-9999 sec. 0 = Disabled	10 sec.

Telephone Programming Instructions

0403 - Station Timers (Entry Range) [Default Setting]	
ICM + ##* + Password (372000) + HOLD + 0403 + HOLD.	
HOLD RECALL	(1-9999 Sec, 0=Disabled) [60]
EX-HOLD RECALL	(1-9999 Sec, 0=Disabled) [90]
CAMP_ON	(1-9999 Sec, 0=Disabled) [60]
FWRD NO ANSWER	(1-9999 Sec, 0=Disabled) [10]
CL WAIT INTERVL	(1-9999 Sec, 0=Disabled) [10]
CL CVR DLY RING	(1-9999 Sec, 0=Disabled) [10]
HOOK FLASH XFER	(1-9999 Sec, 0=Disabled) [2]
FLSH DISCONNECT	(1-9999 Sec, 0=Disabled) [12]
EXTENDED RING	(1-9999 Sec, 0=Disabled) [20]
DROP PULSE SEND	(1-9999 Sec, 0=Disabled) [300]
DTMF DETECT	(1-9999 Sec, 0=Disabled) [70]
RG NO ANS HUNT	(1-9999 Sec, 0=Disabled) [10]
Press this:	To do this:
HOLD	Enter (accept) data you entered.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0400 - Timers

0404 - Analog Station Timers

Description



DS1000/2000

Available.

Use **0404: Analog Station Timers** to set parameters and timers for ASTU PCBs.

Conditions

None

Option	Description	Entries	Default
Loop Current	Use this option to set the maximum allowed loop current for the system's ASTU PCBs. Normally choose 25mA for short loops and 35mA for long loops. In general, a long loop is 3000 feet or longer and a short loop is less than 3000 feet. Do not change this entry from its default value (25mA [short loop]).	LOOP CURRENT 0 = 25mA (short loop) 1 = 35 mA (long loop)	25mA (0)
Ring Frequency	Use this option to define the AC ringing frequency for the system's ASTU PCBs. Do not change this entry from its default value (20 Hz).	RINGING FREQ? 0 = 25 Hz 1 = 20 Hz 2 = 16 Hz	20 Hz (1)
Minimum Break Time	This timer defines the minimum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.	MIN BREAK TIME? 5-1275 mS	10 mS
Maximum Break Time	This timer defines the maximum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.	MAX BREAK TIME? 5-1275 mS	100 mS
Minimum Make Time	This timer defines the minimum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.	MIN MAKE TIME? 5-1275 mS	10 mS

Option	Description	Entries	Default
Maximum Make Time	This timer defines the maximum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. <i>Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.</i>	MAX MAKE TIME? 5-1275 mS	100 mS
Minimum Hookflash Time	For ASTU PCBs, this timer defines the minimum amount of time the loop must be opened before the system starts to detect a transfer or hang up sequence. Open loop intervals shorter than the setting are ignored by the ASTU PCB.	MIN FLASH TIME? 5-1275 mS	105 mS
Maximum Hookflash Time	For ASTU PCBs, this timer defines the maximum amount of time the loop can be opened in order for the system to detect a Transfer sequence. Open loop intervals longer than the setting are interpreted as hang up.	MAX FLASH TIME? 5-1275 mS	1000 mS (1 second)
Minimum Ground Flash Time	For ground start applications with ASTU PCBs, this timer sets the amount of time a ground must be applied before the system detects a transfer sequence. The ASTU uses this timer when analog telephones use ground Transfer instead of open loop Transfer. <i>This timer is not used in North America. Do not change this timer from its default value.</i>	MIN GND TIME? 5-1275 mS	105 mS
Minimum Off-Hook Time	For ASTU PCBs, this timer defines how long a connected analog device must remain off-hook before the system recognizes the off-hook status.	MIN GND TIME? 5-1275 mS	105 mS
Off-Hook Guard Time	The ASTU PCB waits this interval after an analog device hangs up before accepting any additional input from the device. This timer helps prevent erroneous detection due to hardware stabilization.	OFF HOOK GUARD? 5-1275 mS	300 mS
Dial Pulse Guard Timer	The ASTU PCB waits this interval between dial pulse digits before attempting to detect any additional DP digits. This timer helps prevent erroneous DP dialing due to hardware stabilization.	DIAL GUARD? 5-1275 mS	350 mS
Loop Disconnect Time	When the far end disconnects, the ASTU PCB opens the loop to the connected analog device for this interval.	LOOP DISC TIME? 50-12750 mS	2000 mS (2 seconds)

0400 - Timers

0404 - Analog Station Timers

Option	Description	Entries	Default
Ring/MW Wait Period Time	This timer determines the ringing sequence for the devices connected ASTU PCBs. Because of power consumption, it is not possible to ring all analog devices on an ASTU simultaneously. Instead, the card is divided into 4 groups with two ports in each group. Ringing cycles between the 4 groups, ringing each group for this interval.	RING/MW PERIOD? 50-12750 mS	750 mS

Telephone Programming Instructions

0404 - Analog Station Timers (Entry Range) [Default Setting]	
ICM + ##* + Password (372000) + HOLD + 0404 + HOLD.	
LOOP CURRENT	(0=25mA, 1=35mA) [0]
RINGING FREQ	(0=25Hz, 1=20Hz, 2=16Hz) [0]
MIN BREAK TIME	(5-1275 mS) [10]
MAX BREAK TIME	(5-1275 mS) [100]
MIN MAKE TIME	(5-1275 mS) [10]
MAX MAKE TIME	(5-1275 mS) [100]
MIN FLASH TIME	(5-1275 mS) [105]
MAX FLASH TIME	(5-1275 mS) [1000]
MIN GND TIME	(5-1275 mS) [105]
MIN OFF-HK TIME	(5-1275 mS) [105]
OFF HOOK GUARD	(5-1275 mS) [300]
DIAL GUARD	(5-1275 mS) [350]
LOOP DISC TIME	(50-12750 mS) [2000]
RING/MW PERIOD	(50-12750 mS) [750]
Press this:	To do this:
HOLD	Enter (accept) data you entered.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

Description



DS1000	Not available.
DS2000	Available.

Use **0405 - T1/E1 Trunk Timers** to set the value of timers shared by T1 and E1 Trunks.

0405-T1/E1 Trunk Timers			
Option	Description	Entries	Default
Loop Detection Time	<p>For loop start T1 trunks, loop current must be present for this interval before the system seizes the trunk.</p> <p>Set this interval for compatibility with the T1 service provider. If you set this interval too short, the system may inadvertently seize unstable trunks. If too long, the system may not properly seize a valid trunk.</p> <ul style="list-style-type: none"> See <i>T1 Trunking</i> on page 530 for more. 	LOOP DETECT (16-4080 mS)	640 mS
Pause Time	TBD	PAUSE TIME (64-16320 mS)	3008 mS
Transmit Dial Pulse Break Time	<p>Use this timer to set the duration of the T1 circuit transmit Dial Pulse Break signal (i.e., relay open). This is the “off” time in a Dial Pulse digit.</p> <p>Set this timer for compatibility with the T1 service provider. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> See <i>T1 Trunking</i> on page 530 for more. 	TX DP BREAK (4-1020 mS)	60 mS
Transmit Dial Pulse Make Time	<p>Use this timer to set the duration of the T1 circuit transmit Dial Pulse Make signal (i.e., relay closed). This is the “on” time in a Dial Pulse digit.</p> <p>Set this timer for compatibility with the T1 service provider. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> See <i>T1 Trunking</i> on page 530 for more. 	TX DP MAKE (4-1020 mS)	40 mS
Transmit Dial Pulse Interdigit Time	<p>Use this timer to set the duration of the T1 circuit transmit Dial Pulse Interdigit signal (i.e., relay open time <i>between</i> each digit).</p> <p>Set this timer for compatibility with the T1 service provider. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> See <i>T1 Trunking</i> on page 530 for more. 	TX DP INTERDIG (16-4080 mS)	800 mS

0400 - Timers

0405 - T1/E1 Trunk Timers

0405-T1/E1 Trunk Timers			
Option	Description	Entries	Default
Receive Dial Pulse Minimum Make Time	<p>Use this timer to set the minimum required duration of the T1 circuit receive Dial Pulse Make signal (i.e., relay closed). This is the minimum “on” time in a Dial Pulse digit.</p> <p>Set this timer for compatibility with the T1 service provider. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> • See <i>T1 Trunking</i> on page 530 for more. 	RX DP MAKE MIN (4-1020 mS)	12 mS
Receive Dial Pulse Maximum Make Time	<p>Use this timer to set the maximum allowed duration of the T1 circuit receive Dial Pulse Make signal (i.e., relay closed). This is the maximum allowed “on” time in a Dial Pulse digit.</p> <p>Set this timer for compatibility with the T1 service provider. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> • See <i>T1 Trunking</i> on page 530 for more. 	RX DP MAKE MAX (4-1020 mS)	76 mS
Receive Dial Pulse Minimum Break Time	<p>Use this timer to set the minimum required duration of the T1 circuit receive Dial Pulse Break signal (i.e., relay open). This is the minimum “off” time in a Dial Pulse digit.</p> <p>Set this timer for compatibility with the T1 service provider. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <ul style="list-style-type: none"> • See <i>T1 Trunking</i> on page 530 for more. 	RX DP BRK MIN (4-1020 mS)	20 mS
Receive Dial Pulse Maximum Break Time	<p>Use this timer to set the maximum allowed duration of the T1 circuit receive Dial Pulse Break signal (i.e., relay closed). This is the maximum allowed “off” time in a Dial Pulse digit.</p> <p>Set this timer for compatibility with the T1 service provider. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.</p> <p>See <i>T1 Trunking</i> on page 530 for more.</p>	RX DP BRK MAX (4-1020 mS)	104 mS
Transmit Answer Time	TBD	TX ANSWER (8-2040 mS)	304 mS
Receive Minimum Answer Time	TBD	RX ANSWER MIN (8-2040 mS)	200 mS
Receive Maximum Answer Time	TBD	RX ANSWER MAX (8-2040 mS)	400 mS

0400 - Timers

0405 - T1/E1 Trunk Timers

0405-T1/E1 Trunk Timers			
Option	Description	Entries	Default
Receive Clear Signal Time	TBD	RX CLEAR SIGNAL (16-4080 mS)	1000 mS
Transmit Flash Time	TBD	TX FLASH TIMER (16-4080 mS)	800 mS
Receive Flash Minimum Time	TBD	RX FLASH MIN (16-4080 mS)	640 mS
Receive Flash Maximum Time	TBD	RX FLASH MAX (16-4080 mS)	1008 mS

Conditions

None

0400 - Timers

0405 - T1/E1 Trunk Timers

Telephone Programming Instructions

0405 - T1/E1 Trunk Timers (Entry Range) [Default Setting]		
ICM + ##*#* + Password (372000) + HOLD + 0405 + HOLD.		
	LOOP DETECT	(16-4080 mS) [640]
	PAUSE TIME	(64-16320 mS) [3008]
	TX DP BREAK	(4-1020 MS) [60]
	TX DP MAKE	(4-1020 mS) [40]
	TX DP INTERDIG	(16-4080 mS) [800]
	RX DP MAKE MIN	(4-1020 mS) [12]
	RX DP MAKE MAX	(4-1020 mS) [76]
	RX DP BRK MIN	(4-1020 mS) [20]
	RX DP BRK MAX	(4-1020 ms) [104]
	TX ANSWER	(8-2040 mS) [304]
	RX ANSWER MIN	(8-2040 mS) [200]
	RX ANSWER MAX	(8-2040 mS) [400]
	RX CLEAR SIGNAL	(16-4080 mS) [1000]
	TX FLASH TIMER	(16-4080) [800]
	RX FLASH MIN	(16-4080) [640]
	RX FLASH MAX	(16-4080) [1008]
Press this:	To do this:	
HOLD	Enter (accept) data you entered.	
CONF	Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.	
LND	Erase the entry to the left of the cursor.	
CHECK	Restore the previous entry.	
CLEAR	Clear the entry from the display (unless otherwise noted).	

0400 - Timers

0406 - T1 Trunk Timers

Description



DS1000	Not available.
DS2000	Available.

Use **0406 - T1 Trunk Timers** to set the value of timers unique to T1 trunks.

0406-T1 Trunk Timers			
Option	Description	Entries	Default
Minimum Ring Detection Time	TBD	MIN RING DET (8-2040 mS)	104 mS
Single Ring Minimum Detection Time	TBD	SNGL RG MIN DET (8-2040 mS)	504 mS
Double Ring Minimum Off Time	TBD	DBL RG MIN OFF (4-1020 mS)	104 mS
Double Ring Maximum Off Time	TBD	DBL RG MAX OFF (4-1020 mS)	304 mS
Ring Stop Detection Time	TBD	RING STOP DET (64-16320)	6016 mS
Transmit Wink Time	TBD	TX WINK TIME (4-1020 mS)	152 mS
Receive Wink Minimum Time	TBD	RX WINK TIME (4-1020 mS)	100 mS
Receive Wink Maximum Time	TBD	RX WINK MAX (4-1020 mS)	300 mS
Transmit Remove Ring Time	When the system receives a tip ground signal from the telco, it waits this interval before closing the loop. Set this timer for compatibility with the T1 service provider. If this interval is too long, normal call processing could be interrupted.	TX REMOVE RING (4-1020 mS)	50 mS

Conditions

None

0400 - Timers

0406 - T1 Trunk Timers

Telephone Programming Instructions

0406 - T1 Trunk Timers (Entry Range) [Default Setting]		
ICM + ##*#* + Password (372000) + HOLD + 0406 + HOLD.		
	MIN RING DET	(8-2040 mS) [104]
	SNGL RG MIN DET	(8-2040 mS) [504]
	DBL RG MIN OFF	(4-1020 mS) [104]
	DBL RG MAX OFF	(4-1020 mS) [304]
	RING STOP DET	(64-16320 mS) [6016]
	TX WINK TIME	(4-1020 mS) [152]
	RX WINK MIN	(4-1020 mS) [100]
	RX WINK MAX	(4-1020 mS) [300]
	TX REMOVE RING	(4-1020 mS) [50]
Press this:	To do this:	
HOLD	Enter (accept) data you entered.	
CONF	Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.	
LND	Erase the entry to the left of the cursor.	
CHECK	Restore the previous entry.	
CLEAR	Clear the entry from the display (unless otherwise noted).	

0400 - Timers

0407 - E1 Trunk Timers

Description



DS1000
DS2000

Not available.
Available.

Use **0407 - E1 Trunk Timers** to set the value of timers unique to E1 trunks.

0407-E1 Trunk Timers			
Option	Description	Entries	Default
Forced Release Time	TBD	FORCE RLS (16-4080 mS)	800 mS
Transmit Double Answer Time	TBD	TX DBL ANSWER (64-16320 mS)	2048 mS
Receive Double Answer Minimum Time	TBD	RX DBL ANS MIN (64-16320 mS)	1536 mS
Receive Double Answer Maximum Time	TBD	RX DBL ANS MAX (64-16320 mS)	3008 mS
Transmit Seize Acknowledge Time	TBD	TX SEIZE ACK (4-1020 mS)	100 mS
Receive Seize Acknowledge Minimum Time	TBD	RX SEIZE ACK MIN (4-1020 mS)	100 mS
Receive Seize Acknowledge Maximum Time	TBD	RZ SEIZE ACK MAX (4-1020 mS)	300 mS
Transmit Digit Acknowledge Time	TBD	TX DIGIT ACK (4-1020 mS)	100 mS
Receive Digit Acknowledge Minimum Time	TBD	RX DIGIT ACK MIN (4-1020 mS)	100 mS
Receive Digit Acknowledge Maximum Time	TBD	RX DIGIT ACK MAX (4-1020 mS)	300 mS
Receive Meter Pulse Minimum Time	TBD	RX METER PLS MIN (4-1020 mS)	100 mS
Receive Meter Pulse Maximum Time	TBD	RX METER PLS MAX (4-1020 mS)	300 mS
Receive Line Block Minimum Time	TBD	RX LINE BLK MIN (64-16320 mS)	2048 mS
Receive Line Block Recover Time	TBD	RX LINE BLK RCV (64-16320 mS)	2048 mS
Transmit Clear Signal Time	TBD	TX CLEAR SIGNAL (16-4080 mS)	1008 mS
Transmit Seize Signal Time	TBD	TX SEIZE SIGNAL (8-2040 mS)	800 mS

Conditions

None


0400 - Timers

0407 - E1 Trunk Timers

Telephone Programming Instructions

0407 - E1 Trunk Timers (Entry Range) [Default Setting]		
ICM + ### + Password (372000) + HOLD + 0407 + HOLD.		
	FORCE RLS	(16-4080 mS) [800]
	TX DBL ANSWER	(64-16320 mS) [2048]
	RX DBL ANS MIN	(64-16320 mS) [1536]
	RX DBL ANS MAX	(64-16320 mS) [3008]
	TX SEIZE ACK	(4-1020 mS) [100]
	RX SZ ACK MIN	(4-1020 mS) [100]
	RX SZ ACK MAX	(4-1020 mS) [300]
	TX DIGIT ACK	(4-1020 mS) [100]
	RX DIG ACK MIN	(4-1020 mS) [100]
	RX DIG ACK MAX	(4-1020 mS) [300]
	RX MET PLS MIN	(4-1020 mS) [100]
	RX MET PLS MAX	(4-1020 mS) [300]
	RX LINE BLK MIN	(64-16320 mS) [2048]
	RX LINE BLK RCV	(64-16320 mS) [2048]
	TX CLEAR SIGNAL	(16-4080 mS) [1008]
	TX SEIZE SIGNAL	(8-2040 mS) [800]
Press this:	To do this:	
HOLD	Enter (accept) data you entered.	
CONF	Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.	
LND	Erase the entry to the left of the cursor.	
CHECK	Restore the previous entry.	
CLEAR	Clear the entry from the display (unless otherwise noted).	

Description

	DS1000	Not available.
	DS2000	Available.

Use **0408 - E1 MFC Timers** to set the value of timers unique to E1 MFC Dialing.

0407-E1 Trunk Timers			
Option	Description	Entries	Default
Group A Response Time	TBD	WAIT GA RESPONSE (1-32 seconds)	12 seconds
Group A Tone Complete Time	TBD	WAIT GA TONE COMP (1-32 seconds)	12 seconds
Group B Response Time	TBD	WAIT GB RESPONSE (1-32 seconds)	12 seconds
Group B Tone Complete Time	TBD	WAIT GB TONE COMP (1-32 seconds)	12 seconds
Group C Response Time	TBD	WAIT GC RESPONSE (1-32 seconds)	12 seconds
Group C Tone Complete Time	TBD	WAIT GC TONE COMP (1-32 seconds)	12 seconds
Group I Signal Time	TBD	WAIT GI SIGNAL (1-32 seconds)	12 seconds
Group I Tone Complete Time	TBD	WAIT GITONE COMP (1-32 seconds)	12 seconds
Group II Signal Time	TBD	WAIT GII SIGNAL (1-32 seconds)	12 seconds
Group A Pulse Time	TBD	GA PULSE TIME (50-600 mS)	100 mS

Conditions

None

0400 - Timers

0408 - E1 MFC Timers

Telephone Programming Instructions

0408 - E1 MFC Timers (Entry Range) [Default Setting]		
ICM + ##*#* + Password (372000) + HOLD + 0408 + HOLD.		
	WAIT GA RESPONSE	(1-32 Sec) [12]
	WAIT GA TONE COMP	(1-32 Sec) [12]
	WAIT GB RESPONSE	(1-32 Sec) [12]
	WAIT GB TONE COMP	(1-32 Sec) [12]
	WAIT GC RESPONSE	(1-32 Sec) [12]
	WAIT GC TONE COMP	(1-32 Sec) [12]
	WAIT GI SIGNAL	(1-32 Sec) [12]
	WAIT GI TONE COMP	(1-32 Sec) [12]
	WAIT GII SIGNAL	(1-32 Sec) [12]
	GA PULSE TIME	(50-600 mS) [100]
Press this:	To do this:	
HOLD	Enter (accept) data you entered.	
CONF	Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.	
LND	Erase the entry to the left of the cursor.	
CHECK	Restore the previous entry.	
CLEAR	Clear the entry from the display (unless otherwise noted).	

0500 - System Numbering

0501 - Numbering Plan

Description



DS1000/2000 Available.

Use **Program 0501- Numbering Plan** to customize the system's number plan. For each dialed digit (0-9, excluding # and *), assign a *Function Type* and an *Expected Digits* entry. *Function Type* defines the digit's function in the system (see the table below).

Function Type	Description
1	Operator Access
2	Intercom and Direct Trunk Access
3	Trunk Group Access

Expected Digits sets how many digits the system expects to receive when the digit string begins with selected digit. For example, digit 3 has *Function Type* 2 and *Expected Digits* 3. This means that digits 300-399 are Intercom numbers.

Refer to *Flexible Numbering Plan* on page 267 for more on customizing the system's number plan.

Conditions

None

Table 26: Program 0501 - Numbering Plan

Option	Description	Entries	Default
Digit 0 Options	Use this option to define the function type for dial strings beginning with 0. These strings are normally used for telephone system operator access (1). <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. See <i>Intercom</i> on page 339 for more. 	OPER 1 = OPER 2 = EXT 3 = LN GRP	1 (OPER)
	Use this option to define the total length of dial strings beginning with 0. These strings are normally two digits long (2). <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. See <i>Intercom</i> on page 339 for more. 	EXPECTED DGTS" 1-3	2
Digit 1 Options	Use this option to define the function type for dial strings beginning with 1. These strings are normally reserved for Intercom access (2). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 1. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXPECTED DGTS" 1-3	3

0500 - System Numbering

0501 - Numbering Plan

Table 26: Program 0501 - Numbering Plan

Option	Description	Entries	Default
Digit 2 Options	Use this option to define the function type for dial strings beginning with 2. These strings are normally reserved for Intercom access (2). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 2. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	"2" EXPECTED DGTS" 1-3	3
Digit 3 Options	Use this option to define the function type for dial strings beginning with 3. These strings are by default assigned to Intercom access (2). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 3. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	"3" EXPECTED DGTS" 1-3	3
Digit 4 Options	Use this option to define the function type for dial strings beginning with 4. These strings are by default assigned to Direct Trunk Access (2). <ul style="list-style-type: none"> See <i>Central Office Calls, Placing</i> on page 119 for more. See <i>Direct Trunk Access</i> on page 191 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 4. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Central Office Calls, Placing</i> on page 119 for more. See <i>Direct Trunk Access</i> on page 191 for more. 	"4" EXPECTED DGTS" 1-3	3
Digit 5 Options	Use this option to define the function type for dial strings beginning with 5. These strings are normally reserved for Intercom access (2). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 5. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	"5" EXPECTED DGTS" 1-3	3

0500 - System Numbering

0501 - Numbering Plan

Table 26: Program 0501 - Numbering Plan

Option	Description	Entries	Default
Digit 6 Options	Use this option to define the function type for dial strings beginning with 6. These strings are normally reserved for Intercom access (2). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 6. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	“6” EXPECTED DGTS” 1-3	3
Digit 7 Options	Use this option to define the function type for dial strings beginning with 7. These strings are normally reserved for Intercom access (2). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 7. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	“7” EXPECTED DGTS” 1-3	3
Digit 8 Options	Use this option to define the function type for dial strings beginning with 8. These strings are normally reserved for Intercom access (2). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	EXT 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 8. These strings are normally three digits long (3). <ul style="list-style-type: none"> See <i>Intercom</i> on page 339 for more. 	“8” EXPECTED DGTS” 1-3	3
Digit 9 Options	Use this option to define the function type for dial strings beginning with 9. These strings are normally reserved to trunk access (3). <ul style="list-style-type: none"> See <i>Central Office Calls, Placing</i> on page 119 for more. See <i>Trunk Group Routing</i> on page 566 for more. See <i>Trunk Groups</i> on page 572 for more. 	LN GRP 1 = OPER 2 = EXT 3 = LN GRP	3 (LN GRP)
Single Digit Access	Use this option to enable or disable single digit access. If enabled (Y), users can dial 9 to select their assigned dial 9 Trunk Group. If disabled, users must dial 9 followed by the Trunk Group number (0-8 for Trunk Groups 0-8). <ul style="list-style-type: none"> See <i>Central Office Calls, Placing</i> on page 119 for more. See <i>Trunk Group Routing</i> on page 566 for more. 	SINGL DGT ACCESS? Y or N	Y

0500 - System Numbering

0501 - Numbering Plan

Telephone Programming Instructions

0501 - Numbering Plan (Page 1 of 2) (Entry Range) [Default Setting]			
ICM + ##*#* + Password (372000) + HOLD + 0501 + HOLD.			
DIAL DIGIT '0'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [OPER]	
	EXPECTED DIGITS	(1-3) [2]	
DIAL DIGIT '1'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '2'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '3'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '4'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '5'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '6'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '7'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '8'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [EXT]	
	EXPECTED DIGITS	(1-3) [3]	
DIAL DIGIT '9'			
	FUNCTION TYPE	(1=OPER, 2=EXT, 3=LN GRP) [LN GRP]	
	SINGL DGT ACCESS	(9=Yes, 6=No) [Yes]	
Press this:		To do this:	
HOLD		Enter (accept) data you entered.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	

0500 - System Numbering

0501 - Numbering Plan

0501 - Numbering Plan (Page 2 of 2) (Entry Range) [Default Setting]	
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0500 - System Numbering

0502 - Station Extension Assignments

Description



DS1000/2000 || Available.

Use **0502-Station Extension Assignments** to view and change the extension numbers assigned to each station (including Voice Mail). By default, stations 1-128 (1-34 in DS1000) are assigned to extension numbers 300-427 (300-333 in DS1000) and voice mail stations 201-208 are assigned to extension numbers 500-507. The entire available extension number range is 100-899. When choosing a new extension number for a station, this program will only let you select a number *that is not already assigned to another station or trunk*.

Conditions

None

Telephone Programming Instructions

0502-Station Extension Assignment	
ICM + ### + Password (372000) + HOLD + 0502 + HOLD.	
STATION NUMBER?	Enter the number of the station (e.g., 1) whose extension number you want to view.
EXTENSION NUM?	<ul style="list-style-type: none"> The extension number for the station you selected displays. Optionally enter a new extension number + HOLD. EXTENSION ASSIGNED means the assignment was successful. EXTENSION IN USE means the extension number is already used by another station.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll through the available stations or station/extension number assignments.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0500 - System Numbering

0503 - Trunk Extension Assignments

Description



DS1000/2000 || Available.

Use **0503-Trunk Extension Assignments** to view and change the extension numbers assigned to each trunk. By default, trunks 1-64 (1-6 in DS1000) are assigned to extension numbers 101-164 (101-106 in DS1000). The entire available extension number range is 100-899. When choosing a new extension number for a trunk, this program will only let you select a number *that is not already assigned to another trunk or station.*

Conditions

None

Telephone Programming Instructions

0503-Trunk Extension Assignment	
ICM + ### + Password (372000) + HOLD + 0503 + HOLD.	
TRUNK NUMBER?	Enter the number of the trunk (e.g., 1) whose extension number you want to view.
EXTENSION NUM?	<ul style="list-style-type: none"> • The extension number for the trunk you selected displays. • Optionally enter a new trunk extension number + HOLD. • EXTENSION ASSIGNED means the assignment was successful. • EXTENSION IN USE means the extension number is already used by another trunk.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll through the available trunks.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0500 - System Numbering

0505 - Extension Swap Utility

Description



DS1000/2000 Available.

Use **0505-Extension Swap Utility** to swap all the programming between two extensions or two trunks. This is helpful if two employees swap offices, for example. You can use **0505-Extension Swap Utility** to swap the two extensions, their extension numbers, and all related programming without cross-connecting.

Note: In DS2000, use **9902-Set Up Stations** and **9903-Set Up Trunks** to swap entire PCBs.

Conditions

You can only use **0505-Extension Swap Utility** to swap installed and working extensions.

Telephone Programming Instructions

0505-Extension Swap Utility				
ICM + ### + Password (372000) + HOLD + 0505 + HOLD.				
	EXTENSION?	Enter the number of the first extension or trunk you want to swap (e.g., 301).		
		WITH EXTENSION?	Enter the number of the second extension or trunk you want to swap (e.g., 302).	
			xxx <=> yyy (Y/N)?	The display shows the first extension (xxx) and the second extension (yyy).
			Y (9)	Accept the displayed swap. <ul style="list-style-type: none"> • EXTENSIONS SWAPPED means the swap was successful. • SWAP FAILED means the swap was unsuccessful.
			N (6)	Back up without accepting the displayed swap.
Press this:		To do this:		
	HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.		
	CONF	Cancel your entry and back up to the previous prompt level.		
	LND	Erase the entry to the left of the cursor.		
	CHECK	Restore the previous entry.		
	CLEAR	Clear the entry from the display (unless otherwise noted).		

Description



DS1000/2000 Available.

Use **Program 0510- ACD/UCD Master Extension Numbers and Names** to assign extension numbers and names to the ACD/UCD master extensions. The system can have up to eight ACD/UCD groups (1-8). The extension numbers you enter must be unique and cannot be a physical port (e.g., 300).

UCD Hunting Group master numbers are predefined as shown in the following table. If required, you can reassign the UCD Hunting Group master numbers to any other *unused* extension number (100-899). See *0502 - Station Extension Assignments* on page 676 for more.

0510 UCD Hunting Group Default Assignments	
UCD Hunting Group	Default Master Number
1	700
2	701
3	702
4	703
5	704
6	705
7	706
8	707

Conditions

None

Table 27: Program 0510 - ACD/UCD Master Extension Numbers and Names

Option	Description	Entries	Default
Group Number	Use this option to select the ACD/UCD group you want to program.	GROUP NUM?	N/A
Hunt Group Master Number	Use this option to enter the master extension number associated with the group selected. You can change the entry, <i>but cannot undefine a master number</i> (by pressing CLEAR). <ul style="list-style-type: none"> See <i>Flexible Numbering Plan</i> on page 267 for more. See <i>Extension Hunting</i> on page 239 for more. 	EXT NUM? UCD Hunting group master numbers are normally 700-707.	See Default Assignments table above
Overflow Destination	Use this option to assign the ACD/UCD Group overflow destination. <ul style="list-style-type: none"> See <i>Extension Hunting</i> on page 239 for more. 	OVERFLOW DEST? 300-427 in DS2000 or 300-333 in DS1000, Ring Group Master Number, or UCD Group Master Number	Not assigned

0500 - System Numbering

0510 - ACD/UCD Master Extension Numbers and Names

Table 27: Program 0510 - ACD/UCD Master Extension Numbers and Names

Option	Description	Entries	Default
Name	Use this option to enter the name associated with the group selected. <ul style="list-style-type: none"> • See <i>Extension Hunting</i> on page 239 for more. • When entering names, use <i>Table 16: Keys for Entering Names</i> on page 615. 	NAME?	Not assigned
Hunt Group Ring Type	Use this option to assign a Ring Type to calls ringing UCD Hunting Group master numbers. When an extension in the UCD Group rings, the system uses the Ring Type specified in this option. Note that entry 0 is the system's default ("Standard") ringing for UCD Hunting Group calls. The tone cannot be customized. <ul style="list-style-type: none"> • See <i>Distinctive Ringing</i> on page 200 for more. 	RING TYPE? 1 (Ring Type A) 2 (Ring Type B) 3 (Ring Type C) 0 (Standard Group)	0 (Standard Group)

Telephone Programming Instructions

0510 - ACD/UCD Master Extension Numbers and Names (Entry Range) [Default Setting]	
ICM + ###* + Password (372000) + HOLD + 0510 + HOLD.	
GROUP NUM	(1-8) [No entry]
EXT NUM	(Any valid unused extension number) [Group 1=700, Group 2=701, Group 3=702, Group 4=703, Group 5=704, Group 6=705, Group 7=706, Group 8=707]
OVERFLOW DEST	(300-333 in DS1000, 300-427 in DS2000, Ring Group master number, UCD Group master number, CLEAR=Not assigned) [Not assigned]
NAME	(15 characters max) [Group 1=Voice Mail, Groups 2-8=No name assigned]
	When entering names, see <i>Keys for Entering Names</i> on page 615.
RING TYPE	(0=Standard Group, 1=Ring type A, 2=Ring Type B, 3=Ring Type C) [0]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

Description



DS1000/2000 Available.

Use **Program 0511- Ring Group Master Extension Numbers and Names** to assign extension numbers and names to the Ring Group master extensions. The system can have up to eight Ring Groups (1-8). The extension numbers you enter must be unique and not overlap extension numbers used for trunks, extensions, or Extension Hunting master numbers.

Ring Group master numbers are predefined as shown in the following table. If required, you can reassign the Ring Group master numbers to any other *unused* extension number (100-899). See *Program 0502 - Station Extension Assignments* on page 676 for more.

0511 Ring Group Default Assignments	
Ring Group	Default Master Number
1	600
2	601
3	602
4	603
5	604
6	605
7	606
8	607

Conditions

None

Table 28: Program 0511 - Ring Group Master Extension Numbers and Names

Option	Description	Entries	Default
Group Number	Use this option to select the Ring Group you want to program.	GROUP NUM?	N/A
Name	Use this option to enter the name associated with the Ring Group selected. <ul style="list-style-type: none"> See <i>Central Office Calls, Answering</i> on page 113 for more. See <i>Group Ring</i> on page 279 for more. When entering names, use <i>Table 16: Keys for Entering Names</i> on page 615. 	NAME?	Not assigned

0500 - System Numbering

0511 - Ring Group Master Extension Numbers and Names

Table 28: Program 0511 - Ring Group Master Extension Numbers and Names

Option	Description	Entries	Default
Extension Number	Use this option to enter the master number associated with the Ring Group selected. You can change the entry, <i>but cannot undefine a master number</i> (by pressing CLEAR). <ul style="list-style-type: none"> • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Flexible Numbering Plan</i> on page 267 for more. • See <i>Group Ring</i> on page 279 for more. 	EXT NUM? Ring Group master numbers are normally 600-607.	See Default Assignments table above
Ring Group Ring Type	Use this option to assign a Ring Type to calls ringing Ring Group master numbers. When an extension in the Ring Group rings, the system uses the Ring Type specified in this option. Note that entry 0 is the system's default ("Standard") ringing for Ring Group calls. The tone cannot be customized. <ul style="list-style-type: none"> • See <i>Distinctive Ringing</i> on page 200 for more. 	RING TYPE? 1 (Ring Type A) 2 (Ring Type B) 3 (Ring Type C) 0 (Standard Group)	0 (Standard Group)

Telephone Programming Instructions

0511 - Ring Group Master Extension Numbers and Names (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 0511 + HOLD.	
GROUP NUM	(1-8) [No entry]
NAME	(15 characters max) [Group 1=Voice Mail, Groups 2-8=No name assigned]
	When entering names, see <i>Keys for Entering Names</i> on page 615.
EXT NUM	(Any valid unused extension number) [Group 1=600, Group 2=601, Group 3=602, Group 4=603, Group 5=604, Group 6=605, Group 7=606, Group 8=607]
RING TYPE	(0=Standard Group, 1=Ring type A, 2=Ring Type B, 3=Ring Type C) [0]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0600 - Toll Restriction

0601 - Configure Toll Level Options

Description



DS1000/2000

Separately initializing Toll Restriction for North American and Latin American applications requires software version 03.10.08 or higher.

Use **Program 0601 - Configure Toll Level Options** to enable or disable various options for the selected toll level. You can also use this program to initialize the Toll Restriction tables. *Initializing program 0601 automatically initializes programs 0602 through 0606 and programs 1303 through 1305.*

Conditions

None

Table 29: Program 0601 - Configure Toll Level Options

Option	Description	Entries	Default
Program Toll Restriction	Use this option to program Toll Restriction. (You should use <i>0601 - Initialize Toll Restriction</i> to initialize Toll Restriction before using it for the first time.) <ul style="list-style-type: none"> See <i>Toll Restriction</i> on page 549 for more. 	PROG-P P = Program	N/A
Initialize Toll Restriction	Use this option to initialize Toll Restriction. You should initialize Toll Restriction before using if for the first time. <i>Initializing program 0601 automatically initializes programs 0602 through 0606 and programs 1303 through 1305.</i> <ul style="list-style-type: none"> See <i>Toll Restriction</i> on page 549 for more. <p><u>Software version 03.10.08 or higher</u> You can initialize Toll Restriction for North American or Latin American applications. Do not initialize Toll Restriction for Latin America if your system is installed in North America. Documentation on Latin American Toll Restriction is available separately. It is not part of this manual.</p>	INIT-I I = Initialize	N/A
Toll Restriction Level	Use this option to select the Toll Restriction level you want to program. The entries that follow pertain to the Toll Restriction Level you select in this step. <ul style="list-style-type: none"> See <i>Toll Restriction</i> on page 549 for more. 	TOLL LEVEL 1-7	1
Active Dial Pad	Use this option to enable or disable Active Dial Pad (continuous dialing) for trunk calls. <ul style="list-style-type: none"> See <i>Toll Restriction</i> on page 549 for more. 	ACTIVE DIAL PAD? Y = Enabled N = Disabled	Y (Enabled)

0600 - Toll Restriction

0601 - Configure Toll Level Options

Table 29: Program 0601 - Configure Toll Level Options

Option	Description	Entries	Default
N11 Dialing	Use this option to enable or disable dialing N11 services such as directory assistance (411) and repair (611). This option does not restrict 911 or 1 + 911 calls. These calls are always allowed. <ul style="list-style-type: none">• See <i>Toll Restriction</i> on page 549 for more.	N11 DIALING? Y = Enabled N = Disabled	Y (Enabled)
0+ Dialing	Use this option to enable or disable an extension's ability to manually dial 0 + (operator assisted) calls. <ul style="list-style-type: none">• See <i>Toll Restriction</i> on page 549 for more.	0 + DIALING? Y = Enabled N = Disabled	Y (Enabled)
International (011) Dialing	Use this option to enable or disable 011 (international) dialing. <ul style="list-style-type: none">• See <i>Toll Restriction</i> on page 549 for more.	INT'L DIAL? Y = Enabled N = Disabled	Y (Enabled)
Equal Access (101X + XXX) Dialing	This option disables (N) or enables (Y) the dialing of Equal Access Codes 1011 through 1019. It has no affect on the more common 1010 XXX Equal Access Codes. Use <i>0602 - 1010 + XXX Equal Access Dialing</i> to restrict the more common 1010 codes. <ul style="list-style-type: none">• See <i>Toll Restriction</i> on page 549 for more.	101X DIALING? Y = Enabled N = Disabled	Y (Enabled)

0600 - Toll Restriction

0601 - Configure Toll Level Options

Telephone Programming Instructions

0601 - Configure Toll Level Options (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 0601 + HOLD.	
PROG-P / INIT-I	(7[P]=Program, 4[I]=Initialize) [No entry] <ul style="list-style-type: none"> You should initialize Toll Restriction when programming it for the first time. If you initialize an existing Toll Restriction setup, you'll return all your programmed entries to their factory-installed initial values. Initializing program 0601 automatically initializes programs 0602 through 0606 and programs 1303 through 1305.
If you enter 4 (I) to initialize Toll Restriction:	
	ARE YOU SURE (9=Yes, 6=No) [No entry]
If you enter 9 (Y) to initialize Toll Restriction:	
	1 - U.S. / 2 - INTL (1+ HOLD = US, 2 + HOLD =International) [No entry]
	<ul style="list-style-type: none"> You should choose option 1 (US) if your system is installed in North America. Choosing option 2 (International) enables a separately documented Toll Restriction program. Do not initialize Toll Restriction for Latin America if the system is installed in North America.
If you enter 7 (P) to program Toll Restriction:	
	TOLL LEVEL (1-7) [1]
	ACTIVE DIAL PAD (9=Yes, 6=No) [Yes]
	N11 DIALING (9=Yes, 6=No) [Yes]
	0 + DIALING (9=Yes, 6=No) [Yes]
	INT'L DIAL (9=Yes, 6=No) [Yes]
	101X DIALING (9=Yes, 6=No) [Yes] <ul style="list-style-type: none"> This option enables or disables the dialing of Equal Access Codes 1011 through 1019. It has no affect on the more common 1010 XXX Equal Access Codes. Use <i>0602 - 1010 + XXX Equal Access Dialing</i> to restrict the more common 1010 codes.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	<ul style="list-style-type: none"> Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0600 - Toll Restriction

0602 - 1010 + XXX Equal Access Dialing

Description



DS1000/2000

Available.

Use **Program 0602 - 1010 + XXX Equal Access Dialing** to set up the 1010 + XXX Equal Access Dialing table. By default, this type of dialing is enabled because the 1010 + XXX table is a deny table with no entries (i.e., it denies nothing). Use the following as a guide when editing the entries in this program.

Table 30: Entering 0602 - 1010 + XXX Equal Access Dialing Data

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 0602 + HOLD + Toll Level + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
T (8) + A (2) + HOLD	Makes the table an allow table. The codes you enter in the table are allowed. Codes omitted are denied.
T (8) + D (3) + HOLD	Makes the table a deny table. The codes you enter in the table are denied. Codes omitted are allowed.
I (4) + Y (9)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
When in the table edit mode (i.e., 0602 + HOLD + Toll Level + HOLD + E[3]):	
A (2)	Allows you to add codes to the table. For example, A + 220 + HOLD adds code 220.
D (3)	Allows you to delete codes from the table. For example, D + 220 + HOLD deletes code 220.
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

None

0600 - Toll Restriction

0602 - 1010 + XXX Equal Access Dialing

Telephone Programming Instructions

0602 - 1010 + XXX Equal Access Dialing (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 0602 + HOLD.	
TOLL LEVEL	(1-7) [1]
EDIT-E/TYPE-T/INIT-I	(E[3]=Edit, T[8]=Type, I[4]=Init) [no entry]
	If you enter I (4) to initialize this Toll Restriction table: • You only need to initialize the table if you need to erase all the existing entries.
ARE YOU SURE	(9=Yes, 6=No) [No entry]
	If you enter T (8) to set the Toll Restriction table type:
ALLOW-A, DENY-D	(A[2]=Allow, D[3]=Deny) [2]
	If you enter E (3) to edit the Toll Restriction table data:
END OF TABLE	Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
A (2)	Dial A (2) to add a code to the table (e.g., A + 220 + HOLD adds code 220).
D (3)	Dial D (3) to delete a code from the table (e.g., D + 220 + HOLD deletes code 220).
CHECK	Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0600 - Toll Restriction

0603 - 1 + NPA/NXX Dialing 3-Digit Table

Description



DS1000/2000

Available.

Use **Program 0603 - 1 + NPA/NXX Dialing 3-Digit Table** to set up the 1 + NPA/NXX Dialing 3-Digit table. By default, this type of dialing is enabled because the 1 + NPA/NXX Dialing 3-Digit table is a deny table with no entries (i.e., it denies nothing). Use the following as a guide when editing the entries in this program.

Table 31: Entering 0603 - 1 + NPA/NXX Dialing 3-Digit Table Data

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 0603 + HOLD + Toll Level + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
T (8) + A (2) + HOLD	Makes the table an allow table. The codes you enter in the table are allowed. Codes omitted are denied.
T (8) + D (3) + HOLD	Makes the table a deny table. The codes you enter in the table are denied. Codes omitted are allowed.
I (4) + Y (9)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
When in the table edit mode (i.e., 0603 + HOLD + Toll Level + HOLD + E[3]):	
A (2)	Allows you to add codes to the table. For example, A + 203 + HOLD adds code 203.
D (3)	Allows you to delete codes from the table. For example, D + 203 + HOLD deletes code 203.
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

None

0600 - Toll Restriction

0603 - 1 + NPA/NXX Dialing 3-Digit Table

Telephone Programming Instructions

0603 - 1 + NPA/NXX Dialing 3-Digit Table (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 0603 + HOLD.	
TOLL LEVEL	(1-7) [1]
EDIT-E/TYPE-T/INIT-I	(E[3]=Edit, T[8]=Type, I[4]=Init) [no entry]
	If you enter I (4) to initialize this Toll Restriction table: • You only need to initialize the table if you need to erase all the existing entries.
ARE YOU SURE	(9=Yes, 6=No) [No entry]
	If you enter T (8) to set the Toll Restriction table type:
ALLOW-A, DENY-D	(A[2]=Allow, D[3]=Deny) [2]
	If you enter E (3) to edit the Toll Restriction table data:
END OF TABLE	Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
A (2)	Dial A (2) to add a code to the table (e.g., A + 220 + HOLD adds code 220).
D (3)	Dial D (3) to delete a code from the table (e.g., D + 220 + HOLD deletes code 220).
CHECK	Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0600 - Toll Restriction

0604 - 1 + NPA + NXX Dialing 6-Digit Table

Description



DS1000/2000 Available.

Use **Program 0604 - 1 + NPA + NXX Dialing 6-Digit Table** to set up the 1 + NPA + NXX Dialing 6-Digit table. By default, this type of dialing is enabled because the 1 + NPA + NXX Dialing 6-Digit table is a deny table with no entries (i.e., it denies nothing). Use the following as a guide when editing the entries in this program.

Table 32: Entering 0604 - 1 + NPA + NXX Dialing 6-Digit Table Data

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 0604 + HOLD + Toll Level + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
T (8) + A (2) + HOLD	Makes the table an allow table. The codes you enter in the table are allowed. Codes omitted are denied.
T (8) + D (3) + HOLD	Makes the table a deny table. The codes you enter in the table are denied. Codes omitted are allowed.
I (4) + Y (9)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
When in the table edit mode (i.e., 0604 + HOLD + Toll Level + HOLD + E[3]):	
A (2)	Allows you to add codes to the table. For example, A + 203926 + HOLD adds code 203926.
D (3)	Allows you to delete codes from the table. For example, D + 203926 + HOLD deletes code 203926.
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

None

0600 - Toll Restriction

0604 - 1 + NPA + NXX Dialing 6-Digit Table

Telephone Programming Instructions

0604 - 1 + NPA + NXX Dialing 6-Digit Table (Entry Range) [Default Setting]	
ICM + ##** + Password (372000) + HOLD + 0604 + HOLD.	
TOLL LEVEL	(1-7) [1]
EDIT-E/TYPE-T/INIT-I	(E[3]=Edit, T[8]=Type, I[4]=Init) [no entry]
	If you enter I (4) to initialize this Toll Restriction table: • You only need to initialize the table if you need to erase all the existing entries.
ARE YOU SURE	(9=Yes, 6=No) [No entry]
	If you enter T (8) to set the Toll Restriction table type:
ALLOW-A, DENY-D	(A[2]=Allow, D[3]=Deny) [2]
	If you enter E (3) to edit the Toll Restriction table data:
END OF TABLE	Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
A (2)	Dial A (2) to add a code to the table (e.g., A + 203926 + HOLD adds code 203926).
D (3)	Dial D (3) to delete a code from the table (e.g., D + 203926 + HOLD deletes code 203926).
CHECK	Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0600 - Toll Restriction

0605 - NPA/NXX Dialing 3-Digit Table

Description



DS1000/2000 Available.

Use **Program 0605 - NPA/NXX Dialing 3-Digit Table** to set up the NPA/NXX Dialing 3-Digit table. By default, this type of dialing is enabled because the NPA/NXX Dialing 3-Digit table is a deny table with no entries (i.e., it denies nothing). Use the following as a guide when editing the entries in this program.

Table 33: Entering 0605 - NPA/NXX Dialing 3-Digit Table Data

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 0605 + HOLD + Toll Level + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
T (8) + A (2) + HOLD	Makes the table an allow table. The codes you enter in the table are allowed. Codes omitted are denied.
T (8) + D (3) + HOLD	Makes the table a deny table. The codes you enter in the table are denied. Codes omitted are allowed.
I (4) + Y (9)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
When in the table edit mode (i.e., 0605 + HOLD + Toll Level + HOLD + E[3]):	
A (2)	Allows you to add codes to the table. For example, A + 203 + HOLD adds code 203.
D (3)	Allows you to delete codes from the table. For example, D + 203 + HOLD deletes code 203.
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

None

0600 - Toll Restriction

0605 - NPA/NXX Dialing 3-Digit Table

Telephone Programming Instructions

0605 - NPA/NXX Dialing 3-Digit Table (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 0605 + HOLD.	
TOLL LEVEL	(1-7) [1]
EDIT-E/TYPE-T/INIT-I	(E[3]=Edit, T[8]=Type, I[4]=Init) [no entry]
	If you enter I (4) to initialize this Toll Restriction table: • You only need to initialize the table if you need to erase all the existing entries.
ARE YOU SURE	(9=Yes, 6=No) [No entry]
	If you enter T (8) to set the Toll Restriction table type:
ALLOW-A, DENY-D	(A[2]=Allow, D[3]=Deny) [2]
	If you enter E (3) to edit the Toll Restriction table data:
END OF TABLE	Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
A (2)	Dial A (2) to add a code to the table (e.g., A + 203 + HOLD adds code 203).
D (3)	Dial D (3) to delete a code from the table (e.g., D + 203 + HOLD deletes code 203).
CHECK	Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0600 - Toll Restriction

0606 - NPA + NXX Dialing 6-Digit Table

Description



DS1000/2000

This table is permanently set as a deny table.

Use **Program 0606 - NPA + NXX Dialing 6-Digit Table** to set up the NPA + NXX Dialing 6-Digit table. By default, this table provides no additional restriction because the NPA + NXX Dialing 6-Digit table is a deny table with no entries (i.e., it denies nothing). Use the following as a guide when editing the entries in this program.

Table 34: Entering 0606 - NPA + NXX Dialing 6-Digit Table Data

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 0606 + HOLD + Toll Level + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
T (8) + A (2) + HOLD	Makes the table an allow table. The codes you enter in the table are allowed. Codes omitted are denied.
T (8) + D (3) + HOLD	Makes the table a deny table. The codes you enter in the table are denied. Codes omitted are allowed.
I (4) + Y (9)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
When in the table edit mode (i.e., 0606 + HOLD + Toll Level + HOLD + E[3]):	
A (2)	Allows you to add codes to the table. For example, A + 203926 + HOLD adds code 203926.
D (3)	Allows you to delete codes from the table. For example, D + 203926 + HOLD deletes code 203926.
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

None

0600 - Toll Restriction

0606 - NPA + NXX Dialing 6-Digit Table

Telephone Programming Instructions

0606 - NPA + NXX Dialing 6-Digit Table (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 0606 + HOLD.	
TOLL LEVEL	(1-7) [1]
EDIT-E/INIT-I	(E[3]=Edit, I[4]=Init) [no entry]
	If you enter I (4) to initialize this Toll Restriction table: • You only need to initialize the table if you need to erase all the existing entries.
ARE YOU SURE	(9=Yes, 6=No) [No entry]
	If you enter E (3) to edit the Toll Restriction table data:
END OF TABLE	Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
A (2)	Dial A (2) to add a code to the table (e.g., A + 203926 + HOLD adds code 203926).
D (3)	Dial D (3) to delete a code from the table (e.g., D + 203926 + HOLD deletes code 203926).
CHECK	Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0600 - Toll Restriction

0610 - PBX Access Codes Table

Description



DS1000/2000 Available.

Use **0610 - PBX Access Codes Table** to enter the system's PBX Access Codes. You can enter up to 10 PBX Access Codes. Each code is either 1 or 2 digits long, using the digits 0-9. You can use * as a wild card character that can be entered in any position. Use the following as a guide when programming.

Table 35: Entering 0610 - PBX Access Codes Table Data

When entering a code into the table (i.e., 0610 + HOLD + HOLD):	
HOLD	Registers the entry and moves forward through the program (or just moves forward if there is no entry).
CONF	Discards the current entry and backs up one level.
CLEAR	Erases the current entry.
CHECK	Restores the previous entry.
Vol ▲ and Vol ▼	Scrolls through the table entries.

Conditions

None

Telephone Programming Instructions

0610 - PBX Access Codes Table (Entry Range) [Default Setting]	
ICM + ##* + Password (372000) + HOLD + 0610 + HOLD.	
PBX CODE #	(PBX Code 0-9) [No entry]
ACCESS CODE	(Up to 2 digits long, using 0-9, *=wild card) [No entry]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

0800 - Display Messages

0801 - Selectable Display Messages

Description



DS1000/2000 Available.

Use **Program 0801 - Selectable Display Messages** to program the system's 16 Selectable Display Messages. Each message can be up to 20 characters long, including a blank spaces you may want to add for readability. All messages are appendable by user-entered digits.

When entering names, use *Table 16: Keys for Entering Names* on page 615. When creating a new user-appendable message, consider adding a space at the end of the text portion to improve readability. In the table, the X characters reserve space for user-entered digits.

- See *Selectable Display Messaging* on page 471 for more.

Conditions

None

Table 36: Program 0801 - Selectable Display Messages

Option	Default
Message 01	CALL (plus 15 user entries)
Message 02	BACK BY (plus 12 user entries)
Message 03	MEETING IN ROOM (plus 4 user entries)
Message 04	OUT TO LUNCH (plus 7 user entries)
Message 05	GONE FOR THE DAY (plus 3 user entries)
Message 06	ON VACATION (plus 8 user entries)
Message 07	ON BUSINESS TRIP (plus 3 user entries)
Message 08	IN A MEETING (plus 7 user entries)
Message 09	OUT UNTIL (plus 10 user entries)
Message 10	Undefined (up to 20 characters)
Message 11	Undefined (up to 20 characters)
Message 12	Undefined (up to 20 characters)
Message 13	Undefined (up to 20 characters)
Message 14	Undefined (up to 20 characters)
Message 15	Undefined (up to 20 characters)
Message 16	Undefined (up to 20 characters)

0800 - Display Messages

0801 - Selectable Display Messages

Telephone Programming Instructions

0801 - Selectable Display Messages (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 0801 + HOLD.	
MESSAGE NUM	(Message number 1-16) [1]
Enter message	(20 characters including spaces) [See below for default messages] When entering names, see <i>Keys for Entering Names</i> on page 615. 1 = CALL (plus 15 user entries) 2 = BACK BY (plus 12 user entries) 3 = MEETING IN ROOM (plus 4 user entries) 4 = OUT TO LUNCH (plus 7 user entries) 5 = GONE FOR THE DAY (plus 3 user entries) 6 = ON VACATION (plus 8 user entries) 7 = ON BUSINESS TRIP (plus 3 user entries) 8 = IN A MEETING (plus 7 user entries) 9 = OUT UNTIL (plus 10 user entries) 10-16 = Undefined (up to 20 user entries)
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1000 - Trunk Programming

1001 - Trunk Port Description

Description



DS1000	Available. Trunks 4-6 require the Expansion Board.
DS2000	Available.

Use **Program 1001 - Trunk Port Description** to program various options for trunks ports.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Also see *Program 1003 - Trunk Options* on page 712.

Conditions

Per FCC regulations, do not set *1001 - Trunk Transmit Gain* on page 700 higher than 0 dB.

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Trunk Circuit Type	<p>Use this option to set the trunk's circuit type. Set this option for compatibility with the connected telco or PBX.</p> <ul style="list-style-type: none"> • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Central Office Calls, Placing</i> on page 119 for more. • See <i>Direct Inward Dialing</i> on page 155 for more. • See <i>Direct Inward Line</i> on page 170 for more. • See <i>Pulse to Tone Conversion</i> on page 453 for more. • See <i>T1 Trunking</i> on page 530 for more. • See <i>Tie Lines</i> on page 542 for more. 	<p>TYP?</p> <p>00 = Uninstalled 51 = Loop start DTMF 52 = Loop start DP 53 = Ground start DTMF¹ 54 = Ground start DP¹ 57 = DID DTMF Wink Start¹ 58 = DID DP Wink Start¹ 59 = DID DTMF Immediate Start¹ 60 = DID DP Immediate Start¹ 61 = E&M DTMF Wink Start¹ 62 = E&M DP Wink Start¹ 63 = E&M DTMF Immediate Start¹ 64 = E&M DP Immediate Start¹</p> <p>¹ Requires T1 PCB.</p> <p>OPX DTMF (type 55) and OPX DP (type 56) trunks are not currently available.</p>	51
Trunk Extension Number	This option displays the trunk's extension number. This is for viewing only. You cannot edit this option from Program 1001.	EXT: (View only)	1nn (View only)

1000 - Trunk Programming

1001 - Trunk Port Description

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Trunk Name	<p>Use this option to assign a name to the trunk port.</p> <ul style="list-style-type: none"> Refer to <i>Table 16: Keys for Entering Names</i> on page 615 when entering names. See <i>Names for Extensions and Trunks</i> on page 384 for more. 	NAME:	TRUNK nn
Trunk Transmit Gain	<p>Use this option to set the trunk's transmit gain. This gain setting allows you to compensate for the transmit gain characteristics of the connected telco or PBX. The setting is applied to each line seizure.</p> <ul style="list-style-type: none"> See <i>Central Office Calls, Answering</i> on page 113 for more. See <i>Central Office Calls, Placing</i> on page 119 for more. See <i>PBX/Centrex Compatibility</i> on page 426 for more. 	<p>TRANSMIT GAIN?</p> <p>0 = 0 dB gain 1 = .5 dB gain 2 = 1 dB gain 3 = 1.5 dB gain 4 = 2 dB gain 5 = 2.5 dB gain 6 = 3 dB gain 7 = 3.5 dB gain 8 = 4 dB gain 9 = 4.5 dB gain 10 = 5 dB gain 11 = 5.5 dB gain 12 = 6 dB gain 13 = 6.5 dB gain 14 = 7 dB gain 15 = 7.5 dB gain 16 = 8 dB gain 17 = 8.5 dB gain 18 = 9 dB gain 19 = 9.5 dB gain 20 = 10 dB gain 21 = 10.5 dB gain 22 = 11 dB gain 23 = -11.5 dB gain 24 = 12 dB gain 25 = 12.5 dB gain 26 = 13 dB gain 27 = 13.5 dB gain 28 = 14 dB gain 29 = 14.5 dB gain 30 = 15 dB gain</p>	0

1000 - Trunk Programming

1001 - Trunk Port Description

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
		TRANSMIT GAIN? (Cont'd) 31 = .5 dB loss 32 = 1 dB loss 33 = 1.5 dB loss 34 = 2 dB loss 35 = 2.5 dB loss 36 = 3 dB loss 37 = 3.5 dB loss 38 = 4 dB loss 39 = 4.5 dB loss 40 = 5 dB loss 41 = 5.5 dB loss 42 = 6 dB loss 43 = 6.5 dB loss 44 = 7 dB loss 45 = 7.5 dB loss 46 = 8 dB loss 47 = 8.5 dB loss 48 = 9 dB loss 49 = 9.5 dB loss 50 = 10 dB loss 51 = 10.5 dB loss 52 = 11 dB loss 53 = 11.5 dB loss 54 = 12 db loss 55 = 12.5 dB loss 56 = 13 dB loss 57 = 13.5 dB loss 58 = 14 dB loss 59 = 14.5 loss 60 = 15 dB loss	0

1000 - Trunk Programming

1001 - Trunk Port Description

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
<p>Trunk Receive Gain</p>	<p>Use this option to set the trunk's receive gain. This gain setting allows you to compensate for the receive gain characteristics of the connected telco or PBX. The setting is applied to each line seizure.</p> <ul style="list-style-type: none"> • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Central Office Calls, Placing</i> on page 119 for more. • See <i>PBX/Centrex Compatibility</i> on page 426 for more. 	<p>RECEIVE GAIN? 0 = 0 dB gain 1 = .5 dB gain 2 = 1 dB gain 3 = 1.5 dB gain 4 = 2 dB gain 5 = 2.5 dB gain 6 = 3 dB gain 7 = 3.5 dB gain 8 = 4 dB gain 9 = 4.5 dB gain 10 = 5 dB gain 11 = 5.5 dB gain 12 = 6 dB gain 13 = 6.5 dB gain 14 = 7 dB gain 15 = 7.5 dB gain 16 = 8 dB gain 17 = 8.5 dB gain 18 = 9 dB gain 19 = 9.5 dB gain 20 = 10 dB gain 21 = 10.5 dB gain 22 = 11 dB gain 23 = -11.5 dB gain 24 = 12 dB gain 25 = 12.5 dB gain 26 = 13 dB gain 27 = 13.5 dB gain 28 = 14 dB gain 29 = 14.5 dB gain 30 = 15 dB gain</p>	<p>0</p>

1000 - Trunk Programming

1001 - Trunk Port Description

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
		RECEIVE GAIN? (Cont'd) 31 = .5 dB loss 32 = 1 dB loss 33 = 1.5 dB loss 34 = 2 dB loss 35 = 2.5 dB loss 36 = 3 dB loss 37 = 3.5 dB loss 38 = 4 dB loss 39 = 4.5 dB loss 40 = 5 dB loss 41 = 5.5 dB loss 42 = 6 dB loss 43 = 6.5 dB loss 44 = 7 dB loss 45 = 7.5 dB loss 46 = 8 dB loss 47 = 8.5 dB loss 48 = 9 dB loss 49 = 9.5 dB loss 50 = 10 dB loss 51 = 10.5 dB loss 52 = 11 dB loss 53 = 11.5 dB loss 54 = 12 db loss 55 = 12.5 dB loss 56 = 13 dB loss 57 = 13.5 dB loss 58 = 14 dB loss 59 = 14.5 loss 60 = 15 dB loss	0
Trunk Class of Service Assignment	Use this option to assign Class of Service (1-15) to trunks.	CLASS OF SERVICE? 1-15	1
PBX Line	Use this option to designate a trunk as a PBX line. Enable this option if the trunk connects to a PBX instead of the telco. <ul style="list-style-type: none"> • See <i>PBX/Centrex Compatibility</i> on page 426 for more. 	PBX LINE Y = Enable N = Disable	N
Disable Forced Account Codes	Use this option to enable or disable forced Account Codes for the trunk. If Y (Yes), the system <i>will not</i> enforce Forced Account Codes. If N (No), the system <i>will</i> enforce Forced Account Codes. <ul style="list-style-type: none"> • See <i>Account Codes</i> on page 24 for more. 	DISABLE No (Forced Account Codes are enabled) Yes (Forced Account Codes are disabled)	No (Forced Account Codes are enabled)

1000 - Trunk Programming

1001 - Trunk Port Description

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Loop Length	<p>Use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.</p> <ul style="list-style-type: none"> • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Central Office Calls, Placing</i> on page 119 for more. 	<p>LOOP LENGTH 1 = Short loop 2 = Long loop</p>	2 (Long loop)
Trunk Toll Restriction Level	<p>Use this option to set the Toll Level of the trunk during the day mode. If this Toll Level is higher than the extension's Toll Level, it may cause additional dialing restrictions. If it is lower, it will have no effect.</p> <ul style="list-style-type: none"> • See <i>Toll Restriction</i> on page 549 for more. 	<p>TOLL LEVEL? 0-7</p>	0
Override Extension Toll Restriction	<p>Use this option to "release" the Toll Restriction on a trunk. If enabled, any user can dial any number on the trunk without restriction.</p> <ul style="list-style-type: none"> • See <i>Toll Restriction</i> on page 549 for more. 	<p>OVRD EXT TL LVL? Y = Toll Restriction overridden N = Toll Restriction not overridden</p>	No
Print SMDR	<p>Use this option to have the SMDR report include or exclude the trunk.</p> <ul style="list-style-type: none"> • See <i>Station Message Detail Recording</i> on page 498 for more. 	<p>PRINT SMDR? Y = Yes (include in SMDR report) N = No (exclude from SMDR report)</p>	Yes
Caller ID	<p>Use this option to enable or disable Caller ID for each trunk. If enabled, Caller ID will occur if also enabled by the other Caller ID programmable options.</p> <ul style="list-style-type: none"> • To enable Daughter Board Caller ID in DS2000, enter 2. • To enable DSP Caller ID, enter 1. • If disabled (by entering 0), Caller ID will never occur. • See <i>Caller ID</i> on page 95 for more. • See <i>Direct Inward Dialing</i> on page 155 for more. • See <i>T1 Trunking</i> on page 530 for more. 	<p>CALLER ID? <u>DS1000</u> 0 = CLID disabled 1 = DSP CLID enabled <u>DS2000</u> 0 = CLID disabled 1 = DSP CLID enabled 2 = Daughter Board CLID enabled 3 = ANI</p>	No
ANI/DNIS (DS2000 Only)	<p>Use this option to specify the type of ANI/DNIS Caller ID data provided by T1 DID trunks. Set this option for compatibility with the incoming ANI/DNIS data provided by the local telco. See <i>ANI/DNIS Support</i> on page 530 for more on the available entries.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Dialing</i> on page 155 for more. • See <i>T1 Trunking</i> on page 530 for more. 	<p>ANI/DNIS? 0=None 1 = ANI 2 = *ANI* 3 = *DNIS* 4 = *ANI*DNIS*</p>	None

1000 - Trunk Programming

1001 - Trunk Port Description

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
ANI Delimiter (DS2000 Only)	For ANI/DNIS format options 2-4 (see 1001-ANIS/DNIS above), use this option to set the type of data delimiter provided by the telco. The delimiter designates the beginning and end of the ANI/DNIS data string. The delimiter can be any character 0-9, # or *. Always set this option for compatibility with the incoming ANI/DNIS data provided by the local telco. <ul style="list-style-type: none"> • See <i>Direct Inward Dialing</i> on page 155 for more. • See <i>T1 Trunking</i> on page 530 for more. 	ANI DELIMITER? 0-9, #, or *	*
Number of ANI Digits (DS2000 Only)	For ANI/DNIS format option 1, use this option to specify the number of digits in the ANI number. This is required for option 1 since delimiters do not mark the beginning and end of the data string. The system must know how many digits of incoming ANI Caller ID data to interpret. <ul style="list-style-type: none"> • See <i>Direct Inward Dialing</i> on page 155 for more. • See <i>T1 Trunking</i> on page 530 for more. 	# OF ANI DIGITS? 1-16	10
Voice Mail Caller ID	Use this option to enable or disable the capability of the telephone system to send Caller ID data to Voice Mail. <ul style="list-style-type: none"> • See <i>Caller ID</i> on page 95 for more. 	VOICE MAIL CLID? Y = Yes (Trunk sends Caller ID to Voice Mail) N = No (Trunk does not send Caller ID to Voice Mail)	Y
Dial Tone Detection	Use this option to enable or disable Dial Tone Detection for the trunk. <ul style="list-style-type: none"> • See <i>Dial Tone Detection</i> on page 153 for more. 	DIALTONE DETECT? Y = Yes (enabled) N = No (disabled)	No
E1 Signaling Type (DS2000 Only)	<u>For E1 trunks only</u> , use this option to specify the E1 Signal Type 0-9. Set this option for compatibility with the connected telco. <ul style="list-style-type: none"> • See <i>T1 Trunking</i> on page 530 for more. 	E1 SIGNAL TYPE 0-9	0
MFC Dialing Type (DS2000 Only)	<u>For E1 trunks only</u> , use this option to specify the MFC Dialing Type. <ul style="list-style-type: none"> • See <i>T1 Trunking</i> on page 530 for more. 	MFC DIALING TYPE? 0 = MFC not used 1 = ITU 2 = Argentina 3 = Brazil 4 = Chile 5 = Columbia 6 = Mexico 7 = Venezuela	0

1000 - Trunk Programming

1001 - Trunk Port Description

Table 37: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Enable MFC GB (DS2000 Only)	For E1 trunks <u>only</u> , use this option to enable or disable the MFC Dialing Group B supervisory signaling. Since not all central offices provide Group B signaling, set this option for compatibility with the connected telco. <ul style="list-style-type: none"> • See <i>T1 Trunking</i> on page 530 for more. 	ENABLE MFC GB Y = Yes (enabled) N = No (disabled)	Yes
Store and Forward (Software version 03.10.08 or higher)	Use this option to enable or disable Store and Forward for every trunk in the Trunk Group the user will access when they dial a trunk access code or press a loop key. If enabled, the system buffers the user-dialed digits and dials them on the trunk when the user has completed dialing. If disabled, manually dialed digits output on the trunk as the user dials them. You should enable store and forward for every trunk in accessed Trunk Group. <ul style="list-style-type: none"> • See <i>Store and Forward</i> on page 119 for more. 	STORE&FORWARD Y = Yes (enabled) N = No (disabled)	No

1000 - Trunk Programming

1001 - Trunk Port Description

Telephone Programming Instructions


1001 - Trunk Port Description (Page 1 of 2) (Entry Range) [Default Setting]																																													
ICM + ##*#* + Password (372000) + HOLD + 1001 + HOLD.																																													
	TRUNK PORT # (Trunk port number 1-64 in DS2000, 1-6 in DS1000) [1]																																												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">TYPE</td> <td>(00, 51=Loop Start DTMF, 52=Loop Start DP, 53=Ground Start DTMF, 54=Ground Start DP, 57=DID DTMF Wink Start, 58=DID DP Wink Start, 59=DID DTMF Immediate Start, 60=DID DP Immediate Start, 61=E&M DTMF Wink Start, 62=E&M DP Wink Start, 63=E&M DTMF Immediate Start, 64=E&M DP Immediate Start). [51] <ul style="list-style-type: none"> • To scroll through the available types: <ul style="list-style-type: none"> - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry. </td> </tr> <tr> <td>EXT</td> <td>(View only) [Trunk 1=101, trunk 2=102, etc.]</td> </tr> <tr> <td>NAME</td> <td>(Name) [No names entered] When entering names, see <i>Keys for Entering Names</i> on page 615.</td> </tr> <tr> <td>TRANSMIT GAIN</td> <td>(0-60) [0]</td> </tr> <tr> <td>RECEIVE GAIN</td> <td>(0-60) [0]</td> </tr> <tr> <td>CLASS OF SERVICE</td> <td>(1-15) [1]</td> </tr> <tr> <td>PBX LINE</td> <td>(9=Yes, 6=No) [No]</td> </tr> <tr> <td>DISABLE FORCE AC</td> <td>(9=Yes, 6=No) [No]</td> </tr> <tr> <td>LOOP LENGTH</td> <td>(1=Short, 2=Long) [2]</td> </tr> <tr> <td>TOLL LEVEL</td> <td>(0-7) [0]</td> </tr> <tr> <td>OVRD EXT TL LVL</td> <td>(9=Yes, 6=No) [No]</td> </tr> <tr> <td>PRINT SMDR</td> <td>(9=Yes, 6=No) [Yes]</td> </tr> <tr> <td>CLID</td> <td>(0=No, 1=DSP, 2=Daughter board, 3=ANI) [None]</td> </tr> <tr> <td>ANI/DNIS</td> <td>(0=No, 1=ANI, 2=*ANI*, 3=*DNIS*, 4=*ANI*DNIS*) [0]</td> </tr> <tr> <td>ANI DELIMITER</td> <td>(0-9, # or *) [*]</td> </tr> <tr> <td># OF ANI DIGITS</td> <td>(1-16) [10]</td> </tr> <tr> <td>VOICE MAIL CLID</td> <td>(9=Yes, 6=No) [Yes]</td> </tr> <tr> <td>DIALTONE DETECT</td> <td>(9=Yes, 6=No) [No]</td> </tr> <tr> <td>E1 SIGNAL TYPE</td> <td>(0-9) [0]</td> </tr> <tr> <td>MFC DIALING TYPE</td> <td>(0=Not used, 1=ITU, 2=Argentina, 3=Brazil, 4=Chile, 5=Columbia, 6=Mexico, 7=Venezuela) [0]</td> </tr> <tr> <td>ENABLE MFC GB</td> <td>(9=Yes, 6=No) [Yes]</td> </tr> <tr> <td>STORE&FORWARD</td> <td>(9=Yes, 6=No) [No]</td> </tr> </table>	TYPE	(00, 51=Loop Start DTMF, 52=Loop Start DP, 53=Ground Start DTMF, 54=Ground Start DP, 57=DID DTMF Wink Start, 58=DID DP Wink Start, 59=DID DTMF Immediate Start, 60=DID DP Immediate Start, 61=E&M DTMF Wink Start, 62=E&M DP Wink Start, 63=E&M DTMF Immediate Start, 64=E&M DP Immediate Start). [51] <ul style="list-style-type: none"> • To scroll through the available types: <ul style="list-style-type: none"> - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry. 	EXT	(View only) [Trunk 1=101, trunk 2=102, etc.]	NAME	(Name) [No names entered] When entering names, see <i>Keys for Entering Names</i> on page 615.	TRANSMIT GAIN	(0-60) [0]	RECEIVE GAIN	(0-60) [0]	CLASS OF SERVICE	(1-15) [1]	PBX LINE	(9=Yes, 6=No) [No]	DISABLE FORCE AC	(9=Yes, 6=No) [No]	LOOP LENGTH	(1=Short, 2=Long) [2]	TOLL LEVEL	(0-7) [0]	OVRD EXT TL LVL	(9=Yes, 6=No) [No]	PRINT SMDR	(9=Yes, 6=No) [Yes]	CLID	(0=No, 1=DSP, 2=Daughter board, 3=ANI) [None]	ANI/DNIS	(0=No, 1=ANI, 2=*ANI*, 3=*DNIS*, 4=*ANI*DNIS*) [0]	ANI DELIMITER	(0-9, # or *) [*]	# OF ANI DIGITS	(1-16) [10]	VOICE MAIL CLID	(9=Yes, 6=No) [Yes]	DIALTONE DETECT	(9=Yes, 6=No) [No]	E1 SIGNAL TYPE	(0-9) [0]	MFC DIALING TYPE	(0=Not used, 1=ITU, 2=Argentina, 3=Brazil, 4=Chile, 5=Columbia, 6=Mexico, 7=Venezuela) [0]	ENABLE MFC GB	(9=Yes, 6=No) [Yes]	STORE&FORWARD	(9=Yes, 6=No) [No]
TYPE	(00, 51=Loop Start DTMF, 52=Loop Start DP, 53=Ground Start DTMF, 54=Ground Start DP, 57=DID DTMF Wink Start, 58=DID DP Wink Start, 59=DID DTMF Immediate Start, 60=DID DP Immediate Start, 61=E&M DTMF Wink Start, 62=E&M DP Wink Start, 63=E&M DTMF Immediate Start, 64=E&M DP Immediate Start). [51] <ul style="list-style-type: none"> • To scroll through the available types: <ul style="list-style-type: none"> - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry. 																																												
EXT	(View only) [Trunk 1=101, trunk 2=102, etc.]																																												
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PRINT SMDR	(9=Yes, 6=No) [Yes]																																												
CLID	(0=No, 1=DSP, 2=Daughter board, 3=ANI) [None]																																												
ANI/DNIS	(0=No, 1=ANI, 2=*ANI*, 3=*DNIS*, 4=*ANI*DNIS*) [0]																																												
ANI DELIMITER	(0-9, # or *) [*]																																												
# OF ANI DIGITS	(1-16) [10]																																												
VOICE MAIL CLID	(9=Yes, 6=No) [Yes]																																												
DIALTONE DETECT	(9=Yes, 6=No) [No]																																												
E1 SIGNAL TYPE	(0-9) [0]																																												
MFC DIALING TYPE	(0=Not used, 1=ITU, 2=Argentina, 3=Brazil, 4=Chile, 5=Columbia, 6=Mexico, 7=Venezuela) [0]																																												
ENABLE MFC GB	(9=Yes, 6=No) [Yes]																																												
STORE&FORWARD	(9=Yes, 6=No) [No]																																												
Press this:	To do this:																																												
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.																																												
CONF	Cancel your entry and back up to the previous prompt level.																																												
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.																																												
LND	Erase the entry to the left of the cursor.																																												

1000 - Trunk Programming

1001 - Trunk Port Description

1001 - Trunk Port Description (Page 2 of 2) (Entry Range) [Default Setting]	
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

Description

 DS1000	<ul style="list-style-type: none">• See <i>Default Setting</i> below for specifics on the initial trunk setup.• Dial 9 is enabled by default.
DS2000	<ul style="list-style-type: none">• See <i>Default Setting</i> below for specifics on the initial trunk setup.• Dial 9 is enabled by default in software version 03.10.08 and higher. It is undefined in prior 03.**.** versions.

Use **Program 1002 - Trunk Groups** to assign trunks (1-64 in DS2000, 1-6 in DS1000) to Trunk Groups (0-8). This program also lets you assign the priority of trunks within each group. When a user seizes a Trunk Group, the system selects the lowest order trunk in the group first. If the lowest order trunk is busy or out of service, the system searches sequentially by order number (e.g., from order 01 to order 02) for the first available trunk.

When entering data, the system provides the following additional entry options. These options make it easier to enter data and help prevent inadvertent entry errors.

Pressing HOLD validates and registers entries.

When you are done entering data for a Trunk Group, you must press **HOLD**. When you press **HOLD**:

- The system compares the Trunk Group you just programmed against all other Trunk Groups. If a trunk exists in more than one group, the system retains it in the last Trunk Group you programmed and deletes it from all other groups. For example, if group 1 has trunks **1 2 3 4**, and you program group 2 with trunks **4 5 6**, the system will automatically change group 1 to trunks **1 2 3**.
- The system checks the Trunk Group you just programmed for duplicate entries. If you have entered a trunk more than once into the group, the system retains the first entry you made. It discards all other duplicate entries. For example, if you enter trunks **1 2 3 1 4**, the system stores **1 2 3 4**. You'll see "**DUPLICATE TRK ERASED**" if the system deletes any duplicate entries.

Pressing CONF cancels program entry.

- While programming a Trunk Group, press **CONF** to exit the group and return to the **TRUNK GROUP** prompt. Any changes you made to the group before pressing **CONF** are not saved.

Pressing CHECK restores previous entries.

- While programming a Trunk Group, press **CHECK** to restore the group to its previously saved data and return to the **ORDR n: TRK NUM** prompt. You might want to do this if you lose track of what you are programming in a group and want to start over.

Pressing CLEAR deletes entries.

- While programming a Trunk Group, press **CLEAR** to erase the entries from the current position to the end of the group. For example, in the default program if you press **CLEAR** at the **ORDER 2:TRK NUM?5** prompt, you'll only retain the **ORDER 1:TRK NUM?6** entry. All other entries for the group are erased.

1000 - Trunk Programming

1002 - Trunk Groups

In DS2000, trunks must be on installed PCBs.

- You can only enter a trunk into a Trunk Group if the PCB for that trunk has been properly installed in **9902 - Slot Assignment**.
- In addition, if you program a trunk into a group and later on use **9902 - Slot Assignment** to remove that trunk's PCB, the system automatically removes the trunk from the group.

Conditions

None

Table 38: Program 1002 - Trunk Groups

Option	Description	Entries	Default
Trunk Group	Use this option to select the Trunk Group you want to program. A trunk can only be in one group. <ul style="list-style-type: none"> • See <i>Loop Keys</i> on page 360 for more. • See <i>Trunk Group Routing</i> on page 566 for more. • See <i>Trunk Groups</i> on page 572 for more. 	TRUNK GROUP? 90-98 for groups 0-8	<u>DS2000</u> Trunks are not assigned to a group. <u>DS1000</u> Trunks 1-6 are in group 90.
Order Number	Use this option to set the priority of the trunk within the group. When a user seizes a Trunk Group, the system selects the lowest priority trunk within the group first. <ul style="list-style-type: none"> • See <i>Trunk Groups</i> on page 572 for more. 	ORDER nn: TRK NUM?nn	<u>DS2000</u> Order 1=Trk 8 Order 2=Trk 7 Order 3=Trk 6 Order 4=Trk 5 Order 5=Trk 4 Order 6=Trk 3 Order 7=Trk 2 Order 8=Trk 1 <u>DS1000</u> Order 1=Trk 6 Order 2=Trk 5 Order 3=Trk 4 Order 4=Trk 3 Order 5=Trk 2 Order 6=Trk 1

1000 - Trunk Programming

1002 - Trunk Groups

Telephone Programming Instructions

1002 - Trunk Groups (Entry Range) [Default Setting]			
ICM + ### + Password (372000) + HOLD + 1002 + HOLD.			
	TRUNK GROUP #	(Trunk Group number 90-98 for groups 0-8) [90]	
	1002:TRUNK GROUP:xx ORDR 1:TRUNK NUM:x	For the Trunk Group selected (e.g., 1), assign the priority (order) of the trunks within the group.	
		Enter trunk number	Enter the number of the trunk you want assigned to the order number displayed. Following are the default assignments (Trunk Group 90): DS2000 Order 1=Trk 8 Order 2=Trk 7 Order 3=Trk 6 Order 4=Trk 5 Order 5=Trk 4 Order 6=Trk 3 Order 7=Trk 2 Order 8=Trk 1 DS1000 Order 1=Trk 6 Order 2=Trk 5 Order 3=Trk 4 Order 4=Trk 3 Order 5=Trk 2 Order 6=Trk 1
Press this:		To do this:	
HOLD	Enter (accept) data you entered and back up one prompt level.		
CONF	Back up one prompt level without changing your entry.		
VOL ▲	Accept the entry you just made and go to the next order number within the same Trunk Group.		
Vol ▼	Accept the entry you just made and go to the previous order number within the same Trunk Group.		
LND	Erase the entry to the left of the cursor.		
CHECK	Restore the previous entry.		
CLEAR	Clear the entry from the display (unless otherwise noted).		

1000 - Trunk Programming

1003 - Trunk Options

Description



DS1000	Available. Trunks 4-6 require the Expansion Board.
DS2000	Available.

Use **Program 1003 - Trunk Options** to program various options for trunks.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Also see *Program 1001 - Trunk Port Description* on page 699.

Conditions

None

Table 39: Program 1003 - Trunk Options (Part 2)

Option	Description	Entries	Default
Call Pickup Group	Use this option to have an incoming call on the trunk ring all the extensions in the assigned pickup group. <ul style="list-style-type: none"> See <i>Group Call Pickup</i> on page 273 for more. 	PICK-UP GROUP? 1-8 0 = Unassigned	0
Direct Termination (Day)	If the trunk is a Direct Inward Line, use this option to set the day termination (answering point). The DIL rings the answering point directly. This option has no effect on other types of trunks. <ul style="list-style-type: none"> See <i>Direct Inward Line</i> on page 170 for more. See <i>Key Ring</i> on page 344 for more. 	DAY TERM? Extension (300-427 in DS2000 or 300-333 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)	Key Ring
Activate Overflow During the Day	Use this option to enable or disable overflow during the day mode. <ul style="list-style-type: none"> See <i>Direct Inward Line</i> on page 170 for more. See <i>Key Ring</i> on page 344 for more. 	DAY OVERFLOW? Y = Day overflow enabled N = Day overflow disabled	N
Day Overflow Destination	Use this option to set the overflow destination for day mode calls (including DILs). <ul style="list-style-type: none"> See <i>Direct Inward Line</i> on page 170 for more. See <i>Key Ring</i> on page 344 for more. 	DAY OVRFLW DEST? Extension (300-427 in DS2000 or 300-333 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)	300

1000 - Trunk Programming

1003 - Trunk Options

Table 39: Program 1003 - Trunk Options (Part 2)

Option	Description	Entries	Default
Direct Termination (Night)	<p>If the trunk is a Direct Inward Line, use this option to set the night termination (answering point). The DIL rings the answering point directly at night. This option has no effect on other types of trunks.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Line</i> on page 170 for more. • See <i>Key Ring</i> on page 344 for more. 	<p>NIGHT TERM? Extension (300-427 in DS2000 or 300-333 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)</p>	Key Ring
Activate Overflow at Night	<p>Use this option to enable or disable overflow for the trunk when the system is in the night mode.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Line</i> on page 170 for more. • See <i>Key Ring</i> on page 344 for more. • See <i>Night Service / Night Ring</i> on page 389 for more. 	<p>NIGHT OVERFLOW? Y = Night overflow enabled N = Night overflow disabled</p>	N
Night Overflow Destination	<p>Use this option to set the overflow destination for Night Mode calls.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Line</i> on page 170 for more. • See <i>Key Ring</i> on page 344 for more. • See <i>Night Service / Night Ring</i> on page 389 for more. 	<p>NT OVRFLW DEST? Extension (300-427 in DS2000 or 300-333 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)</p>	300
Day Ring Type	<p>Use this option to assign a Ring Type for the trunk's Day Ringing. When the trunk rings an extension in the Day Ring mode, it uses the Ring Type specified in this option.</p> <ul style="list-style-type: none"> • See <i>Distinctive Ringing</i> on page 200 for more. 	<p>DAY RING TYPE 1 (Ring Type A) 2 (Ring Type B) 3 (Ring Type C)</p>	1 (Ring Type A)
Night Ring Type	<p>Use this option to assign a Ring Type for the trunk's Night Ringing. When the trunk rings an extension in the Night Ring mode, it uses the Ring Type specified in this option.</p> <ul style="list-style-type: none"> • See <i>Distinctive Ringing</i> on page 200 for more. 	<p>NIGHT RING TYPE 1 (Ring Type A) 2 (Ring Type B) 3 (Ring Type C)</p>	1 (Ring Type A)
Delay Ring Type	<p>Use this option to assign a Ring Type for the trunk's Delay Ringing. When the trunk rings an extension in the Delay Ring mode, it uses the Ring Type specified in this option.</p> <ul style="list-style-type: none"> • See <i>Distinctive Ringing</i> on page 200 for more. 	<p>DELAY RING TYPE 1 (Ring Type A) 2 (Ring Type B) 3 (Ring Type C)</p>	1 (Ring Type A)

1000 - Trunk Programming

1003 - Trunk Options

Table 39: Program 1003 - Trunk Options (Part 2)

Option	Description	Entries	Default
MOH Source	Use this option to assign the Music on Hold music source. <ul style="list-style-type: none"> See <i>Music on Hold</i> on page 381 for more. 	MOH SOURCE? CLEAR = None 1 = External (CPU terminals) 2 = Tone 1 (low pitch) 3 = Tone 2 (high pitch) 4 = ACI port (currently not used)	1
Tandem Trunk	Use this option to enable or disable a trunk's ability to be included in an Unsupervised Conference. <ul style="list-style-type: none"> See <i>Call Forwarding Off Premise</i> on page 75 for more. See <i>Tandem Trunking / Unsupervised Conference</i> on page 538 for more. 	TANDEM TRUNK? Y = Unsupervised Conference enabled N = Unsupervised Conference disabled	N
Answer Table	Use this option to assign an IntraMail Answer Table to the trunk. <ul style="list-style-type: none"> Refer to the <i>IntraMail System Guide</i> for more. 	ANS TABLE 1-8	1
Dial 9 Group (DS2000 Only)	Use this option to specify the Trunk Group (0-8) selected when an incoming (remote) Tie Line callers dials 9 to place an outgoing trunk call. This is the Trunk Group in the local system used by the remote Tie Line caller for placing outgoing trunk calls. <ul style="list-style-type: none"> See <i>Tie Lines</i> on page 542 for more. 	DIAL 9 GROUP 1-8	0
Extension's Operator (DS2000 Only)	Use this option to specify the extension (300-427) reached in the local system when an incoming (remote) Tie Line caller dials 0. <ul style="list-style-type: none"> See <i>Tie Lines</i> on page 542 for more. 	EXT'S OPERATOR 300-427	300

1000 - Trunk Programming

1003 - Trunk Options



Telephone Programming Instructions

1003 - Trunk Options (Entry Range) [Default Setting]	
ICM + ##* + Password (372000) + HOLD + 1003 + HOLD.	
TRUNK PORT #	(Trunk port number 1-64 in DS2000, 1-6 in DS1000) [1]
PICK-UP GROUP	(1-8, 0=Unassigned) [0]
DAY TERM?	(Extension or master number, CLEAR = Key Ring) [Key Ring]
DAY OVERFLOW?	(9=Yes, 6=No) [No]
DAY OVRFLW DEST	(Extension or master number, CLEAR = Key Ring) [300]
NIGHT TERM	(Extension or master number, CLEAR = Key Ring) [Key Ring]
NIGHT OVERFLOW	(9=Yes, 6=No) [No]
NT OVRFLW DEST	(Extension or master number, CLEAR = Key Ring) [300]
DAY RING TYPE	(1=Type A, 2=Type B, 3=Type C) [1]
NIGHT RING TYPE	(1=Type A, 2=Type B, 3=Type C) [1]
DELAY RING TYPE	(1=Type A, 2=Type B, 3=Type C) [1]
MOH SOURCE	(CLEAR=None, 1=External CPU terminals, 2=Tone 1, 3=Tone 2, 4=ACI) [1]
TANDEM TRUNK	(9=Yes, 6=No) [No]
ANS TABLE	(1-8) [1]
DIAL 9 GROUP	(0-8) [0]
EXT'S OPERATOR	(Extension number) [300]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1000 - Trunk Programming

1004 - Line Group Access

Description

 DS1000	Not available.
 DS2000	Available.

Use **1004 - Line Group Access** to enable or disable Trunk Group Access for incoming (remote) Tie Line callers. If enabled for a trunk Group, remote Tie Line callers will be able to use that group in the local system for outgoing trunk calls. You separately enable this option for each of the 9 Trunk Groups (0-8). By default, this option is enabled for each Trunk Group.

Note: The access matrix you set up in **Program 1006 - Trunk Line Access** (page 718) may limit which trunks Line Group Access can use.

Conditions

None

Telephone Programming Instructions

1004-Line Group Access (Entry Range) [Default Setting]			
ICM + ### + Password (372000) + HOLD + 1004 + HOLD.			
	TRUNK PORT?	(Trunk port number 1-64) [1]	
	LINE GROUP?	For the selected trunk, select the Trunk Group you want to program. (90-98) [90]	
	YES or NO	Enable (Y) or disable (N) Line Group Access for the trunk on the Trunk Group selected. (9=Yes, 6=No) [Yes]	
Press this:		To do this:	
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.		
CONF	Cancel your entry and back up to the previous prompt level.		
VOL ▲ or Vol ▼	Scroll through the available trunks.		
LND	Erase the entry to the left of the cursor.		
CHECK	Restore the previous entry.		
CLEAR	Clear the entry from the display (unless otherwise noted).		

1000 - Trunk Programming

1005 - Trunk Caller ID Logging Group

Description



DS1000/2000 Available.

Use **Program 1005 - Trunk Caller ID Logging Group** to assign a trunk to one of the 8 Caller ID Logging Groups. If assigned to a group, any call coming in on the trunk will be logged directly into the group. A trunk can be a member of any or all 8 Caller ID Logging Groups. By default, all trunks are assigned to Caller ID Logging Group 1.

You specify the type of logging for extensions in **1807 - Caller ID Log Type** (page 773).

Conditions

None

Telephone Programming Instructions

1005 - Trunk Caller ID Logging Group (Entry Range) [Default Setting]			
ICM + ##* + Password (372000) + HOLD + 1005 + HOLD.			
	TRUNK PORT	(Trunk port number 1-64 in DS2000, 1-6 in DS1000) [1]	
	CID GROUP 1	(9=Yes, 6=No) [Yes]	
	CID GROUP 2	(9=Yes, 6=No) [No]	
	CID GROUP 3	(9=Yes, 6=No) [No]	
	CID GROUP 4	(9=Yes, 6=No) [No]	
	CID GROUP 5	(9=Yes, 6=No) [No]	
	CID GROUP 6	(9=Yes, 6=No) [No]	
	CID GROUP 7	(9=Yes, 6=No) [No]	
	CID GROUP 8	(9=Yes, 6=No) [No]	
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

1000 - Trunk Programming

1006 - Trunk Line Access

Description



DS1000	Not available.
DS2000	Available.

Use **1006 - Trunk Line Access** to set up a trunk access matrix between each Tie Line trunk in the local system and each outgoing trunk in the local system. For each Tie Line (1-64), you can assign the access type for each of the 64 trunks in the local system. This option further restricts which local trunks an incoming (remote) tie line caller can access for outgoing calls.

By default, each trunk in the local system has full access (3) to every outgoing trunk in the local system.

Conditions

None

Telephone Programming Instructions

1006-Trunk Line Access (Entry Range) [Default Setting]			
ICM + ### + Password (372000) + HOLD + 1006 + HOLD.			
	TRUNK PORT?	Enter the number of the trunk (e.g., 1) in the local system for which you want to configure the outgoing matrix. (Trunk port number 1-64) [1]	
		LINE NUMBER?	For the selected local trunk, enter the number of the remote trunk (e.g., 1) for which you want to configure the outgoing matrix. (Trunk port number 1-64) [1]
		FULL ACCESS	(0=No access, 1=Incoming only, 2=Outgoing only, 3=Full access) [3]
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll through the available trunks.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

1100 - Speed Dial

1101 - System Speed Dial Numbers

Description

 DS1000/2000 Available.

Use **Program 1101 - System Speed Dial Numbers** to enter numbers and names into the System Speed Dial bins. The system has up to 1000 Speed Dial bins, depending on the setting of *Program 0301 - Number of Digits in a System Speed Dial Code* on page 635.

When Number of Digits in a System Speed Dial Code is:	System Speed Dial bin numbers are:	And the total number of System Speed Dial bins is:
2	20-29	10
3	200-299	100
4	2000-2999	1000

Speed Dial numbers can be up to 32 digits long, use 0-9, # and *. In addition, you can enter the following for additional dialing options:

For this option	Press this key:
Pause	MIC
Flash	FLASH

Conditions

None

Table 40: Program 1101 - System Speed Dial Numbers

Option	Description	Entries	Default
System Speed Dial Bin	Use this option to select the System Speed Dial bin you want to program. • See <i>Speed Dial</i> on page 481 for more.	BIN? 20-29 200-299 2000-2999	Not assigned
Line/Group/ICM	Use this option to choose the route System Speed Dial normally selects for the bin you are programming. When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8. • See <i>Speed Dial</i> on page 481 for more.	LINE/GRP/ICM ICM (Intercom), 1-64 (for trunks 1-64 in DS2000), 1-6 (for trunks 1-6 in DS1000), 90-98 (for Trunk Groups 0-8)	ICM
System Speed Dial Number	For the bin selected above, use this option to enter the System Speed Dial number. The number can be up to 16 digits long, using 0-9, # and *. You can also enter special characters (see the table above). Special characters count as a single digit. Note that numbers longer than 16 digits “overflow” into the next adjacent bin. • See <i>Speed Dial</i> on page 481 for more.	NUM? 0-9, #, *, MIC (Pause), DND (Dial Tone Detect), FLASH (Flash) or DIAL (Delay)	Not assigned

1100 - Speed Dial

1101 - System Speed Dial Numbers

Table 40: Program 1101 - System Speed Dial Numbers

Option	Description	Entries	Default
System Speed Dial Name	Use this option to enter the name for the System Speed Dial bin (up to 16 characters). <ul style="list-style-type: none"> • See <i>Speed Dial</i> on page 481 for more. • When entering names, see <i>Programming Names and Text Messages</i> on page 615. 	NA? Not assigned	Not assigned

Telephone Programming Instructions

1101 - System Speed Dial Numbers (Entry Range) [Default Setting]	
ICM + ###* + Password (372000) + HOLD + 1101 + HOLD.	
BIN	(20-29, 200-299, 2000-2999) [200]
LINE/GRP/ICM	(ICM for Intercom, Trunks 1-64 in DS2000, Trunks 1-6 in DS1000, Trunk Groups 90-98) [ICM]
NUM	(16 digits max, using 0-9, # and *. MIC=Pause, DND=Dial Tone Detect, FLASH=Flash, DIAL=Delay) [No entry]
NA	(Name, 16 characters max.) [No names entered] When entering names, see <i>Keys for Entering Names</i> on page 615.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1200 - Verified Account Codes

1201 - Verified Account Codes Table

Description



DS1000	The Verified Account Codes table can contain up to 500 entries.
DS2000	The Verified Account Codes table can contain up to 1000 entries.

Use **Program 1201 - Verified Account Codes Table** to enter codes into the Verified Account Codes table. When **Program 0101: Verify Account Codes** (page 621) is enabled, the system compares the Account Code the user dials to the entry in this table. If the entries match, the system allows the call (provided it is not prevented by an extension's Toll Restriction). If there is no match, the system denies the call. In DS2000, the Verified Account Codes table can contain up to 1000 entries. In DS1000, the Verified Account Codes table can contain up to 500 entries.

A verified Account Code can be from 1 to 10 digits long, using the digits 0-9. You can use the * character as a wild card, which can be entered in any position in the Verified Account Code. A wild card allows the user to dial any digit in that position. For example, the entry 11*1 represents entries 1101, 1111, 1121, etc.

Use the following keys when entering data in the Verified Account Codes Table.

Table 41: Entering Verified Account Code Table Data

Use this key:	When you want to:
Key 0-9	Make table entries
*	Enter a wild card (representing any digit 0-9)
LND	Backspace (erase previous entry)
CLEAR	Erase the entire entry
Volume Up	Go to the next table entry
Volume Down	Go to the previous table entry.

Conditions

Do not enter 911 or 1911 into the Verified Account Codes Table. When a user presses a line key and dials either 911 or 1911, the system immediately bypasses all Toll Restriction and Account Code programming and routes the call.

1200 - Verified Account Codes

1201 - Verified Account Codes Table

Telephone Programming Instructions

1201 - Verified Account Codes Table (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 1201 + HOLD.	
DS2000 ENTRY?(1-1000) DS1000 ENTRY?(1-500)	(Verified Account Code Table entry 1-1000 in DS2000, 1-500 in DS1000) [1]
	(Verified Account Code Number) <ul style="list-style-type: none"> • (Verified Account Code 10 digits max., using 0-9, * as a wild card) [No entry] • You can enter the * wild card character in any position in the Verified Account Code. A wild card allows the user to dial any digit in that position. For example, the entry 11*1 represents entries 1101, 1111, 1121, etc.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1300 - Caller ID Logging

1301 - Caller ID Group Configuration

Description



DS1000/2000 Available.

Use Program **1301 - Caller ID Group Configuration** to determine the total number of Caller ID records (1-99) that can be stored in each Caller ID Group. Each group can contain up to 99 records. In DS2000, the system-wide total is 1000. In DS1000, the system-wide total is 500. By default, group 1 has 99 records and all other groups are blank.

When assigning records, you cannot exceed the total allowed by the system. For example, if you attempt to assign 50 records and there are only 10 left, the system will automatically change your entry to 10.

Conditions

None

Telephone Programming Instructions

1301 - Caller ID Group Configuration (Entry Range) [Default Setting]			
ICM + ##** + Password (372000) + HOLD + 1301 + HOLD.			
	CID GROUP	(1-8) [1]	
	CID CALL RECORDS	(1-99) [Group 1=99, all other groups=9]	
Press this:	To do this:		
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.		
CONF	Cancel your entry and back up to the previous prompt level.		
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.		
LND	Erase the entry to the left of the cursor.		
CHECK	Restore the previous entry.		
CLEAR	Clear the entry from the display (unless otherwise noted).		

1300 - Caller ID Logging

1302 - Caller ID Outbound Line/Group

Description



DS1000/2000 || Available.

Use Program **1302 - Caller ID Outbound Line/Group** to specify the trunk (1-6 in DS1000, 1-64 in DS2000) or Trunk Group (90-98) the system will use when redialing Caller ID calls. **You must make an assignment in this program to enable Caller ID callbacks (return calls).**

Conditions

Programs 1302 through 1305 determine how the system redials Caller ID calls received as 10 digits or less. This is the US standard (i.e., the leading 1 is not received from telco for long distance calls). If the system is in an area where the telco provides more than 10 digits, the digits are redialed as is (with no modification).

Telephone Programming Instructions

1302 - Caller ID Outbound Line/Group (Entry Range) [Default Setting]	
ICM + ##* + Password (372000) + HOLD + 1302 + HOLD.	
LINE/GROUP	(Trunks 1-64 in DS2000, Trunks 1-6 in DS1000, Trunk Groups 90-98, 0=Undefined) [0]
10 DIGIT LOCAL	(9=Yes, 6=No) [No]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1300 - Caller ID Logging

1302 - 10 Digit Local Calls

Description



DS1000/2000 || Available.

Use Program **1302 - 10 Digit Local Calls** to indicate if the system is installed in an area that uses 10 digit local calling. Enable (Y) this option if the system is in a 10-digit local calling area. Disable (N) this option if the system is not in a 10-digit local calling area. The default for this option is N (local calls are 7 digits).

- If enabled, the system will dial all your local Caller ID callbacks as 10-digit calls.
- If disabled, the system will dial all your local Caller ID callbacks as 7-digit calls.

Conditions

Programs 1302 through 1305 determine how the system redials Caller ID calls received as 10 digits or less. This is the US standard (i.e., the leading 1 is not received from telco for long distance calls). If the system is in an area where the telco provides more than 10 digits, the digits are redialed as is (with no modification).

Telephone Programming Instructions

1302 - 10 Digit Local Calls (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 1302 + HOLD.	
LINE/GROUP	(Trunks 1-64 in DS2000, Trunks 1-6 in DS1000, Trunk Groups 90-98, 0=Undefined) [0]
10 DIGIT LOCAL	(9=Yes, 6=No) [No]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1300 - Caller ID Logging

1303 - Home Area (HNPA) Codes

Description



DS1000/2000 Available.

Program **1303 - Home Area (HNPA) Codes** is the home area code table. Use this table to specify your system's home area code (i.e., the area code in which the system is installed). **You must make an assignment in this program so that Caller ID can properly process callbacks (return calls).** By default, there is no home area code entry. Use the following as a guide when editing the entries in this program.

Table 42: Entering 1303 - Home Area (HNPA) Code Data

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 1303 + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
I (4)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
When in the table edit mode (i.e., 1303 + HOLD + E (3))	
A (2)	Allows you to add codes to the table. For example, A + 203 + HOLD adds code 203.
D (3)	Allows you to delete codes from the table. For example, D + 203 + HOLD deletes code 203.
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

- Programs 1302 through 1305 determine how the system redials Caller ID calls received as 10 digits or less. This is the US standard (i.e., the leading 1 is not received from telco for long distance calls). If the system is in an area where the telco provides more than 10 digits, the digits are redialed as is (with no modification).
- **Initializing program 0601 automatically initializes programs 0602 through 0606 and programs 1303 through 1305.** You can individually initialize program 1302, if required.

1300 - Caller ID Logging

1303 - Home Area (HNPA) Codes

Telephone Programming Instructions

1303 - Home Area (HNPA) Codes (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 1303 + HOLD.	
EDIT-E/INIT-I	(E[3]=Edit, I[4]=Init) [no entry]
	If you enter I (4) to initialize this table: • You only need to initialize the table if you need to erase all the existing entries.
	ARE YOU SURE (9=Yes, 6=No) [No entry]
	If you enter E (3) to edit the Toll Restriction table data:
	END OF TABLE Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
	A (2) Dial A (2) to add a code to the table (e.g., A + 203 + HOLD adds code 203).
	D (3) Dial D (3) to delete a code from the table (e.g., D + 203 + HOLD deletes code 203).
	CHECK Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1300 - Caller ID Logging

1304 - Home Area (HNPA) Exception List

Description



DS1000/2000 Available.

Program **1304 - Home Area (HNPA) Exception List** is the home area code exception table. Use this option to identify which (if any) calls within your home area code are toll calls. You can set up the Exception List table as a local table (L) or toll table (T). By default, the HNPA Exception List is a Toll Table with no entries. (This means that the system outdials *all* calls within the home area code without the leading 1.)

- When set up as a **Local Table**, the system identifies the NPA + NXX codes you enter as local codes. All other NPA + NXX combinations within your home area code are flagged as toll calls.
 - If *1302 - 10 Digit Local Calls* is enabled (Y), the system dials all local calls as 10-digit (NPA + NNX + xxxx).
 - If *1302 - 10 Digit Local Calls* is disabled (N), the system strips the NPA and dials all local calls as 7-digit (NXX + xxxx).
- When set up as a **Toll Table**, the system identifies the NPA + NXX codes you enter as toll calls. The system outdials them *with* a leading 1. All other NPA + NXX combinations are considered local codes.
 - If *1302 - 10 Digit Local Calls* is enabled (Y), the system dials all local calls as 10-digit (NPA + NNX + xxxx).
 - If *1302 - 10 Digit Local Calls* is disabled (N), the system strips the NPA and dials all local calls as 7-digit (NXX + xxxx).

Use the following as a guide when editing the entries in this program.

Table 43: Entering 1304 - Home Area (HNPA) Exception List Data (Page 1 of 2)

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 1304 + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
I (4)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
T (8)	Selects the table type: <ul style="list-style-type: none"> • T (8) + L (5) + HOLD makes the Exception List table a local table. • T (8) + T (8) + HOLD makes the Exception List table a local table.
When in the table edit mode (i.e., 1304 + HOLD + E (3))	
A (2)	Allows you to add codes to the table. For example, A + 203999 + HOLD adds code 203999.
D (3)	Allows you to delete codes from the table. For example, D + 203999 + HOLD deletes code 203999.

1300 - Caller ID Logging

1304 - Home Area (HNP) Exception List

Table 43: Entering 1304 - Home Area (HNP) Exception List Data (Page 2 of 2)

Use this key:	When you want to:
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

- Programs 1302 through 1305 determine how the system redials Caller ID calls received as 10 digits or less. This is the US standard (i.e., the leading 1 is not received from telco for long distance calls). If the system is in an area where the telco provides more than 10 digits, the digits are redialed as is (with no modification).
- *Initializing program 0601 automatically initializes programs 0602 through 0606 and programs 1303 through 1305.* You can individually initialize program 1302, if required.

Telephone Programming Instructions

1304 - Home Area (HNP) Exception List (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 1304 + HOLD.	
EDIT-E/TYPE-T/INIT-I	(E[3]=Edit, T[8]=Type, I[4]=Init) [no entry]
	If you enter I (4) to initialize this table: <ul style="list-style-type: none"> • You only need to initialize the table if you need to erase all the existing entries.
ARE YOU SURE	(9=Yes, 6=No) [No entry]
	If you enter T (8) to set the Toll Restriction table type:
LOCAL-L/TOLL-T	(L[5]=Local, T[8]=Toll) [8]
	If you enter E (3) to edit the Toll Restriction table data:
END OF TABLE	Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
A (2)	Dial A (2) to add a code to the table (e.g., A + 203999 + HOLD adds code 203999).
D (3)	Dial D (3) to delete a code from the table (e.g., D + 203999 + HOLD deletes code 203999).
CHECK	Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1300 - Caller ID Logging

1305 - Foreign Area (FNPA) Exception List

Description



DS1000/2000 || Available.

Program **1305 - Foreign Area (FNPA) Exception List** is the foreign area code exception table. If your dialing area has calls in an adjacent area code that are local calls, enter those codes in this table. If the system finds the code in the table, it will dial it as 10-digit (without the leading 1). If the system does not find the code, the system will outdial it as 1 + 10-digit. By default, this table has no entries.

Use the following as a guide when editing the entries in this program.

Table 44: Entering 1305 - Foreign Area (FNPA) Exception List Data

Use this key:	When you want to:
HOLD	Register the entry and move forward through the program (or just move forward if there is no entry).
CONF	Discard the current entry and back up one level.
When the table is selected in programming (i.e., 1305 + HOLD):	
E (3)	Selects the table's edit mode. Use this mode to add or delete entries.
I (4)	Initializes the table. Initialization erases (clears) all entries from the table. <i>It is only necessary to initialize the table if you need to erase all the existing entries.</i>
When in the table edit mode (i.e., 1305 + HOLD + E (3))	
A (2)	Allows you to add codes to the table. For example, A + 212999 + HOLD adds code 212999.
D (3)	Allows you to delete codes from the table. For example, D + 212999 + HOLD deletes code 212999.
CHECK	Displays the ADD-A / DELETE-D help message.
LND	Backspaces over (erases) the previous entry.
CLEAR	Erases the entire entry.

Conditions

- Programs 1302 through 1305 determine how the system redials Caller ID calls received as 10 digits or less. This is the US standard (i.e., the leading 1 is not received from telco for long distance calls). If the system is in an area where the telco provides more than 10 digits, the digits are redialed as is (with no modification).
- *Initializing program 0601 automatically initializes programs 0602 through 0606 and programs 1303 through 1305.* You can individually initialize program 1302, if required.

1300 - Caller ID Logging

1305 - Foreign Area (FNPA) Exception List



Telephone Programming Instructions

1305 - Foreign Area (FNPA) Exception List (Entry Range) [Default Setting]	
ICM + ##** + Password (372000) + HOLD + 1305 + HOLD.	
EDIT-E/INIT-I	(E[3]=Edit, I[4]=Init) [no entry]
	If you enter I (4) to initialize this table: • You only need to initialize the table if you need to erase all the existing entries.
	ARE YOU SURE (9=Yes, 6=No) [No entry]
	If you enter E (3) to edit the Toll Restriction table data:
	END OF TABLE Indicates that you are at the end of the table entries. If no entries display before you see this prompt, the table is empty.
	A (2) Dial A (2) to add a code to the table (e.g., A + 212999 + HOLD adds code 212999).
	D (3) Dial D (3) to delete a code from the table (e.g., D + 212999 + HOLD deletes code 212999).
	CHECK Displays the ADD-A / DELETE-D help message.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1400 - DID Options

1401 - Number of DID Digits

Description

 DS1000	Not available.
 DS2000	Available

Use **1401 - Number of DID Digits** to specify the number of incoming DID digits (1-8) expected from the telco. This entry should match the type of DID service the telco provides. By default, this option is 3 digits.



Conditions

None

Telephone Programming Instructions

1402 - Number of DID Digits (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 1401 + HOLD.	
# OF DID DIGITS	(1-8) [3]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll through the available trunks.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

Description

 DS1000	Not available.
 DS2000	Available

Use **1402-DID Translation Table** to set up the system's DID routing. The DID Translation Table analyzes the DID string received from the telco and routes it to the corresponding extension. You make separate day and night routing entries. The DID Translation Table has 100 entries. Allowable entries are 0-9, with * used as a wild card (representing any digit).

Example: Routing DID Block 400-416

For example, to have DID block 400-416 route to extensions 300-316 during the day and 300 at night:

- For table entry 1, enter 4**.
This entry will route all DID digits in the 400-499 range.
- For the day route, enter 3**.
The system will strip off the leading digit (4), replace it with 3, and route to extensions 300-399.
- For the night route, enter 300.
All calls go to extension 300 when the system is in the night mode.

Default Routing

By default, the system uses the last 2 digits of the DID string to route to extensions 300-399. This happens because:

- The first entry in the table is *** (i.e., wild card representing any received 3-digit string)
- The day routing is 3** (i.e., the last 2 digits of the received string are used to route to the corresponding extension beginning with 3). For example, a DID block of 400-499 routes to extensions 300-399.
- Since the night route is not programmed, night routing follows the day route setting.

Programming Ranges and Exceptions

When programming a range and exceptions into the DID Translation Table, be sure to put the exceptions in the table first. The following tables show both the correct and incorrect method of setting this up.

Ranges and Exceptions – Correct Configuration			
Table Entry	Digits Received	Day Route	Night Route
01	301	303	700
02	302	304	700
03	3**	3**	
<ul style="list-style-type: none"> • Calls to 301 route to 303 in the day and the Automated Attendant at night. • Calls to 302 route to 304 in the day and the Automated Attendant at night. • All other calls in the 3xx range route to their respective extensions. 			

1400 - DID Options

1402 - DID Translation Table

Ranges and Exceptions – Incorrect Configuration			
Table Entry	Digits Received	Day Route	Night Route
01	3**	3**	
02	301	303	700
03	302	304	700
<ul style="list-style-type: none">All calls in the 3xx range route to their respective extensions in the day and at night. The exception routing for 301 and 302 is ignored.			

Note: The number of digits in your DID entry should match the setting of the **1401-Number of DID Digits** option.

Conditions

None

1400 - DID Options

1402 - DID Translation Table

Telephone Programming Instructions

1402-DID Translation Table (Entry Range) [Default Setting]					
ICM + ### + Password (372000) + HOLD + 1402 + HOLD.					
		EDIT-E/INIT-I	(E[3]=Edit, I[4]=Initialize) [no entry]		
		If you enter I (4) to initialize this table:			
		<ul style="list-style-type: none"> • You only need to initialize the table if you need to erase all the existing entries. 			
		ARE YOU SURE	(9=Yes, 6=No) [No entry]		
		If you enter E (3) to edit the table data:			
		E (3)	Edit the DID Translation Table		
		ENTRY?(1-100)	Enter the number of the translation table entry you want to edit. (1-100) [1]		
		xxx	For the table entry selected, enter a string of DID digits you expect to receive from the telco. (8 digits max., 0-9, *=wild card representing any digit) [*** for entry 001, all others blank]		
		DAY:	For the DID string entered, enter the day destination for the call. (8 digits max., 0-9, *=wild card representing any digit) [3** for entry 001, all others blank]		
		NIGHT	For the DID string entered, enter the night destination for the call. (8 digits max., 0-9, *=wild card representing any digit) [3** for entry 001, all others blank]		
Press this:		To do this:			
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.			
CONF		Cancel your entry and back up to the previous prompt level.			
VOL ▲ or Vol ▼		Scroll through the available entries.			
LND		Erase the entry to the left of the cursor.			
CHECK		Restore the previous entry.			
CLEAR		Clear the entry from the display (unless otherwise noted).			

1400 - DID Options

1403 - DID MFC Dialing Category

Description



DS1000	Not available.
DS2000	Available

For E1 trunks only, use **1403 - DID MFC Dialing Category** to set the MFC Dialing Category for each DID table entry. This option is not used in North America. The available options are:

1403-DID MFC Dialing Category Options	
Option	Description
0	Normal
1	Without charge
2	Called Party Release

By default, all table entries use normal MFC dialing (option 0).

Conditions

None

Telephone Programming Instructions

1403 - DID MFC Dialing Category (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 1403 + HOLD.	
ENTRY?	Enter the number of the DID Translation Table (1-100) for which you want to set the dialing category. (1-100) [no entry]
CATEGORY	Enter the dialing category. (0=Normal, 1=Without charge, 2=Called Party Release) [0]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll through the available trunks.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1700 - Key Programming

1701 - Programmable Function Key Assignments

Description



DS1000/2000

- Each system has unique default key assignments.
- Conversation Record to a co-worker's mailbox requires system software version 03.20.07 or higher.

Use **Program 1701 - Programmable Function Key Assignments** to assign the programmable keys on a keyset. The defaults are as follows:

- In DS2000, keys 1-12 are line keys for trunks 1-12 and keys 13-24 are undefined.
- In DS1000, keys 1-6 are line keys for trunks 1-6 and keys 7-24 are undefined.
- For attendants (extension 300 by default)
 - Key 11 is a Night (System Mode System) key.
 - Key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 45: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Undefined	Use this option to designate a key as undefined (no function). <ul style="list-style-type: none"> • See <i>Programmable Function Keys</i> on page 444 for more. 	00	UNDEFINED
Switched Loop Key	Use this option to assign a programmable key as a switched loop key. <ul style="list-style-type: none"> • See <i>Loop Keys</i> on page 360 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	01	SWITCH LOOP (01)
Fixed Loop Key	Use this option to assign a programmable key as a Fixed Loop Key. <ul style="list-style-type: none"> • See <i>Loop Keys</i> on page 360 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	02 + nn (Trunk Group)	FIXED LOOP GRP 90-98 = Trunk Groups 0-8
Line Key	Use this option to assign a programmable key as a line key. <ul style="list-style-type: none"> • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Central Office Calls, Placing</i> on page 119 for more. • See <i>Line Keys</i> on page 356 for more. • See <i>Private Line</i> on page 440 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	03 + nn (trunk number)	LINE 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000

1700 - Key Programming

1701 - Programmable Function Key Assignments

Table 45: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key. <ul style="list-style-type: none"> See <i>Park</i> on page 420 for more. See <i>Programmable Function Keys</i> on page 444 for more. 	04 + nn (Park Orbit 60-69)	PARK ORBIT?n 60-69 = System Park Orbits 60-69
Hotline Key	Use this option to assign a programmable key as a Hotline key. <ul style="list-style-type: none"> See <i>Hotline</i> on page 302 for more. See <i>Programmable Function Keys</i> on page 444 for more. <p>An extension can also have a Hotline key for a trunk (e.g., 101). However, this capability requires that Direct Trunk Access be enabled. See <i>Direct Trunk Access</i> on page 191 for more.</p>	05 + nnn (extension number)	HOTLINEennn Hotline partner's extension number (300-427 in DS2000 or 300-333 in DS1000)
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key. <ul style="list-style-type: none"> See <i>Call Coverage Keys</i> on page 59 for more. See <i>Programmable Function Keys</i> on page 444 for more. 	06 + nnn (extension number)	CALL CVR RING Covered extension number, Ring Group master number, or UCD Group master number
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key. <ul style="list-style-type: none"> See <i>Call Coverage Keys</i> on page 59 for more. See <i>Programmable Function Keys</i> on page 444 for more. 	07 + nnn (extension number)	CALL CVR NO RING Covered extension number, Ring Group master number, or UCD Group master number
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ring Call Coverage Key. <ul style="list-style-type: none"> See <i>Call Coverage Keys</i> on page 59 for more. See <i>Programmable Function Keys</i> on page 444 for more. 	08 + nnn (extension number)	CALL CVR DELAY Covered extension number, Ring Group master number, or UCD Group master number
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediate ring Group Call Pickup key. <ul style="list-style-type: none"> See <i>Group Call Pickup</i> on page 273 for more. See <i>Programmable Function Keys</i> on page 444 for more. 	09 + nn (Pickup Group 01-08)	GRP PCKUP RING 01-08 = pickup groups 1-8
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key. <ul style="list-style-type: none"> See <i>Group Call Pickup</i> on page 273 for more. See <i>Programmable Function Keys</i> on page 444 for more. 	10 + nn (Pickup Group 01-08)	GRP PCKUP NO RING 01-08 = pickup groups 1-8

1700 - Key Programming

1701 - Programmable Function Key Assignments

Table 45: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key. <ul style="list-style-type: none"> • See <i>Group Call Pickup</i> on page 273 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	11 + nn (Pickup Group 01-08)	GRP PCKUP DELAY 01-08 = pickup groups 1-8
Page Zone Key	Use this option to assign a programmable key as a Page Zone key. <ul style="list-style-type: none"> • See <i>Paging</i> on page 409 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	13 + n (Page Zone 1-7, 0 for All Call)	PAGE ZONE 0-7 (Page Zones 1-7 or 0 for All Call Page)
System Speed Dial Key	Use this option to assign a programmable key as a System Speed Dial key. You assign the key to specific System Speed Dial bin. <ul style="list-style-type: none"> • See <i>Programmable Function Keys</i> on page 444 for more. • See <i>Speed Dial</i> on page 481 for more. 	14 + nnn (System Speed Dial bin normally 200-299)	SYS SPDL BIN
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin. <ul style="list-style-type: none"> • See <i>Programmable Function Keys</i> on page 444 for more. • See <i>Speed Dial</i> on page 481 for more. 	15 + nnn (701-720)	PERS SPDL BIN
Call Timer Key	Use this option to assign a programmable key as a Call Timer key. There are two types of timer key: manual and automatic. <ul style="list-style-type: none"> • See <i>Call Timer</i> on page 85 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	16 + n (1 = Manual Call Timer, 2 = Automatic Call Timer)	CALL TIMER
Voice Mail Record Key	Use this option to assign a programmable key as a Voice Mail Record key. <ul style="list-style-type: none"> • See <i>Programmable Function Keys</i> on page 444 for more. • See <i>Voice Mail</i> on page 580 for more. 	17 + nnn (extension number or valid Subscriber Mailbox)	RECORD

1700 - Key Programming

1701 - Programmable Function Key Assignments

Table 45: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Night Key	<p>Use this option to assign a programmable key as a Night Key. There are two options: <i>System Mode System</i> key and <i>System Mode UCD Master</i> key. The System Mode System key puts all Key Ring trunks and trunks terminated to Ring Group master numbers in the night mode. The System Mode UCD Master key puts all trunks terminated to UCD Group master numbers in the night mode.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Line</i> on page 170 for more. • See <i>Extension Hunting</i> on page 239 for more. • See <i>Night Service / Night Ring</i> on page 389 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	<p>18 + CLEAR (System Mode System key) 18 + UCD Master Number (System Mode UCD Master key)</p>	SYS MODE
Data Key	<ul style="list-style-type: none"> • This option is currently not used. 	19 + nnn (extension number)	DATA
Split Key	<p>Use this option to assign a programmable key as a Split key.</p> <ul style="list-style-type: none"> • See <i>Programmable Function Keys</i> on page 444 for more. • See <i>Split (Alternate)</i> on page 493 for more. 	20	SPLIT
ICM Directory Key	<p>Use this option to assign a programmable key as an Intercom Directory Dialing key.</p> <ul style="list-style-type: none"> • See <i>Directory Dialing</i> on page 195 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	21	ICM DIR
ACD Log On Key	<ul style="list-style-type: none"> • This option is currently not used. 	22	ACD LOG
Reverse Voice Over Key	<p>Use this option to assign a programmable key as a Reverse Voice Over key.</p> <ul style="list-style-type: none"> • See <i>Programmable Function Keys</i> on page 444 for more. • See <i>Reverse Voice Over</i> on page 459 for more. 	23 + nnn (extension number)	REV VOICE OVER
Message Center Key	<p>Use this option to assign a programmable key as a Message Center key.</p> <ul style="list-style-type: none"> • See <i>Programmable Function Keys</i> on page 444 for more. • See <i>Voice Mail</i> on page 580 for more. 	<p>24 + nnn (extension number) Note that the extension number does not have to be an installed extension.</p>	<p>MESSAGE CTR 300-427 (extension numbers 300-427) in DS2000, 300-333 (extension numbers 300-333) in DS1000</p>

1700 - Key Programming

1701 - Programmable Function Key Assignments

Table 45: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Save Key	Use this option to assign a programmable key as a Save Number Dialed key. <ul style="list-style-type: none">• See <i>Programmable Function Keys</i> on page 444 for more.• See <i>Save Number Dialed</i> on page 468 for more.	25	SAVE
Account Code Key	Use this option to assign a programmable key as an Account Code key. <ul style="list-style-type: none">• See <i>Account Codes</i> on page 24 for more.• See <i>Programmable Function Keys</i> on page 444 for more.	26	ACCT CODE
Call Forwarding	Use this option to assign a programmable key as a Call Forwarding key. <ul style="list-style-type: none">• See <i>Call Forwarding</i> on page 63 for more.	27	CALL FORWARD
Headset Key	Use this option to assign a programmable key as a Headset key. <ul style="list-style-type: none">• See <i>Headset Compatibility</i> on page 291 for more.	28	HEADSET

1700 - Key Programming

1701 - Programmable Function Key Assignments

Telephone Programming Instructions

1701 - Programmable Function Key Assignments (Entry Range) [Default Setting]			
ICM + ##** + Password (372000) + HOLD + 1701 + HOLD.			
	EXTENSION #	(Any valid extension number) [300]	
		KEY NUMBER	(1-24) [1]
		(Assignment + Data)	<p>(The entries are as follows:)</p> <ul style="list-style-type: none"> 00 = Undefined 01 = Switched Loop key 02 + 90-98 = Fixed Loop key 03 + 1-64 in DS2000 or 1-6 in DS1000 = Line key 04 + 60-69 = Park Orbit key 05 + Extension = Hotline key 06 + Extension = Call Coverage Immediate Ring key 07 + Extension = Call Coverage No Ring key 08 + Extension = Call Coverage Delay Ring key 09 + 01-08 = Group Pickup Immediate Ring key 10 + 01-08 = Group Pickup No Ring key 11 + 01-08 = Group Pickup Delay Ring key 13 + 0-7 = Page Zone key 14 + System bin number = System Speed Dial key 15 + Personal bin number = Personal Speed Dial key 16 + 1 = Manual Call Timer key 16 + 2 = Automatic Call Timer key 17 + Extension = Voice Mail Record key 18 + CLEAR = System Mode System (night) key 18 + UCD Master Number = System Mode UCD Master key 20 = Split key 21 = ICM Directory key 23 + Extension number = Reverse Voice Over key 24 + Extension number = Message Center key 25 = Save key 26 = Account Code key 27 = Call Forwarding key 28 = Headset key <p>[The defaults are as follows:]</p> <ul style="list-style-type: none"> • In DS2000, keys 1-12 are line keys for trunks 1-12 and keys 13-24 are undefined. • In DS1000, keys 1-6 are line keys for trunks 1-6 and keys 7-24 are undefined. • For attendants (extension 300 by default) <ul style="list-style-type: none"> - Key 11 is a Night (System Mode System) key. - Key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key. • To scroll through the available types: <ul style="list-style-type: none"> - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry.
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

1700 - Key Programming

1702 - Personal Speed Dial

Description



DS1000/2000 Available.

Use **Program 1702 - Personal Speed Dial** to program an extension's Personal Speed Dial bins (1-20). Extension users can also program their Personal Speed Dial bins from their own telephone.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Personal Speed Dial numbers can be up to x?x? digits long, use 0-9, # and *. In addition, you can enter the following for additional dialing options:

For this option		Or use this telephone programming option:
Pause		MIC
Flash		FLASH

Conditions

None

Table 46: Program 1702 - Personal Speed Dial

Option	Description	Entries	Default
Personal Speed Dial Bin	Use this option to select the Personal Speed Dial bin you want to program. <ul style="list-style-type: none"> See <i>Speed Dial</i> on page 481 for more. See <i>Call Forwarding Off Premise</i> on page 75 for more. 	BIN? 0-19	Not assigned
Personal Speed Dial Number	For the bin selected above, use this option to enter the Personal Speed Dial number. The number can be up to x?x? digits long, using 0-9, # and *. You can also enter special characters (see the table above). Special characters count as a single digit. <ul style="list-style-type: none"> See <i>Speed Dial</i> on page 481 for more. See <i>Call Forwarding Off Premise</i> on page 75 for more. 	NUM? Not assigned	Not assigned
Personal Speed Dial Name	Use this option to enter the name for the Personal Speed Dial bin (up to 16 characters). <ul style="list-style-type: none"> See <i>Speed Dial</i> on page 481 for more. When entering names, see <i>Programming Names and Text Messages</i> on page 615. See <i>Call Forwarding Off Premise</i> on page 75 for more. 	NA? Not assigned	Not assigned

1700 - Key Programming

1702 - Personal Speed Dial

Telephone Programming Instructions

1702 - Personal Speed Dial Numbers (Entry Range) [Default Setting]				
ICM + ###* + Password (372000) + HOLD + 1702 + HOLD.				
	EXTENSION	(Any valid extension number) [300]		
	BIN	(701-720) [701]		
	LINE/GRP/ICM	(ICM for Intercom, Trunks 1-64 in DS2000, Trunks 1-6 in DS1000, Trunk Groups 90-98) [ICM]		
	NUM	(16 digits max, using 0-9, # and *. MIC=Pause, DND=Dial Tone Detect, FLASH=Flash, DIAL=Delay) [No entry]		
	NA	(Name, 16 characters max.) [No names entered] When entering names, see <i>Keys for Entering Names</i> on page 615.		
Press this:		To do this:		
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.		
CONF		Cancel your entry and back up to the previous prompt level.		
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.		
LND		Erase the entry to the left of the cursor.		
CHECK		Restore the previous entry.		
CLEAR		Clear the entry from the display (unless otherwise noted).		

1700 - Key Programming

1703 - DSS Key Assignment

Description



DS1000/2000 Available.

Use **Program 1703 - DSS Key Assignment** to program an extension's DSS keys. Programmable Function Keys automatically become DSS keys when the user press **ICM**. While in the DSS mode, the extension has one button Intercom access and a Busy Lamp Field for the assigned co-worker. By default, BLF keys are undefined.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 47: Program 1703 - DSS Key Assignment

Option	Description	Entries	Default
Key Number	Use this option to select the key you want to program. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS)</i> on page 177 for more. 	KEY? 1-24	Not assigned
BLF Extension Assignment	Use this option to assign an extension to the BLF key. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS)</i> on page 177 for more. 	BLF EXT NUM? 300-427 in DS2000 or 300-333 in DS1000	Not assigned

Telephone Programming Instructions

1703 - DSS Key Assignment (Entry Range) [Default Setting]			
ICM + ### + Password (372000) + HOLD + 1703 + HOLD.			
	EXTENSION #	(Any valid extension number) [300]	
	KEY NUMBER	(1-24) [1]	
	BLF EXT NUM	(Any valid extension number, CLEAR=Undefined) [Undefined]	
Press this:	To do this:		
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.		
CONF	Cancel your entry and back up to the previous prompt level.		
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.		
LND	Erase the entry to the left of the cursor.		
CHECK	Restore the previous entry.		
CLEAR	Clear the entry from the display (unless otherwise noted).		

1700 - Key Programming

1704 - DSS Console Key Assignment

Description



DS1000/2000

- Each system has unique default assignments.
- Conversation Record to a co-worker's mailbox requires system software version 03.20.07 or higher.

Use **Program 1704 - DSS Console Key Assignment** to assign the keys for the system's DSS Consoles. There are two types of DSS Consoles: 24-button and 110 button. For default assignments, refer to the following tables.

Default Setting

DS2000 DSS Console Default Assignments	
These keys:	Have this function:
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-96	Hotlines to extensions 300-395
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night (System Mode System) key

DS1000 DSS Console Default Assignments	
These keys:	Have this function:
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-34	Hotlines to extensions 300-333
35-96	Undefined
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night (System Mode System) key

1700 - Key Programming

1704 - DSS Console Key Assignment

Conditions

None.

Table 48: Program 1704 - DSS Console Key Assignment

Option	Description	Key Code	Entry
Undefined	Use this option to designate a key as undefined (no function). <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	00	UNDEFINED (00)
Line Key	Use this option to assign a programmable key as a line key. <ul style="list-style-type: none"> See <i>Central Office Calls, Answering</i> on page 113 for more. See <i>Central Office Calls, Placing</i> on page 119 for more. See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	03 + nn (trunk number)	LINE?nn 1-64 (for trunks 1-64) in DS2000, 1-6 in DS1000
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Park</i> on page 420 for more. 	04 + n (Park Orbit 60-69)	PARK ORBIT?n 60-69 = System Park Orbits 60-69
Hotline Key	Use this option to assign a programmable key as a Hotline key. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Hotline</i> on page 302 for more. <p>A DSS Console can also have a Hotline key for a trunk (e.g., 101). However, this capability requires that Direct Trunk Access be enabled for the extension. See <i>Direct Trunk Access</i> on page 191 for more.</p> <p>A keyset user with a DSS Console can use the #HL user-programmable procedure to change the Hotline assignments on their console.</p>	05 + nnn (extension number)	HOTLINE?nnn Hotline partner's extension number (300-427 in DS2000 or 300-333 in DS1000)
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key. <ul style="list-style-type: none"> See <i>Call Coverage Keys</i> on page 59 for more. See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	06 + nnn (extension number)	CALL CVR RING Covered extension number, Ring Group master number, or UCD Group master number
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key. <ul style="list-style-type: none"> See <i>Call Coverage Keys</i> on page 59 for more. See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	07 + nnn (extension number)	CALL CVR NO RING Covered extension number, Ring Group master number, or UCD Group master number

1700 - Key Programming

1704 - DSS Console Key Assignment

Table 48: Program 1704 - DSS Console Key Assignment

Option	Description	Key Code	Entry
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ringing Call Coverage Key. <ul style="list-style-type: none"> See <i>Call Coverage Keys</i> on page 59 for more. See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	08 + nnn (extension number)	CALL CVR DELAY Covered extension number, Ring Group master number, or UCD Group master number
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediately ringing Group Call Pickup key. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Group Call Pickup</i> on page 273 for more. 	09 + nn (Pickup Group 01-08)	GRP PKUP RING 01-16 = pickup groups 1-16
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Group Call Pickup</i> on page 273 for more. 	10 + nn (Pickup Group 01-08)	GRP PKUP NO RING 01-16 = pickup groups 1-16
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Group Call Pickup</i> on page 273 for more. 	11 + nn (Pickup Group 01-08)	GRP PKUP DELAY 01-16 = pickup groups 1-16
Page Zone Key	Use this option to assign a programmable key as a Page Zone key. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Paging</i> on page 409 for more. 	13 + n (Page Zone 1-7, 0 for All Call)	PAGE ZONE? 0-7 (Page Zones 1-7 or 0 for All Call Page)
System Speed Dial Key	Use this option to assign a programmable key as a System Speed Dial key. You assign the key to specific System Speed Dial bin. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Speed Dial</i> on page 481 for more. 	14 + nnn (System Speed Dial bin, normally 200-299)	SYS SPDL BIN?
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin. The DSS Console shares Personal Speed Dial bins with the extension to which it is attached. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. See <i>Speed Dial</i> on page 481 for more. 	15 + nnn (701-720)	PERS SPDL BIN?

1700 - Key Programming

1704 - DSS Console Key Assignment

Table 48: Program 1704 - DSS Console Key Assignment

Option	Description	Key Code	Entry
Voice Mail Record Key	<p>Use this option to assign a programmable key as a Voice Mail Record key.</p> <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. • See <i>Voice Mail</i> on page 580 for more. 	17 + nnn (extension number or valid Subscriber Mailbox)	RECORD?
Night Key	<p>Use this option to assign a DSS Console key as a Night Key. There are two options: <i>System Mode System</i> key and <i>System Mode UCD Master</i> key. The System Mode System key puts all Key Ring trunks and trunks terminated to Ring Group master numbers in the night mode. The System Mode UCD Master key puts all trunks terminated to UCD Group master numbers in the night mode.</p> <ul style="list-style-type: none"> • See <i>Direct Inward Line</i> on page 170 for more. • See <i>Extension Hunting</i> on page 239 for more. • See <i>Night Service / Night Ring</i> on page 389 for more. • See <i>Programmable Function Keys</i> on page 444 for more. 	<p>18 + CLEAR (System Mode System key)</p> <p>18 + UCD Master Number (System Mode UCD Master key)</p>	SYS MODE?
Data Key	<ul style="list-style-type: none"> • This option is currently not used. 	19 + nnn (extension number)	DATA?
Split Key	<p>Use this option to assign a programmable key as a Split key.</p> <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. • See <i>Split (Alternate)</i> on page 493 for more. 	20	SPLIT
ICM Directory Key	<p>Use this option to assign a programmable key as an Intercom Directory Dialing key.</p> <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. • See <i>Directory Dialing</i> on page 195 for more. 	21	ICM DIR
ACD Log On Key	<ul style="list-style-type: none"> • This option is currently not used. 	22	ACD LOG
Reverse Voice Over Key	<p>Use this option to assign a programmable key as a Reverse Voice Over key.</p> <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. • See <i>Reverse Voice Over</i> on page 459 for more. 	23 + nnn (extension number)	REV VOICE OVER

1700 - Key Programming

1704 - DSS Console Key Assignment

Table 48: Program 1704 - DSS Console Key Assignment

Option	Description	Key Code	Entry
Message Center Key	Use this option to assign a programmable key as a Message Center key. <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. • See <i>Voice Mail</i> on page 580 for more. 	24 + nnn (extension number) Note that the extension number does not have to be an installed extension.	MESSAGE CTR 300-427 (extension numbers 300-427) in DS2000, 300-333 (extension numbers 300-333) in DS1000
Save Key	Use this option to assign a programmable key as a Save Number Dialed key. <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. • See <i>Save Number Dialed</i> on page 468 for more. 	25	SAVE
Account Code Key	Use this option to assign a programmable key as an Account Code key. <ul style="list-style-type: none"> • See <i>Account Codes</i> on page 24 for more. • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	26	ACCT CODE
Call Forwarding	Use this option to assign a programmable key as a Call Forwarding key. <ul style="list-style-type: none"> • See <i>Call Forwarding</i> on page 63 for more. 	27	CALL FORWARD
Headset Key	Use this option to assign a programmable key as a Headset key. <ul style="list-style-type: none"> • See <i>Headset Compatibility</i> on page 291 for more. 	28	HEADSET

1700 - Key Programming

1704 - DSS Console Key Assignment

Telephone Programming Instructions

1704 - DSS Console Key Assignments (Entry Range) [Default Setting]			
ICM + ##*#* + Password (372000) + HOLD + 1704 + HOLD.			
	DSS BLOCK NUM	(1-4) [1]	
		DSS KEY	(1-110) [1]
		(Assignment + Data)	<p>(The entries are as follows:)</p> <ul style="list-style-type: none"> 00 = Undefined 03 + 1-64 in DS2000 or 1-6 in DS1000 = Line key 04 + 60-69 = Park Orbit key 05 + Extension = Hotline key 06 + Extension = Call Coverage Immediate Ring key 07 + Extension = Call Coverage No Ring key 08 + Extension = Call Coverage Delay Ring key 09 + 01-08 = Group Pickup Immediate Ring key 10 + 01-08 = Group Pickup No Ring key 11 + 01-08 = Group Pickup Delay Ring key 13 + 0-7 = Page Zone key 14 + System bin number = System Speed Dial key 15 + Personal bin number = Personal Speed Dial key 17 + Extension = Voice Mail Record key 18 + CLEAR = System Mode System (night) key 18 + UCD Master Number = System Mode UCD Master key 20 = Split key 21 = ICM Directory key 23 + Extension number = Reverse Voice Over key 24 + Extension number = Message Center key 25 = Save key 26 = Account Code key 27 = Call Forwarding key 28 = Headset key <p>[For default settings, see <i>Default Setting</i> on page 746.]</p> <ul style="list-style-type: none"> • To scroll through the available types: <ul style="list-style-type: none"> - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry.
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

1700 - Key Programming

1705 - Soft Key Configuration

Description



DS1000/2000

Requires software version 03.20.07 or higher.

Use **Program 1705 - Soft Key Configuration** to customize the Super Display Telephone idle menu soft keys. You can tailor the idle mode display to meet the needs of each Super Display Telephone user. The first chart below shows the default idle menu soft key assignments. The second chart shows all the available idle mode soft keys, their definitions, and the related programming codes.

Super Display Telephone Default Idle Menu Soft Key Assignments			
Key	Display	Display	Key
1	DIRECTORY	(BLANK)	7
2	PROGRAM	(BLANK)	8
3	V-MAIL --	(BLANK)	9
4	CALLS --	SP DIAL 1	10
5	PAGE	SP DIAL 2	11
6	(BLANK)	(BLANK)	12

Super Display Telephone Idle Menu Soft Key Options		
Entry	Display	Description
00	UNDEFINED	The key has no function and the idle menu display is blank.
01	DIRECTORY	Press to access additional soft keys for Intercom, System Speed Dial, and Personal Speed Dial Directory Dialing.
02	INTERCOM	Press to directly access Intercom Directory Dialing.
03	PERSONAL	Press to directly access Personal Speed Dial Directory Dialing.
04	COMPANY	Press to directly access System Speed Dial Directory Dialing.
05	PROGRAM	Press to program the following: <ul style="list-style-type: none"> • Call Forwarding • Call Screening • Distinctive Ringing • Handsfree Reply • Intercom Voice Announce and Forced Intercom Ringing • Language Selection • Name Programming • Speed Dial • Volume for Ringing, Off-Hook Ringing, and Page
06	V-MAIL	Press to call your Voice Mail mailbox. This soft key also shows the number of new messages in your mailbox.
07	CALLS	Press to review your Caller ID log. This soft key also shows the number of new calls you have not yet reviewed.
08	PAGE	Press to initiate a Page announcement.

1700 - Key Programming

1705 - Soft Key Configuration

Super Display Telephone Idle Menu Soft Key Options		
Entry	Display	Description
09	SP DIAL 1	Press to access Personal Speed Dial bins 701-710. The display shows the Speed Dial numbers (or names - if programmed).
10	SP DIAL 2	Press to access Personal Speed Dial bins 711-720. The display shows the Speed Dial number (or name - if programmed).
11-30	PERS SPDL BIN 1-20	Press to access the associated Personal Speed Dial bin (701-720). The display shows the Speed Dial number (or name - if programmed).

Conditions

None

Telephone Programming Instructions

1705 - Soft Key Configuration (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 1705 + HOLD.	
EXTENSION	(Any valid extension number) [300]
KEY NUMBER?	(1-12) [1]
	<p>Key data (The following options are available:)</p> <ul style="list-style-type: none"> 00=UNDEFINED 01=DIRECTORY 02=INTERCOM 03=PERSONAL 04=COMPANY 05=PROGRAM 06=V-MAIL 07=CALLS 08=PAGE 09=SP DIAL 1 10=SP DIAL 2 11-30=Personal bins 1-20 <p>[See the chart on the previous page for default assignments]</p>
Press this:	To do this:
When entering key data, your entry is automatically accepted after you enter the key code.	
VOL ▲ or Vol ▼	(Key selection) Scroll to the soft key you want to program. (Key data entry) Saves the key data and goes to the next (or previous) entry.
HOLD	(Key selection) After scrolling to the soft number key you want to program, press HOLD to enter key data. (Key data entry) When scrolling through available entries, press HOLD to accept the displayed entry.
CONF	Back up to the previous prompt level. Pressing CONF <i>does not</i> cancel your entry.
ICM + HOLD + VOL ▲ or Vol ▼	Scroll through the available entries (instead of entering a code). ICM flashes fast while scrolling.
CLEAR	Make the entry undefined (the same as entering 00).

1800 - Extension Options

1801 - Extension Port Description

Description



DS1000/2000 Available.

Use **Program 1801 - Extension Port Description** to set up various options for extensions. Also see *Program 1802 - Extension Options (Part 1)* on page 758 and *Program 1807 - Extension Options (Part 2)* on page 771. The system provides Automatic Telephone Type Detection. This means that digital station ports (300-315 in DS1000, on installed PCBs in DS2000) *automatically* detect the type of connect device when the keyset, 2-OPX Module (both ports) or Digital Door Box is plugged in. It is not necessary to individually set circuit types in *1801 - Extension Circuit Type*.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 49: Program 1801 - Extension Options (Part 1)

Option	Description	Entries	Default
Extension Circuit Type	Use this option to assign circuit type to station devices. In the column at right, the numbers in square brackets [] indicate how many ports the device requires. <ul style="list-style-type: none"> • See <i>Door Box</i> on page 226 for more. • See <i>Initial Startup Programming</i> on page 9 for more. • See <i>Off-Premise Extensions / On-Premise SLT Extensions</i> on page 399 for more. • See <i>Station Instruments</i> on page 495 for more. 	PTTYP? 00 = Uninstalled [1] 01 = 22-Button Standard [1] 02 = 22-Button Display [1] 06 = 34-Button Display [1] 09 = 34-Button Super Display [1] 10 = Door Box [1] 15 = Analog station [1] 21 = 2OPX [2]	02 (22-Button Display)
Extension Numbering	This option shows the extension number assigned to the station port. This option is view only — you cannot edit this entry.	EXT: View only	View only
Extension Name	Use this option to assign a name to the extension port. <ul style="list-style-type: none"> • Refer to <i>Table 16: Keys for Entering Names</i> on page 615 when entering names. • See <i>Names for Extensions and Trunks</i> on page 384 for more. 	NAME:	STATION nn
DSS Type	Use this option to specify the type of DSS Console plugged into the telephone (1 = 24-button, 2 = 110-button, 0 = unassigned). You cannot install more than 4 DSS Consoles. <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	DSS TYP? 0 = Uninstalled 1 = 24-Button 2 = 110 Button	300 = 1 <u>DS2000</u> 301-427 = 0 <u>DS1000</u> 301-333 = 0

1800 - Extension Options

1801 - Extension Port Description

Table 49: Program 1801 - Extension Options (Part 1)

Option	Description	Entries	Default
DSS Block Number	Use this option to assign a DSS block to the console. <ul style="list-style-type: none"> See <i>Direct Station Selection (DSS) Console</i> on page 180 for more. 	DSS BLOCK NUM? 01-04	01
Door Chime	Use this option to assign a chime pattern to a Door Box. In DS2000, this option is only available when Extension Circuit Type above is 10 (Door Box). In DS1000, This option is available to both Digital Door Boxes (circuit type 10) and Analog Door Boxes (extensions 324 and 325). <ul style="list-style-type: none"> See <i>Door Box</i> on page 226 for more. 	DOOR CHIME? 0 = Normal Ring Group ringing 1 = Low pitch chime pattern 2 = Mid range pitch chime pattern 3 = High pitch chime pattern	None (0)
Relay Owner	<u>DS2000</u> For the Door Box extension, use this option to assign the relay on the CPRU PCB to the Door Box. This option is only available when Extension Circuit Type above is 10 (Door Box).	RELAY OWNER? 0 = CPRU relay <i>not</i> assigned to Door Box 1 = CPRU relay assigned to Door Box	None (0)
	<u>DS1000</u> For the Analog Door Box extension (324 or 325), use this option to assign the DOOR1 or DOOR2 relays to the Door Box. Normally, you assign the DOOR1 relays to Analog Door Box 324 and DOOR2 relays to Analog Door Box 325. <ul style="list-style-type: none"> See <i>Door Box</i> on page 226 for more. 	RELAY OWNER? 0 = Relay not assigned 1 = Relay assigned to DOOR1 2 = Relay assigned to DOOR2	None (0)
Extension Class of Service Assignment	Use this option to assign the extension's Class of Service. <ul style="list-style-type: none"> See <i>Class of Service</i> on page 133 for more. 	CLASS OF SERVICE? 1-15	Attendant=01 All other extensions=02.
Extension Toll Level Day	Use this option to assign an extension's Toll Level during the day mode. <ul style="list-style-type: none"> See <i>Toll Restriction</i> on page 549 for more. 	STA TOLL LVL DAY? 1-7, 0 = No restriction	00
Extension Toll Level Night	Use this option to assign an extension's Toll Level during the night mode. <ul style="list-style-type: none"> See <i>Toll Restriction</i> on page 549 for more. 	STA TOLL LVL NITE? 1-7, 0 = No restriction	00
Access Level	Use this option to set an extension's access level for the User Programmable Features. Access level 5 has the most capability. Access level 0 has the least capability. <ul style="list-style-type: none"> See <i>User Programmable Features</i> on page 577 for more. 	ACCESS LVL? 0-5	Extension 300 = 5 All others = 3

1800 - Extension Options

1801 - Extension Port Description

Table 49: Program 1801 - Extension Options (Part 1)

Option	Description	Entries	Default
DID Station Intercept Destination (DS2000 Only)	Use this option to set the extension's DID intercept destination. When DID Overflow occurs, the incoming DID call routes to the destination specified in this option. <ul style="list-style-type: none"> See <i>Direct Inward Dialing</i> on page 155 for more. 	OVRFLW EXT? - Extension (300-427) - UCD master number -Voice Mail master number (to route to the extension's mailbox) - Ring Group master number	300
DID Station Intercept (DS2000 Only)	Use this option to set the extension's DID Station Intercept mode. Intercept can occur when the extension is busy, in Do Not Disturb, or unanswered. <ul style="list-style-type: none"> See <i>Direct Inward Dialing</i> on page 155 for more. 	DID OVRFLW B-R-D? 0 = No Intercept 1 = Busy/DND Intercept 2=Ring No Answer Intercept 3 = Busy/DND and Ring No Answer Intercept	0

1800 - Extension Options

1801 - Extension Port Description

Telephone Programming Instructions

1801 - Extension Port Description (Entry Range) [Default Setting]							
ICM + ##** + Password (372000) + HOLD + 1801 + HOLD.							
	EXTENSION # (Any valid extension number) [300]						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">PT TYP</td> <td> (The following circuit type options are available: 00=uninstalled 01=22-Button Standard 02=22-Button Display 06=34-Button Display 09=34-Button Super Display 10=Door Box 15=Analog Station 21=2-OPX Module) </td> </tr> <tr> <td></td> <td> [By default, digital station ports automatically detect the type of connected device when the keyset, 2-OPX Module or Digital Door Box is plugged in. If no device is connected, the default setting is circuit type 02.] </td> </tr> <tr> <td></td> <td> <ul style="list-style-type: none"> • To scroll through the available types: - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry. </td> </tr> </table>	PT TYP	(The following circuit type options are available: 00=uninstalled 01=22-Button Standard 02=22-Button Display 06=34-Button Display 09=34-Button Super Display 10=Door Box 15=Analog Station 21=2-OPX Module)		[By default, digital station ports automatically detect the type of connected device when the keyset, 2-OPX Module or Digital Door Box is plugged in. If no device is connected, the default setting is circuit type 02.]		<ul style="list-style-type: none"> • To scroll through the available types: - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry.
PT TYP	(The following circuit type options are available: 00=uninstalled 01=22-Button Standard 02=22-Button Display 06=34-Button Display 09=34-Button Super Display 10=Door Box 15=Analog Station 21=2-OPX Module)						
	[By default, digital station ports automatically detect the type of connected device when the keyset, 2-OPX Module or Digital Door Box is plugged in. If no device is connected, the default setting is circuit type 02.]						
	<ul style="list-style-type: none"> • To scroll through the available types: - Press ICM (the ICM key flashes) - Press VOL ▲ or VOL ▼ to scroll through the entries. - Press HOLD to accept the displayed entry. 						
	EXT (Extension number - view only)						
	NAME (Name) [No names entered] When entering names, see <i>Keys for Entering Names</i> on page 615.						
	DOOR CHIME (For Door Boxes only: 0=Normal Ring Group ringing, 1=Low pitch chime pattern, 2=Mid range pitch chime pattern, 3=High pitch chime pattern) [0]						
	RELAY OWNER (For Door Boxes only: (DS1000: 0 = Relay not assigned, 1=Relay assigned to DOOR1, 2=Relay assigned to DOOR2) [0] (DS2000: 0=CPU relay not assigned to Door Box, =CPRU Relay assigned to Door Box) [0]						
	DSS TYPE (0=Uninstalled, 1=24-Button, 2=110 Button) [0]						
	DSS BLOCK NUM (1-4) [1]						
	CLASS OF SERVICE (1-15) [Extension 300=1, All others=2]						
	STA TOLL LVL DAY (1-7, 0=No restriction) [0]						
	STA TOLL LVL NITE (1-7, 0=No restriction) [0]						
	ACCESS LVL (0-5) [Extension 300=5, All others=3]						
	OVRFLW EXT (Any valid extension number) [300]						
	DID OVRFLW B-R-D (0=No overflow, 1=Busy/DND Overflow, 2=Ring No Answer Overflow, 3=Busy/DND and Ring No Answer Overflow) [0]						
Press this:	To do this:						
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.						
CONF	Cancel your entry and back up to the previous prompt level.						
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.						
LND	Erase the entry to the left of the cursor.						
CHECK	Restore the previous entry.						
CLEAR	Clear the entry from the display (unless otherwise noted).						

1800 - Extension Options

1802 - Extension Options (Part 1)

Description



DS1000/2000

- Using the System Administrator (PC Program) to set up Ringdown Extension requires system software version 03.11.00 or higher and PC Program version 01.01.07 or higher.
- Setting the ringdown destination as a Personal Speed Dial bin requires system software version 03.12.00 or higher.
- The *Voice Mail Port* option was relabeled *Answering Machine* in software version 03.14.03 and higher. For systems without voice mail, unique handling of customer-provided answering machines requires software version 03.14.05 or higher.

Use **Program 1802 - Extension Options (Part 1)** to set up additional options for extensions. Also see *Program 1801 - Extension Port Description* on page 754 and *Program 1807 - Extension Options (Part 2)* on page 771.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 50: Program 1802 - Extension Options (Part 1)

Option	Description	Entries	Default
Do Not Disturb	Use this option to enable or disable Do Not Disturb at the extension. <ul style="list-style-type: none"> • See <i>Do Not Disturb</i> on page 220 for more. 	ALLOW DND? Y = Enable N = Disable	Y
Ring Group Number	Use this option to assign an extension to a Ring Group. <ul style="list-style-type: none"> • See <i>Group Ring</i> on page 279 for more. • See <i>Ring Groups</i> on page 462 for more. This may be the same as Group Ring. 	RING GROUP NUM? 1-8 0 = Unassigned	0
Call Pickup Group Number	Use this option to assign an extension to a Pickup Group. <ul style="list-style-type: none"> • See <i>Group Call Pickup</i> on page 273 for more. 	PK-UP GROUP NUM? 1-8 0 = Unassigned	0
Privacy Release Group	Use this option to assign an extension to a Privacy Release Group. <ul style="list-style-type: none"> • See <i>Privacy</i> on page 435 for more. 	PRIV REL GRP NUM? 1-16 0 = Unassigned	0
Off-Hook Signaling for Intercom Calls	Use this option to assign an extension's Off-Hook Signaling options for Intercom calls. <ul style="list-style-type: none"> • See <i>Voice Over</i> on page 600 for more. 	OHS ICM? 0 = No Off-Hook Signaling 1 = Call Wait beeps 3 = Voice Over	1

1800 - Extension Options

1802 - Extension Options (Part 1)

Table 50: Program 1802 - Extension Options (Part 1)

Option	Description	Entries	Default
Off-Hook Signaling for Hotline Partner	<p>Use this option to assign an extension's Off-Hook Signaling options for calls from the Hotline partner.</p> <ul style="list-style-type: none"> • See <i>Hotline</i> on page 302 for more. • See <i>Off-Hook Signaling</i> on page 394 for more. 	<p>OHS HL? 0 = No Off-Hook Signaling 1 = Call Wait beeps 3 = Voice Over</p>	1
Off-Hook Signaling for CO Calls	<p>Use this option to assign an extension's Off-Hook Signaling options for trunk calls.</p> <ul style="list-style-type: none"> • See <i>Attendant Position</i> on page 37 for more. • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Off-Hook Signaling</i> on page 394 for more. 	<p>OHS CO? 0 = No Off-Hook Signaling 1 = Camp On tone 2 = Off hook ringing</p>	2
Handsfree Reply on Intercom Calls	<p>Use this option to enable or disable Handsfree reply (Handsfree Answerback). Calls ring if disabled.</p> <ul style="list-style-type: none"> • See <i>Handsfree and Handsfree Answerback</i> on page 287 for more. 	<p>HF REPLY ON ICM? Y = Enable N = Disable</p>	Y
Automatic Handsfree	<p>Use this option to enable or disable Automatic Handsfree.</p> <ul style="list-style-type: none"> • See <i>Automatic Handsfree</i> on page 45 for more. • See <i>Handsfree and Handsfree Answerback</i> on page 287 for more. 	<p>AUTO HANDSFREE? Y = Enable N = Disable</p>	Y
Busy Lamp Field	<p>Use this option to enable or disable the DSS function for an extension's Programmable Function Keys.</p> <ul style="list-style-type: none"> • See <i>Direct Station Selection (DSS)</i> on page 177 for more. 	<p>BUSY LAMP FIELD? Y = Enable N = Disable</p>	N
Line Dial Up	<p>Use this option to enable or disable an extension's ability to access lines 1-64 in DS2000 by dialing trunk access codes #901-#964, or 1-6 in DS1000 by dialing codes #901-#906.</p> <ul style="list-style-type: none"> • See <i>Central Office Calls, Placing</i> on page 119 for more. 	<p>LINE DIAL UP? Y = Enable N = Disable</p>	N
Station's Dial 9 Group	<p>Use this option to assign the Trunk Group a user accesses when they dial 9 for an outside line or press a switched loop key.</p> <ul style="list-style-type: none"> • See <i>Central Office Calls, Placing</i> on page 119 for more. • See <i>Trunk Group Routing</i> on page 566 for more. • See <i>Trunk Groups</i> on page 572 for more. 	<p>DIAL 9 GROUP? 90-98</p>	90

1800 - Extension Options

1802 - Extension Options (Part 1)

Table 50: Program 1802 - Extension Options (Part 1)

Option	Description	Entries	Default
Retain Trunk Volume Setting	<p>If this option is enabled (Y), the system remembers the user-set handset and Hands-free volume for each trunk call. If disabled (N), the system uses a median handset and Handsfree volume setting each time the user places a trunk call.</p> <ul style="list-style-type: none"> See <i>Volume Controls</i> on page 603 for more. 	<p>RETAIN TRK VOL? Y = Enable (retain user setting) N = Disable (use median system setting)</p>	Y
Key Access to Outbound Lines	<p>Use this option to enable or disable the extension user's ability to press a Programmable Function Key to access and outside line.</p> <ul style="list-style-type: none"> See <i>Central Office Calls, Placing</i> on page 119 for more. See <i>Line Keys</i> on page 356 for more. See <i>Programmable Function Keys</i> on page 444 for more. 	<p>KEY ACCESS TO LN? Y = Enable N = Disable</p>	Y
Page Zone Member	<p>Use this option to assign the extension to a Page Zone (1-7, 0 for All Call only).</p> <ul style="list-style-type: none"> See <i>Paging</i> on page 409 for more. 	<p>PAGE ZONE MEMBER? 1-7 for zones 1-7 0 for All Call only</p>	0
BGM	<p>Use this option to enable or disable Background Music at the extension.</p> <ul style="list-style-type: none"> See <i>Background Music</i> on page 53 for more. 	<p>BGM? Y = Enable N = Disable</p>	Y
Extension's Operator	<p>Use this option to assign the extension's operator. This is the co-worker the extension user reaches when they dial 0.</p> <ul style="list-style-type: none"> See <i>Attendant Position</i> on page 37 for more. 	<p>EXT'S OPERATOR? 300-427 in DS2000 or 300-333 in DS1000</p>	300

1800 - Extension Options

1802 - Extension Options (Part 1)

Table 50: Program 1802 - Extension Options (Part 1)

Option	Description	Entries	Default
Ring Down Destination	<p>Use this option to assign the extension's Ring Down destination.</p> <ul style="list-style-type: none"> See <i>Ringdown Extension</i> on page 463 for more. <p>In software versions 03.10.08 and higher, you can also use this option to designate the extension associated with the cordless telephone base unit <i>Desk</i> button.</p> <ul style="list-style-type: none"> See <i>Cordless Telephone</i> on page 147 for more. 	<p>RG DN DEST?</p> <ul style="list-style-type: none"> 0 = None (Ring Down disabled), Extension number (300-427 in DS2000 or 300-333 in DS1000), UCD master number (700-707), Voice Mail master number (700), Ring Group master number (600-607), Personal Speed Dial bin (#701-#720), System Speed Dial bin (#200-#299) <ul style="list-style-type: none"> The Ringdown destination cannot be a trunk (e.g., 101). 	None
Speed Dial Block	<p>Use this option to assign a Speed Dial block to an extension.</p> <ul style="list-style-type: none"> See <i>Speed Dial</i> on page 481 for more. See <i>Call Forwarding Off Premise</i> on page 75 for more. 	<p>SPDL BLOCK NUM?</p> <p>6-62 by default. See <i>Allocating Speed Dial Blocks</i> on page 481.</p>	300=6, 301=7, through 356=62
Answering Machine	<p>For systems <i>without</i> voice mail that are using a customer-provided answering machine, use this option to designate the extension as an Answering Machine. This will cause any trunk call picked up by the answering machine not to be marked as answered in the Caller ID log.</p> <ul style="list-style-type: none"> See <i>Caller ID Logging</i> on page 102 for more. 	<p>ANSWER MACHINE?</p> <p>Y = Extension assigned as an answering machine N = Extension not assigned as an answering machine</p>	N
Outgoing ANI ID (DS2000 Only)	<p><u>For E1 trunks only</u>, use this option to specify the outgoing ANI data that identifies the extension. This option is only for E1 MFC dialing. It is not used in North America.</p> <ul style="list-style-type: none"> See <i>T1 Trunking</i> on page 530 for more. 	<p>OTG ANI ID?</p> <p>4 digits max, using 0-9, # and *</p>	No entry

1800 - Extension Options

1802 - Extension Options (Part 1)

Telephone Programming Instructions

1802 - Extension Options (Part 1) (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 1802 + HOLD.	
EXTENSION #	(Any valid extension number) [300]
ALLOW DND	(9=Yes, 6=No) [Yes]
RING GROUP NUM	(1-8, 0=Unassigned) [0]
PICK-UP GROUP NUM	(1-8, 0=Unassigned) [0]
PRIV REL GRP NUM	(1-16, 0=Unassigned) [0]
OHS ICM	(0=None, 1=Call Wait beeps, 3=Voice Over) [1]
OHS HL	(0=None, 1=Call Wait beeps, 3=Voice Over) [1]
OHS CO	(0=None, 1=Call Wait beeps, 2=Off Hook Ringing) [2]
HF REPLY ON ICM	(9=Yes, 6=No) [Yes]
AUTO HANDSFREE	(9=Yes, 6=No) [Yes]
BUSY LAMP FIELD	(9=Yes, 6=No) [No]
LINE DIAL UP	(9=Yes, 6=No) [No]
DIAL 9 GROUP	(90-98) [90]
RETAIN TRK VOL	(9=Yes, 6=No) [Yes]
KEY ACCESS TO LN	(9=Yes, 6=No) [Yes]
PAGE ZONE MEMBER	(1-7, 0=All Call) [0]
BGM	(9=Yes, 6=No) [Yes]
EXT'S OPERATOR	(Any valid extension number) [300]
RG DN DEST	(Any valid extension number, UCD Master number, or Ring Group master number. 0=Disabled) [0]
SPDL BLOCK NUM	(6-62, 0=No block assigned) [300=6, 301=7, through 356=62]
ANSWER MACHINE	(9=Yes, 6=No) [No]
OUT ANI ID	(4 digits max using 0-9, # and *) [No entry]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1800 - Extension Options

1803 - Extension Line Access Assignments

Description



DS1000	Available. Trunks 4-6 require the Expansion Board.
DS2000	Available.

Use **Program 1803 - Extension Line Access Assignments** to assign the incoming and outgoing trunk access for extensions.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 51: Program 1803 - Extension Line Access Assignments

Option	Description	Entries	Default
Access Option	<p>For each extension, use this option to assign the access option for each trunk.</p> <ul style="list-style-type: none"> • See <i>Initial System Startup</i> on page 8 for more. • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Central Office Calls, Placing</i> on page 119 for more. • See <i>Conference</i> on page 142 for more. • See <i>Direct Trunk Access</i> on page 191 for more. • See <i>Forced Trunk Disconnect</i> on page 271 for more. • See <i>Group Call Pickup</i> on page 273 for more. • See <i>Last Number Redial</i> on page 351 for more. • See <i>Line Keys</i> on page 356 for more. • See <i>Loop Keys</i> on page 360 for more. • See <i>Night Service / Night Ring</i> on page 389 for more. • See <i>Privacy Release Groups</i> on page 437 for more. • See <i>Private Line</i> on page 440 for more. • See <i>Save Number Dialed</i> on page 468 for more. • See <i>Speed Dial</i> on page 481 for more. • See <i>Tandem Trunking / Unsupervised Conference</i> on page 538 for more. • See <i>Trunk Group Routing</i> on page 566 for more. • See <i>Trunk Groups</i> on page 572 for more. 	NO ACCESS? 0 = No access INCOMING ONLY? 1 = Incoming only OUTGOING ONLY? 2 = Outgoing only FULL ACCESS? 3 = Full access	3 (All trunks, all extensions)

1800 - Extension Options

1803 - Extension Line Access Assignments

Telephone Programming Instructions

1803 - Extension Line Access Assignments (Entry Range) [Default Setting]			
ICM + #*#* + Password (372000) + HOLD + 1803 + HOLD.			
	EXTENSION #	(Any valid extension number) [300]	
		LINE NUMBER	(DS2000=1-64, DS1000=1-6) [1]
		(Data entry)	0=No access, 1=Incoming only, 2=Outgoing only, 3=Full Access) [3]
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

1800 - Extension Options

1804 - Extension Trunk Group Access

Description



DS1000	Available. Trunks 4-6 require the Expansion Board.
DS2000	Available.

Use **Program 1804 - Extension Trunk Group Access** to assign the outgoing access to Trunk Groups. Incoming Trunk Group access is always allowed.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 52: 1804 - Extension Trunk Group Access

Option	Description	Entries	Default
Trunk Group Access	For each extension, use this option to assign outgoing access for each Trunk Group. <ul style="list-style-type: none"> • See <i>Initial System Startup</i> on page 8 for more. • See <i>Central Office Calls, Placing</i> on page 119 for more. • See <i>Trunk Groups</i> on page 572 for more. 	LINE GROUP n:nnn Y = Allow N = Prevent	Y (All extensions, all Trunk Groups)

1800 - Extension Options

1804 - Extension Trunk Group Access

Telephone Programming Instructions

1804 - Extension Trunk Group Access (Entry Range) [Default Setting]			
ICM + ##* + Password (372000) + HOLD + 1804 + HOLD.			
	EXTENSION #	(Any valid extension number) [300]	
		LINE GROUP 90	(9=Yes, 6=No) [Yes]
		LINE GROUP 91	(9=Yes, 6=No) [Yes]
		LINE GROUP 92	(9=Yes, 6=No) [Yes]
		LINE GROUP 93	(9=Yes, 6=No) [Yes]
		LINE GROUP 94	(9=Yes, 6=No) [Yes]
		LINE GROUP 95	(9=Yes, 6=No) [Yes]
		LINE GROUP 96	(9=Yes, 6=No) [Yes]
		LINE GROUP 97	(9=Yes, 6=No) [Yes]
		LINE GROUP 98	(9=Yes, 6=No) [Yes]
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

1800 - Extension Options

1805 - Ring Assignments

Description



DS1000/2000

- See *Default* in the table below for the initial ring assignment setup.
- Single line sets ring according to **1805 - Ring Assignment** programming (just like keysets).

Use **Program 1805 - Ring Assignments** to set up incoming ringing for each trunk at each extension.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

The system automatically disables the **1805 - Ring Assignments** programming for all single line ports assigned as Voice Mail ports in **1802 - Voice Mail Port**. To have Voice Mail answer an outside call, the trunk should be a Direct Inward Line (i.e., directly terminated) to the Voice Mail master number.

Table 53: 1805 - Ring Assignments

Option	Description	Entries	Default
Ring Assignment	<p>For each extension, use this option to assign the access option for each trunk.</p> <ul style="list-style-type: none"> • See <i>Initial System Startup</i> on page 8 for more. • See <i>Central Office Calls, Answering</i> on page 113 for more. • See <i>Delayed Ringing</i> on page 149 for more. • See <i>Group Call Pickup</i> on page 273 for more. • See <i>Key Ring</i> on page 344 for more. • See <i>Line Keys</i> on page 356 for more. • See <i>Loop Keys</i> on page 360 for more. • See <i>Night Service / Night Ring</i> on page 389 for more. • See <i>Private Line</i> on page 440 for more. 	<p>1 = Lamp only (day and night) 2 = Ringing day and night 3 = Night Ring only, lamp during the day 4 = Delay ring day and night</p>	<p><u>DS2000</u> 2 (All trunks for extensions 300-315) 1 (All trunks for extensions above 315) <u>DS1000</u> 2 (All trunks for all extensions)</p>

1800 - Extension Options

1805 - Ring Assignments

Telephone Programming Instructions

1805 - Ring Assignments (Entry Range) [Default Setting]			
ICM + #*#* + Password (372000) + HOLD + 1805 + HOLD.			
	EXTENSION #	(Any valid extension number) [300]	
	LINE NUMBER x	(Trunk port number 1-64 in DS2000, 1-6 in DS1000) [1]	
		(Data entry)	(The following options are available: 1=Lamp only (day and night) 2=Ringing (day and night) 3=Night ring only, lamp only during the day 4=Delay ring day and night [Following are the default assignments:] <u>DS2000</u> 2 (for all trunks for extensions 300-315) 1 (for all trunks for extensions above 315) <u>DS1000</u> 2 (for all trunks for all extensions)
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

1800 - Extension Options

1806 - Ring Type Configuration

Description



DS1000/2000 Available.

Use **Program 1806 - Ring Type Configuration** to set up the Distinctive Ringing Extension Override feature. This option sets the type of ringing the extension will use for trunk calls in the day, night, and delay ring mode. Note that display keyset users may also be able to set up this feature using the **ASSIGN** (ASGN) soft key.

Also use this option to load a Ring Set (1-3) into an extension. You may want to do this, for example, if you used the **CONFIG** soft key to save a Ring Set as a system default. Use this option as an alternative to going to each extension and using the following to select a default Ring Set:

- *Super Display*: **PROGRAM + RING + CONFIG + DEFAULT**
- *22-Button or 34-Button Display*: **PGM + RING + CNFG + MORE + MORE + DFLT**

Conditions

None.

Table 54: 1806 - Ring Type Configuration

Option	Description	Entries	Default
Day Ring Type	<p>Use this option to set the <i>Extension Override</i> Ring Type option for “Day Ring” trunks ringing the extension. This is the same as following the ASSIGN (ASGN) soft key.</p> <ul style="list-style-type: none"> • If <i>1003 - Day Ring Type</i> (page 713) is 0 (Standard Group), the setting you make in this option will take effect. If <i>1003 - Day Ring Type</i> (page 713) is 1-3, the setting you make in this option will only take effect if <i>0101 - Extension Ring Override</i> (page 621) is also enabled (Y). • See <i>Distinctive Ringing</i> on page 200 for more. 	<p>DAY RING TYPE? 1 = Ring Type A 2 = Ring Type B 3 = Ring Type C 0 = LINE (follows the setting for the trunk in program 1003 - Day Ring Type)</p>	0 (LINE)
Night Ring Type	<p>Use this option to set the <i>Extension Override</i> Ring Type option for “Night Ring” trunks ringing the extension. This is the same as following the ASSIGN (ASGN) soft key.</p> <ul style="list-style-type: none"> • If <i>1003 - Night Ring Type</i> (page 713) is 0 (Standard Group), the setting you make in this option will take effect. If <i>1003 - Night Ring Type</i> (page 713) is 1-3, the setting you make in this option will only take effect if <i>0101 - Extension Ring Override</i> (page 621) is also enabled (Y). • See <i>Distinctive Ringing</i> on page 200 for more. 	<p>NIGHT RING TYPE? 1 = Ring Type A 2 = Ring Type B 3 = Ring Type C 0 = LINE (follows the setting for the trunk in program 1003 - Night Ring Type)</p>	0 (LINE)

1800 - Extension Options

1806 - Ring Type Configuration

Table 54: 1806 - Ring Type Configuration

Option	Description	Entries	Default
Delay Ring Type	Use this option to set the <i>Extension Override</i> Ring Type option for “Delay Ring” trunks ringing the extension. This is the same as following the ASSIGN (ASGN) soft key. <ul style="list-style-type: none"> If <i>1003 - Delay Ring Type</i> (page 713) is 0 (Standard Group), the setting you make in this option will take effect. If <i>1003 - Delay Ring Type</i> (page 713) is 1-3, the setting you make in this option will only take effect if <i>0101 - Extension Ring Override</i> (page 621) is also enabled (Y). See <i>Distinctive Ringing</i> on page 200 for more. 	DELAY RING TYPE? 1 = Ring Type A 2 = Ring Type B 3 = Ring Type C 0 = LINE (follows the setting for the trunk in program 1003 - Delay Ring Type)	0 (LINE)
Initialize Ring Type	Use this option to load one of the 3 default Ring Sets (1-3) into an extension. <ul style="list-style-type: none"> See <i>Distinctive Ringing</i> on page 200 for more. 	RING TYPE SET#? 1 = Ring Set 1 2 = Ring Set 2 3 = Ring Set 3	1 (Ring Set 1)

Telephone Programming Instructions

1806 - Ring Type Configuration (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 1806 + HOLD.	
EXTENSION #	(Any valid extension number) [300]
DAY RING TYPE	(1=Ring Type A, 2=Ring Type B, 3=Ring Type C, 0=LINE which follows the setting for the trunk in 1003-Day Ring Type) [0]
NIGHT RING TYPE	(1=Ring Type A, 2=Ring Type B, 3=Ring Type C, 0=LINE which follows the setting for the trunk in 1003-Day Ring Type) [0]
DELAY RING TYPE	(1=Ring Type A, 2=Ring Type B, 3=Ring Type C, 0=LINE which follows the setting for the trunk in 1003-Day Ring Type) [0]
INIT RING TYPE	(Yes/No) [N/A]
RING TYPE SET	(1=Ring Set 1, 2=Ring Set 2, 3=Ring Set 3) [1]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	<ul style="list-style-type: none"> Scroll to the next prompt on the same prompt level. Scrolls left or right while editing PIN codes.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1800 - Extension Options

1807 - Extension Options (Part 2)

Description



DS1000/2000 Available.

Use **Program 1807 - Extension Features (Part 2)** to set additional options for extensions. Also see *Program 1801 - Extension Port Description* on page 754 and *Program 1802 - Extension Options (Part 1)* on page 758.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 786) saves you time when customizing this option.

Conditions

None

Table 55: 1807 - Extension Features (Part 2)

Option	Description	Entries	Default
Station Voice Announced Intercom Calls	Use this option to enable or disable incoming voice-announced Intercom calls while the extension is <i>not</i> in the headset mode. If disabled, all Intercom calls to the extension ring. <ul style="list-style-type: none"> • See <i>Handsfree and Handsfree Answer-back</i> on page 287 for more. 	STA VOICE CALL	Y
Headset Voice-Announced Intercom Calls	Use this option to enable or disable incoming voice-announced Intercom calls while the extension is in the headset mode. If enabled (Y), the user hears 2 beeps in the headset when they receive an incoming Intercom call. If disabled (N), the user hears ringing over the telephone speaker. <ul style="list-style-type: none"> • See <i>Headset Compatibility</i> on page 291 for more. • 	HDSET VOICE CALL? Y = Enable N = Disable	Y
Paging Through Speaker	Use this option to enable or disable Paging through the telephone speaker. <ul style="list-style-type: none"> • See <i>Paging</i> on page 409 for more. 	PAGE THRU SPK? Y = Enable N = Disable	Y
Headset	Use this option to enable or disable the Headset mode. <ul style="list-style-type: none"> • See <i>Group Listen</i> on page 277 for more. • See <i>Headset Compatibility</i> on page 291 for more. 	HEADSET? Y = Enable N = Disable	N
Ring Line Preference	Use this option to enable or disable Ringing Line Preference. <ul style="list-style-type: none"> • See <i>Ring Line Preference</i> on page 465 for more. 	RING LINE PREF? Y = Enable (i.e., enable Ringing Line Preference) N = Disable (i.e., enable idle line preference)	Y

1800 - Extension Options

1807 - Extension Options (Part 2)

Table 55: 1807 - Extension Features (Part 2)

Option	Description	Entries	Default
Hunt Type	Use this option to assign the hunt type for the extension. The options are: 1 = Ring No Answer Trunk (TRUNK RNA) 2 = Busy/Ring No Answer Trunk (T BUSY RNA) 3 = Busy/Ring No Answer All Calls (A BUSY RNA) 4 = Busy Trunk (TRUNK BUSY) 5 = Uniform Call Distribution (UCD) • See <i>Extension Hunting</i> on page 239 for more.	HUNT TYPE? 0 = None 1 = Trunk RNA 2 = T Busy RNA 3 = A Busy RNA 4 = Trunk Busy 5 = UCD	None
Hunt Destination	(For type 1-4 hunting only) Use this option to assign the next extension in a Circular or Terminal Hunt group. • See <i>Extension Hunting</i> on page 239 for more.	HUNT DEST? 300-427 in DS2000 300-333 in DS1000 CLEAR = Undefined	Undefined
Hunt Master Number	(For type 5 and 6 hunting only) Use this option to assign the hunt group master number to the member extension. These numbers are set up in <i>0510 - ACD/UCD Master Extension Numbers and Names</i> on page 679. • See <i>Extension Hunting</i> on page 239 for more.	ENTER MASTER NUM: Any valid master number CLEAR = Undefined	Undefined
Prime Line Type	Use this option to set the type of Prime Line at an extension. • See <i>Prime Line Preference</i> on page 431 for more.	PRIME LINE TYPE? 0 = None 1 = Key 2 = Line	Key
Prime Line Key	If Prime Line Type above is set to Key (1), use this option to select the key assigned as the extension's Prime Line. • See <i>Prime Line Preference</i> on page 431 for more.	PRIME LINE KEY? 1-24 ICM = Intercom Prime Line	ICM
Prime Line Trunk/Group	If Prime Line Type above is set to Line (2), use this option to assign the trunk or Trunk Group the extension seizes when the user lifts the handset. The trunk or group does not have to be on a key appearing on the phone. Also use this option to set up Prime Line for single line telephones. • See <i>Prime Line Preference</i> on page 431 for more.	LINE/GROUP? Trunks 1-6 (DS1000) or 1-64 (DS2000) Trunk Group (90-98)	90

1800 - Extension Options

1807 - Extension Options (Part 2)

Table 55: 1807 - Extension Features (Part 2)

Option	Description	Entries	Default
PIN Code	<p>Use this option to assign a PIN code to an extension. The PIN code is used for both Extension Locking and Walking Class of Service.</p> <ul style="list-style-type: none"> • See <i>Extension Locking</i> on page 256 for more. • See <i>Walking Class of Service</i> on page 606 for more. 	<p>PIN CODE? 4-digits long, using 0-9, # and *.</p>	No entry
Walking Class of Service Security Code	<ul style="list-style-type: none"> • This option is currently not used. 	<p>W-COS CODE? 8-digits long, using 0-9, # and *.</p>	No entry
Caller ID Log Type	<p>Use this option to specify the type of Caller ID Logging at an extension. With personal logging, an extension's records are stored on their phone. With group logging, all extensions within the same Caller ID logging group share the same records. If the number of records is exceeded at the extension, new call records overwrite old call records (FIFO, or first-in, first out).</p> <ul style="list-style-type: none"> • See <i>Caller ID Logging</i> on page 102 for more. 	<p>CID LOG? 0 (no logging) 1 (personal logging) 2 (group logging)</p>	<p><u>DS1000</u> 2 (group logging) for keyset extensions 300-315 <u>DS2000</u> 1 (personal logging) for 300-315, 0 (no logging) for all other extensions</p>
Caller ID Personal Records	<p>If <i>Caller ID Log Type</i> above is 1 (personal logging), use this option to specify the number of Caller ID records the extension should have.</p> <ul style="list-style-type: none"> • See <i>Caller ID Logging</i> on page 102 for more. 	<p>CID CALL RECORDS? 0-99</p>	<p><u>DS2000</u> 10 for 300-315, 0 for all other extensions</p>
Caller ID Logging Group	<p>If <i>Caller ID Log Type</i> above is 2 (group logging), use this option to specify to which Caller ID Logging Group the extension belongs.</p> <ul style="list-style-type: none"> • See <i>Caller ID Logging</i> on page 102 for more. 	<p>CID LOG GROUP#? 1-8</p>	<p><u>DS1000</u> 1 for keyset extensions 300-315 <u>DS2000</u> None</p>
Display Language (Software version 03.10.08 or higher)	<p>Use this option to set the language for the telephone display (including system programming). You can also set this option from the keyset using the soft keys.</p> <ul style="list-style-type: none"> • See <i>Language Selection</i> on page 348 for more. 	<p>DISPLAY LANGUAGE 0=English 1=Spanish</p>	0 (English)

1800 - Extension Options

1807 - Extension Options (Part 2)

Telephone Programming Instructions

1807 - Extension Options (Part 2) (Entry Range) [Default Setting]	
ICM + #*#* + Password (372000) + HOLD + 1807 + HOLD.	
EXTENSION #	(Any valid extension number) [300]
STA VOICE CALL?	(9=Yes, 6=No) [Yes]
HDSET VOICE CALL?	(9=Yes, 6=No) [Yes]
PAGE THRU SPK?	(9=Yes, 6=No) [Yes]
HEADSET?	(9=Yes, 6=No) [No]
RING LINE PREF?	(9=Yes, 6=No) [Yes]
HUNT TYPE?	(1=Ring No Answer Trunk, 2=Busy/Ring No Answer Trunk, 3=Busy/Ring No Answer All Calls, 4=Busy Trunk, 5=UCD, 0=None) [0]
HUNT DEST?	If types 1-4 selected, enter hunt destination: (Any valid extension number, CLEAR=Undefined) [Undefined]
MASTER NUM?	If type 5 is selected, enter master number: (Any valid unused extension number, although 700-707 are pre-defined, CLEAR=Undefined) [Undefined]
PRIME LINE TYPE?	(1=Key, 2=Line, 0=None) [1]
PRIME LINE KEY?	If Key (1) was selected: (1-24 or ICM for Intercom Prime Line) [ICM]
LINE/GROUP?	If Line (2) was selected: (Trunk port number 1-64 in DS2000, 1-6 in DS1000, or Trunk Group number 90-98) [90]
PIN CODE?	Press HOLD to enter PIN code. (4 digits long using 0-9, # and *) [No entry]
CID LOG?	(1=Personal, 2=Group, 0=None) [DS2000=1 for keyset extensions 300-315, 0 for all others. DS1000=2 for keyset extensions 300-315, 0 for all others.]
CID CALL RECORDS	If Personal (1) is selected: (0-99) [DS2000=10 for keyset extensions 300-315, 0 for all others. DS1000=No entry.]
CID LOG GROUP#	If Group (2) is selected: (1-8) [DS2000=No entry. DS1000=1 for keyset extensions 300-315, 0 for all others.]
DISPLAY LANGUAGE	(0=English, 1=Spanish) [0]
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	<ul style="list-style-type: none"> • Scroll to the next prompt on the same prompt level. • Scrolls left or right while editing PIN codes.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

1800 - Extension Options

1808 - IntraMail Subscriber Mailbox Options

Description



DS1000/2000

|| Available.

Refer to the *IntraMail System Guide* for an explanation of this option.

8000 - Voice Mail

8001 - Voice Mail Setup

Description



DS1000/2000 Available.

Use the **8001 - Voice Mail Setup** to enable Voice Mail.

Voice Mail Type

(V-MAIL TYP)

Use this option to set the type of voice mail (I) connected to your system.

Options

- **E** (3) - External (such as VANGARD Mail).
- **I** (4) - IntraMail (set automatically if IntraMail is installed)
- UltraMail (set automatically if the UltraMail PCB is installed).
- **0** - None

Default

- With IntraMail (and no other voice mail) installed, the default for this option is **Y** (Yes).

Voice Mail Master Extension Number

(V-MAIL MST EXT)

Use this option to set the voice mail master extension number (e.g., 700). *In most installations, you should not change this option from its default setting (700).*

Options

- Follows the setting for group 1 in **0510 - ACD/UCD Master Extension Numbers and Names**.

Default

- **700**

Telephone Programming Instructions

8001 - Voice Mail Setup Program Entry (Entry Range) [Default Setting]	
ICM + #*#* + Password (372000) + HOLD + 8001 + HOLD.	
V-MAIL TYP	(The following options are available: E (3) = External voice mail, such as VANGARD Mail I (4) = IntraMail, which is automatically set when IntraMail is installed 0 = None Automatically set to UltraMail in DS2000 if UltraMail is installed [With no voice mail installed, the default setting is 0.]
V-MAIL MST EXT	(Follows the setting for group 1 in 0510 - ACD/UCD Master Extension Numbers and Names) [700]
Press this:	To do this:
HOLD	Enter (accept) data you entered.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt.
CHECK	Restore the previous entry.

Description



DS1000/2000 || Available.

Use the **8002 - Voice Mail Options (Part 1)** to set various options for the system's Voice Mail ports. Each of these options applies globally to *all* Voice Mail ports.

Name

(NAME)

Use this option to modify the name for all Voice Mail ports. The system displays this name when a display keyset user calls a Voice Mail port (either by pressing **MW** or dialing the master number). You should always end the name with the # character. The system substitutes the port number for the #. Using the default name *VM PORT #* for example, the keyset display shows *VM PORT 1* when calling port 1.

Options

- See *Programming Names and Text Messages* on page 615 for help with entering names
- Consider leaving the option at its default setting.

Default

- **VM PORT #** (The system substitutes the port number for the # when calling the port).

Class of Service

(CLASS OF SERVICE)

Use this option to set the Class of Service for all Voice Mail ports. See *Class of Service* on page 133 for more.

Options

- **1-15** (Class of Service 1-15)

Default

- **2**

Toll Restriction Level (Day)

(TOLL LEVEL DAY)

Use this option to set the day mode Toll Restriction Level for all Voice Mail ports. See *Toll Restriction* on page 549 for more.

Options

- **0-7** (Toll Restriction Level 0-7)

Default

- **0** (Toll Restriction Level 0)

Toll Restriction Level (Night)

(TOLL LEVEL NITE)

Use this option to set the night mode Toll Restriction Level for all Voice Mail ports. See *Toll Restriction* on page 549 for more.

Options

- **0-7** (Toll Restriction Level 0-7)

Default

- **0** (Toll Restriction Level 0)

8000 - Voice Mail

8002 - Voice Mail Port Options (Part 1)

Operator

(OPERATOR)

Use this option to determine which extension is called when a Voice Mail port dials 0.

Options

- **Extension number** (300-333 in DS1000, 300-427 in DS2000)

Default

- **300**

Dial 9 Group

(DIAL 9 GROUP)

Use this option to specify the dial-9 group for Voice Mail ports. Whenever a Voice Mail port dials 9, the system accesses the first available trunk in the group specified by this option.

Options

- **90-98** (Trunk Groups 0-8)

Default

- **90** (Trunk Group 90)

Outgoing Trunk Group Access

(LINE GROUP xx)

Use this option to control outgoing Trunk Group Access for Voice Mail ports. A Voice Mail port can dial out on a Trunk Group allowed in this option. You make a separate entry for each Trunk Group (90-98).

Options

- **Yes**
- **No**

Default

- **Yes** (for all Trunk Groups)

8000 - Voice Mail

8002 - Voice Mail Port Options (Part 1)

Telephone Programming Instructions

8002 - Voice Mail Options (Part 1) Program Entry (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 8002 + HOLD.	
NAME	(Name) [Voice Mail #] When entering names, see <i>Keys for Entering Names</i> on page 615.
CLASS OF SERVICE	(1-15) [2]
TOLL LEVEL DAY	(0-7) [0]
TOLL LEVEL NITE	(0-7) [0]
OPERATOR	(Any valid extension number) [300]
DIAL 9 GROUP	(90-98) [90]
LINE GROUP 90	(9=Yes, 6=No) [Yes]
LINE GROUP 91	(9=Yes, 6=No) [Yes]
LINE GROUP 92	(9=Yes, 6=No) [Yes]
LINE GROUP 93	(9=Yes, 6=No) [Yes]
LINE GROUP 94	(9=Yes, 6=No) [Yes]
LINE GROUP 95	(9=Yes, 6=No) [Yes]
LINE GROUP 96	(9=Yes, 6=No) [Yes]
LINE GROUP 97	(9=Yes, 6=No) [Yes]
LINE GROUP 98	(9=Yes, 6=No) [Yes]
Press this:	To do this:
HOLD	Enter (accept) data you entered.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt.
CHECK	Restore the previous entry.

8000 - Voice Mail

8003 - Voice Mail Port Options (Part 2)

Description



DS1000/2000 Available.

Use the **8003 - Voice Mail Options (Part 2)** to set trunk access for Voice Mail ports. The settings you make in this option apply globally to *all* Voice Mail ports.

Trunk Number

(LINE NUMBER)

Use this option to select the trunk you want to program. Trunk numbers are 1-6 in DS1000 and 1-64 in DS2000.

Options

- **Trunk number** (1-6 in DS1000, 1-64 in DS2000)

Default

- N/A

Trunk Access Type

[N/A]

For the trunk selected above, use this option to select the access type. All Voice Mail ports use the access type specified in this option for the selected trunk. A Voice Mail port can dial out on a specific trunk only if it is allowed in this option.

Options

- **0** (No access)
- **1** (Incoming only)
- **2** (Outgoing only)
- **3** (Full access)

Default

- **3** (Full access)

Telephone Programming Instructions

8003 - Voice Mail Options (Part 2) Program Entry (Entry Range) [Default Setting]			
ICM + ### + Password (372000) + HOLD + 8003 + HOLD.			
	LINE NUMBER	(1-6 in DS1000, 1-64 in DS2000) [1]	
	Data Entry	(0=No Access, 1=Incoming Only, 2=Outgoing Only, 3=Full Access) [3]	
Press this:		To do this:	
HOLD		Enter (accept) data you entered.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt.	
CHECK		Restore the previous entry.	

Description



DS1000/2000

|| Available.

Refer to the *IntraMail System Guide* for an explanation of this option.

8000 - Voice Mail

8005 - IntraMail Master Mailbox Options

Description



DS1000/2000

|| Available.

Refer to the *IntraMail System Guide* for an explanation of this option.

Description



DS1000/2000

|| Available.

Refer to the *IntraMail System Guide* for an explanation of this option.

8000 - Voice Mail

8007 - IntraMail Answer Tables

Description



DS1000/2000

|| Available.

Refer to the *IntraMail System Guide* for an explanation of this option.

Description



DS1000/2000

|| Available.

Refer to the *IntraMail System Guide* for an explanation of this option.

9800 - System Utilities, Part 1

9801 - Copy Command

Description



DS1000/2000 || Available.

Use **Program 9801 - Copy Command** to copy Class of Service, extension and trunk data. You can copy data from a single source to a single destination, or from a single source to a range of COSs, extensions or trunks.

Program 9801 - Copy Command will copy data in the following programs:

- Program 0101: Class of Service Options
- Program 1001: Trunk Port Description
- Program 1003: Trunk Options
- Program 1701: Programmable Function Key Assignments
- Program 1702: Personal Speed Dial
- Program 1703: DSS Key Assignment
- Program 1801: Extension Port Description
- Program 1802: Extension Options (Part 1)
- Program 1803: Extension Line Access Assignments
- Program 1804: Extension Trunk Group Access
- Program 1805: Ring Assignments
- Program 1807: Extension Options (Part 2)

Conditions

None

9800 - System Utilities, Part 1

9801 - Copy Command

Telephone Programming Instructions

9801 - Copy Command (Page 1 of 2) (Entry Range) [Default Setting]			
ICM + ### + Password (372000) + HOLD + 9801 + HOLD.			
	ENTER PGM#	(Enter program number you want to copy. Available program numbers are:) 0101: Class of Service Options 1001: Trunk Port Description 1003: Trunk Options 1701: Programmable Function Key Assignments 1702: Personal Speed Dial 1703: DSS Key Assignment 1801: Extension Port Description 1802: Extension Options (Part 1) 1803: Extension Line Access Assignments 1804: Extension Trunk Group Access 1805: Ring Assignments 1807: Extension Options (Part 2) [There is no default entry]	
		SOURCE COS (0101)	Enter the Class of Service (COS) from which you want to copy data.
		DEST RANGE	<ul style="list-style-type: none"> When copying to a single COS, enter the COS to which you want to copy data. If the destination should be a range of Classes of Service, enter the lowest numbered COS in the range.
		DEST RANGE xx -	<ul style="list-style-type: none"> When copying to a single COS, enter the same COS that you entered in the previous step. If the destination should be a range of Classes of Service, enter the highest numbered COS in the range. COPY COMPLETE indicates that the copy was successful.
		SOURCE CO (1001) SOURCE CO Opt (1003)	Enter the trunk from which you want to copy data.
		DEST RANGE	<ul style="list-style-type: none"> When copying to a single trunk, enter the trunk to which you want to copy data. If the destination should be a range of trunks, enter the lowest numbered trunk in the range.
		DEST RANGE xx -	<ul style="list-style-type: none"> When copying to a single trunk, enter the same trunk that you entered in the previous step. If the destination should be a range of trunks, enter the highest numbered trunk in the range. COPY COMPLETE indicates that the copy was successful.
		SOURCE KEYS (1701) SOURCE PERS SD (1702) SOURCE BLFS (1703) SOURCE STA TYP (1801) SOURCE S.OPT1 (1802) SOURCE LN ACC (1803) SOURCE GP ACC (1804) SOURCE RING (1805) SOURCE S.OPT2 (1807)	Enter the extension from which you want to copy the program's data.
		DEST RANGE	<ul style="list-style-type: none"> When copying to a single extension, enter the extension to which you want to copy data. If the destination should be a range of extensions, enter the lowest numbered extension in the range.
		DEST RANGE xx -	<ul style="list-style-type: none"> When copying to a single extension, enter the same extension that you entered in the previous step. If the destination should be a range of extensions, enter the highest numbered extension in the range. COPY COMPLETE indicates that the copy was successful.

9800 - System Utilities, Part 1

9801 - Copy Command

9801 - Copy Command (Page 2 of 2) (Entry Range) [Default Setting]	
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

Description



DS1000/2000

Available.

Use **9803 - Ring Tone Setup** to customize the 9 tones associated with each Ring Type. You can also use **9803 - Ring Tone Setup** to initialize Distinctive Ringing system-wide with a single command. This option initializes the following:

- Distinctive Ringing configuration at each keyset
- Trunk Override (Distinctive Ringing by trunk and ringing mode)
- Extension Ring Override
- Key Ring Override
- The tones in **9803 - Ring Tone Setup**

Conditions

None

9800 - System Utilities, Part 1

9803 - Ring Tone Setup

Telephone Programming Instructions

9803 - Ring Tone Setup (Entry Range) [Default Setting]	
ICM + ##*#* + Password (372000) + HOLD + 9803 + HOLD.	
PROG-P / INIT-I	(P[7]=Program, I[4]=Init) [No entry]
	If you enter I (4) to initialize Distinctive Ringing: <ul style="list-style-type: none"> You only need to initialize your ring tones if you want to return all ring settings to factory default.
	ARE YOU SURE (9=Yes, 6=No) [No entry] <ul style="list-style-type: none"> Following initialization, you must reset the system or unplug and then replug each telephone.
	If you enter P (7) to program Ring Tone Setup:
	RING TONE # (0-9) (Ring tone number 0-9) [0] <ul style="list-style-type: none"> The tone you select consists of two frequencies (Frequency #1 and Frequency #2) and the Modulation Rate.
	FREQUENCY#1 There are 97 frequencies (1-97), from 302 Hz to 3200 Hz. The higher the number, the lower the frequency.
	Enter frequency number (1-97) [N/A] <ul style="list-style-type: none"> The currently programmed frequency plays after you press HOLD to make a new entry. The new frequency plays after you enter the new frequency number.
	FREQUENCY#2 There are 97 frequencies (1-97), from 302 Hz to 3200 Hz. The higher the number, the lower the frequency.
	Enter frequency number (1-97) [N/A] <ul style="list-style-type: none"> The currently programmed frequency plays after you press HOLD to make a new entry. The new frequency plays after you enter the new frequency number.
	MOD RATE There are 255 modulation rates (1-255), from 7.81 Hz to 1000 Hz. The higher the number, the lower the rate.
	Enter modulation rate (1-255) [N/A] <ul style="list-style-type: none"> The currently programmed rate plays after you press HOLD to make a new entry. The new rate plays after you enter the new modulation rate.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

9800 - System Utilities, Part 1

9804 - Initialize Caller ID Log Utility

Description



DS1000/2000 || Available.

Use **9804 - Initialize Caller ID Log Utility** to initialize (clear) all the Caller ID logs system-wide. This utility clears all the personal logs as well as all the group logs. It has no effect on other Caller ID programming.

Conditions

None

Telephone Programming Instructions

9804 - Initialize Caller ID Log Utility (Entry Range) [Default Setting]	
ICM + ##* + Password (372000) + HOLD + 9804 + HOLD.	
ARE YOU SURE	(9=Yes, 6=No) [No entry]
Press this:	To do this:
CONF	Cancel your entry and back up to the previous prompt level.

9900 - System Utilities, Part 2

9901 - Reset Station Port

Description



DS1000/2000

Available.

Use **Program 9901 - Reset Station Port** to reset an extension.

Conditions

None

Telephone Programming Instructions

9901 - Reset Station Port (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 9901 + HOLD.	
PORT	(Any valid extension number) [No entry] <ul style="list-style-type: none">• After pressing hold, you see: RESET PORT xxx to indicate that the reset was successful.
Press this:	To do this:
CONF	Cancel your entry and back up to the previous prompt level.

9900 - System Utilities, Part 2

9902 - Set Up Stations (DS1000)

Description



DS1000

Available.

DS2000

Not available.

Use **9902-Set Up Stations** to set up digital station, analog station, and analog Door Box ports in DS1000. See *Expanded Database* on page 233 for more. There are 34 ports, allocated by default as follows:

DS1000 Station Port Assignments				
Station Ports	Primary Station Number	Secondary Station Number ¹	Extension Number	Assignment
1	1	---	300	Digital Station Ports (Base)
2	2	---	301	
3	3	---	302	
4	4	---	303	
5	5	---	304	
6	6	---	305	
7	7	---	306	
8	8	---	307	
9	9	---	308	Digital Station Ports (Expansion)
10	10	---	309	
11	11	---	310	
12	12	---	311	
13	13	---	312	
14	14	---	313	
15	15	---	314	
16	16	---	315	
17	17	N/A	316	Analog Station Ports (Base)
18	18	N/A	317	
19	19	N/A	318	
20	20	N/A	319	
21	21	N/A	320	Analog Station Ports (Expansion)
22	22	N/A	321	
23	23	N/A	322	
24	24	N/A	323	
25	25	N/A	324	Analog Door Box 1 (Base)
26	26	N/A	325	Analog Door Box 2 (Expansion)
	27-34	N/A	326-333	Unassigned

¹ Secondary Station Numbers only apply to 2-OPX Modules and Digital VANGARD.

9900 - System Utilities, Part 2

9902 - Set Up Stations (DS1000)

There are three basic things you can do with **9902-Set Up Stations** in DS1000:

- Set up the secondary station numbers of 2-OPX Module and digital VANGARD Mail ports. See *Off-Premise Extensions / On-Premise SLT Extensions* on page 399 and *Voice Mail* on page 580 for more.
- Set up external Voice Mail ports (such as analog or digital VANGARD Mail). See *Voice Mail* on page 580 for more.
- Swap programming and extension numbers between two ports of the same type (e.g., two digital stations). See *Program Entry* below.

Setting Up the 2-OPX Module Secondary Channel in DS1000

Auto-ID capability is not available for the second port of a 2-OPX Module. Although the primary 2-OPX Module port is automatically set up when you plug the unit in, you must program the second port.

2-OPX Module Sample Installation in DS1000

The following example shows in DS1000 how to program a 2-OPX Module connected to station port 5.

- Connect the 2-OPX Module to station port 5.
- In **9902-Set Up Stations**, leave the primary station number at its default setting (5). This will make 304 the extension number for the first port on the 2-OPX Module.
- In **9902-Set Up Stations**, assign an unused station number to the secondary station. In a default DS1000 system, consider using station number 27. This station should be unused and will have extension number 326. (Note that secondary station programming will not show up in **1801-Extension Port Description**.)

Conditions

None

9900 - System Utilities, Part 2

9902 - Set Up Stations (DS1000)


Telephone Programming Instructions

9902 - Set Up Stations (DS1000) (Entry Range) [Default Setting]	
ICM + #*#* + Password (372000) + HOLD + 9902 + HOLD.	
D-DGTL	Dial D (3) to set up digital station ports
	PORT:01 PRI STA?1 You see the primary station number assignment for digital station port 01.
A-ANLG	Dial A (2) to set up analog station ports
	PORT:01 STATION?17 You see the station number assignment for analog station port 01.
X-DBOX	Dial X (9) to set up analog Door Box ports.
	PORT:01 STATION?25 You see the station number assignment for Door Box port 01.
	<p>To swap programming and extension numbers between two stations of the same type (302 and 305):</p> <ul style="list-style-type: none"> • Delete the stations you want to swap (e.g., station 3 [extension 302] and station 6 [extension 305]). <ul style="list-style-type: none"> - Press VOL Up until the primary station of the station you want to delete displays. - Press CLEAR to delete the assignment. (The system will <i>not</i> delete the associated programming.) - For digital port 3, enter station 6. For digital port 6, enter station 3. • You can also use 0505-Extension Swap Utility to swap two stations.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

9900 - System Utilities, Part 2

9902 - Set Up Stations (DS2000)

Description

 DS1000	Not available.
DS2000	Available.

You *do not* need to run **9902-Set Up Stations** to activate PCBs on initial installation. Automatic Slot Configuration will do this for you.

Use **9902-Set Up Stations** to set up your DSTU and ASTU PCBs if the site requirements are beyond the capabilities of Automatic Slot Configuration. Use this program to:

- Set up an empty slot prior to inserting a PCB.
 - This lets you set up a system “off-line” without any PCBs plugged in.
- Deinstall (remove) an installed PCB.
 - You may want to do this if you need to reorder your PCBs.
- Change the port to station number assignments on an installed PCB.
 - You can swap programming for two devices in software without cross-connection.
- Swap (relocate) PCBs after the initial installation.
 - This allows you to reorder your PCBs after the initial installation without reprogramming.

See *Expanded Database* on page 233 for more.

Setting Up the 2-OPX Module Secondary Channel in DS2000

Auto-ID capability is not available for the second port of a 2-OPX Module. Although the primary 2-OPX Module port is automatically set up when you plug the unit in, you must program the second port.

2-OPX Module Sample Installation in DS2000

The following example shows in DS2000 how to program a 2-OPX Module connected to the first port of a 16DSTU PCB in slot 2 (CN2).

8x32 with 2-OPX Module								
Slot	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
PCB Type	16DSTU	16DSTU	8ATRU					
Numbers	Ext. 300-315	Ext. 316-331	Trunks 101-108					

- Connect the 2-OPX Module to port 1 on the 16DSTU PCB in slot 2 (CN2).
- In **9902-Set Up Stations (DS2000)**, for *slot 2 port 1* leave the primary station number at its default value (e.g., station number 17). This will make 316 the extension number for the first port on the 2-OPX Module.
- In **9902-Set Up Stations (DS2000)**, for *slot 2 port 1* assign an unused station number to the secondary station. In a default system DS2000, consider using station number 97. This station should be unused and will have extension number 396. (Note that the secondary station programming will not show up in **1801-Extension Port Description**.)

Conditions

None

9900 - System Utilities, Part 2

9902 - Set Up Stations (DS2000)

Telephone Programming Instructions

9902 - Set Up Stations (DS2000) (Page 1 of 3)			
ICM + ### + Password (372000) + HOLD + 9902 + HOLD.			
	SLOT?	Select the slot you want to program (2-8).	
The following options are available for empty (uninstalled) slots.			
		I-INSTALL	Install a new station PCB.
		VOL ▲ or Vol ▼	Scroll to select an available station PCB type + HOLD : <ul style="list-style-type: none"> • 16DSTU (16 Digital Station) PCB • 4ASTU (4 Analog Station) PCB • 8ASTU (8 Analog Station) PCB When assigning station numbers: <ul style="list-style-type: none"> • STATION ASSIGNED indicates the assignment was successful. • STATION IN USE indicates the station number is already in use for another port. • STATION INVALID means the station number was out of the allowable range. • XX=Port, YY=Station number. • When changing station assignments, you may find it helpful to use the DS2000 Station Port Assignment Worksheet to keep track of your changes.
<u>Assign Station Numbers for 16DSTU PCBs Only</u>			
			PORT:XX PRI STA YY You see the default station assignment for the first port on the PCB you added. <ul style="list-style-type: none"> • Press HOLD to accept the assignment, OR Enter a new assignment + HOLD, OR Press VOL ▲ or VOL ▼ + HOLD to select another port.
			PORT:XX SEC STA Only make a secondary station assignment for 2-OPX Modules and Digital VANGARD voice mail ports. See <i>Simplified External Voice Mail Programming</i> on page 584 for more. <ul style="list-style-type: none"> • Press HOLD for the next consecutive port.
<u>Assign Station Numbers for 4ASTU and 8ASTU PCBs Only</u>			
			PORT:XX STATION?YY You see the default station assignment for the first port on the PCB you added. <ul style="list-style-type: none"> • Press HOLD to accept the assignment, OR Enter a new assignment + HOLD, OR Press VOL ▲ or VOL ▼ + HOLD to select another port.
		X-SWAP	Swap (relocate) two PCBs. <ul style="list-style-type: none"> • Not available for slot 1. • Used primarily to reorder PCBs in the cabinet. • You can swap an installed slot with an empty slot. The (new) empty slot will then Auto ID with the next available set of station numbers.
		VOL ▲ or Vol ▼	Scroll to select a slot with which you want to swap + HOLD . OR Press HOLD to accept the current slot.
			SWAP:X:YYYY (Y/N) Shows the slot (X) and the card type (YYYY) with which you want to swap.
			Y (9) Execute the swap. <ul style="list-style-type: none"> • CARD SWAPPED indicates the swap is complete. • If required, unplug the PCBs and put them in their new slots. All programming will be retained.
			N (6) Cancel (back up) without swapping.

9900 - System Utilities, Part 2

9902 - Set Up Stations (DS2000)

9902 - Set Up Stations (DS2000) (Page 2 of 3)					
The following options are available for installed slots.					
		V-RMV	Remove (delete) a PCB, making the slot empty. <ul style="list-style-type: none"> • Not available for slot 1. • Remove the PCB from the cabinet when you are done or Automatic Slot Configuration could automatically reinstall it. 		
			REMOVE CARD (Y/N)	Access the Remove Card option	
			Y (9)	Delete a PCB. <ul style="list-style-type: none"> • CARD REMOVED indicates deleting is complete. 	
			N (6)	Cancel (back up) without deleting the PCB.	
		P-PORTS	Change the station number assignments for PCB ports.		
			PORT:XX PRI STA?YY	When assigning station numbers: <ul style="list-style-type: none"> • STATION ASSIGNED indicates the assignment was successful. • STATION IN USE indicates the station number is already in use for another port. • STATION INVALID means the station number was out of the allowable range. • XX=Port, YY=Station number. • When changing station assignments, you may find it helpful to use the DS2000 Station Port Assignment Worksheet to keep track of your changes. 	
			Assign Station Numbers for 16DSTU PCBs Only		
			PORT:XX PRI STA YY	You see the default station assignment for the first port on the PCB you added. <ul style="list-style-type: none"> • Press HOLD to accept the assignment, OR • Enter a new assignment + HOLD, OR • Press VOL ▲ or VOL ▼ + HOLD to select another port. 	
			PORT:XX SEC STA	Only make a secondary station assignment for 2-OPX Modules and Digital VANGARD voice mail ports. See <i>Simplified External Voice Mail Programming</i> on page 584 for more. <ul style="list-style-type: none"> • Press HOLD for the next consecutive port. 	
			Assign Station Numbers for 4ASTU and 8ASTU PCBs Only		
			PORT:XX STATION?YY	You see the default station assignment for the first port on the PCB you added. <ul style="list-style-type: none"> • Press HOLD to accept the assignment, OR • Enter a new assignment + HOLD, OR • Press VOL ▲ or VOL ▼ + HOLD to select another port. 	
		X-SWAP	Swap (relocate) two PCBs. <ul style="list-style-type: none"> • Not available for slot 1. • Used primarily to reorder PCBs in the cabinet. • You can swap an installed slot with an empty slot. The (new) empty slot will then Auto ID with the next available set of station numbers. 		
			VOL ▲ or Vol ▼	Scroll to select a slot with which you want to swap + HOLD , OR Press HOLD to accept the current slot.	
			SWAP:X:YYYY (Y/N)	Shows the slot (X) and the card type (YYYY) with which you want to swap.	
				Y (9)	Execute the swap. <ul style="list-style-type: none"> • CARD SWAPPED indicates the swap is complete. • If required, unplug the PCBs and put them in their new slots. All programming will be retained.
				N (6)	Cancel (back up) without swapping.

9900 - System Utilities, Part 2

9902 - Set Up Stations (DS2000)

9902 - Set Up Stations (DS2000) (Page 3 of 3)	
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted). <ul style="list-style-type: none">• If you press CLEAR to clear a station assignment, the station is no longer assigned to a port but the database remains intact for later assignment.

9900 - System Utilities, Part 2

9903 - Set Up Trunks (DS1000)

Description



DS1000	Available.
DS2000	Not available.

Use **9903-Set Up Trunks** to set up trunks in DS1000. See *Expanded Database* on page 233 for more. There are 6 trunk ports, allocated by default as follows.

DS1000 Trunk Port Assignments			
Trunk Ports	Trunk Number	Extension Number	Assignment
1	1	101	Trunk Ports (Base)
2	2	102	
3	3	103	
4	4	104	Trunk Ports (Expansion)
5	5	105	
6	6	106	

You can use **9903-Set Up Trunks** in DS1000 to swap the programming and extension numbers between two trunks. The swap exchanges the trunk ports but leaves all the programming intact. This is the same as swapping the cross-connect between two trunks - but you make the swap in software instead. See *Telephone Programming Instructions* below for more.

Conditions

None


9900 - System Utilities, Part 2

9903 - Set Up Trunks (DS1000)

Telephone Programming Instructions

9903 - Set Up Trunks (DS1000)	
ICM + ### + Password (372000) + HOLD + 9903 + HOLD.	
PORT:01 TRUNK?1	You see the trunk number assignment for trunk port 1
To swap programming and extension numbers between two trunks: <ul style="list-style-type: none">• Delete the trunks you want to swap. To do this:<ul style="list-style-type: none">- Press VOL Up until the trunk you want to delete displays.- Press CLEAR to delete the assignment. (The system will <i>not</i> delete the associated programming.)• Enter the new trunk number for each trunk port. To do this:<ul style="list-style-type: none">- Press VOL Up until the trunk port you want to program displays.- Enter the new trunk number + HOLD.- Following this procedure, assign trunk numbers to additional trunk ports as required.• You can also use 0505-Extension Swap Utility to swap two trunks.	
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

Description

 DS1000	Not available.
DS2000	Available.

You *do not* need to run **9903-Set Up Trunks** to activate PCBs on initial installation. Automatic Slot Configuration will do this for you.

Use **9903-Set Up Trunks** to set up your trunk PCBs if the site requirements are beyond the capabilities of Automatic Slot Configuration. Use this program to:

- Set up an empty slot prior to inserting a PCB.
 - This lets you set up a system “off-line” without any PCBs plugged in.
- Deinstall (remove) an installed PCB.
 - You may want to do this if you need to reorder your PCBs
- Change the port to trunk assignments on an installed PCB.
 - You can swap programming for two trunks in software without cross-connection.
- Swap the trunk assignments (and all related programming) of two installed PCBs.
 - You can swap programming for two entire PCBs without cross-connection.

See *Expanded Database* on page 233 for more.

Conditions

None

9900 - System Utilities, Part 2

9903 - Set Up Trunks (DS2000)

Telephone Programming Instructions

9903 - Set Up Trunks (DS2000) (Page 1 of 2)					
ICM + ##*#* + Password (372000) + HOLD + 9903 + HOLD.					
	SLOT?	Select the slot you want to program (2-8).			
The following options are available for empty (uninstalled) slots.					
		I-INSTALL	Install a new trunk PCB.		
			VOL ▲ or Vol ▼	Scroll to select an available trunk PCB type + HOLD : <ul style="list-style-type: none"> • 4ATRU (4 Analog Trunk) PCB • 8ATRU (8 Analog Trunk) PCB • 24T1 (T1 Trunk) PCB • 30E1 (E1 Trunk) PCB - not for North America When assigning trunk numbers: <ul style="list-style-type: none"> • TRUNK ASSIGNED indicates the assignment was successful. • TRUNK IN USE indicates the trunk number is already in use for another port. • TRUNK INVALID means the trunk number was out of the allowable range. • XX=Port, YY=Trunk number. • When changing trunk assignments, you may find it helpful to use the DS2000 Trunk Port Assignment Worksheet to keep track of your changes. 	
				PORT:XX TRUNK?YY	You see the default trunk assignment for the first port on the PCB you added. <ul style="list-style-type: none"> • Press HOLD to accept the assignment, OR • Enter a new assignment + HOLD, OR • Press VOL ▲ or VOL ▼ + HOLD to select another port.
		X-SWAP	Swap (relocate) two PCBs. <ul style="list-style-type: none"> • Not available for slot 1. • Used primarily to reorder PCBs in the cabinet. • You can swap an installed slot with an empty slot. The (new) empty slot will then Auto ID with the next available set of trunk numbers. 		
			VOL ▲ or Vol ▼	Scroll to select a slot with which you want to swap + HOLD . OR Press HOLD to accept the current slot.	
				SWAP:X:YYYY (Y/N)	Shows the slot (X) and the card type (YYYY) with which you want to swap.
				Y (9)	Execute the swap. <ul style="list-style-type: none"> • CARD SWAPPED indicates the swap is complete. • If required, unplug the PCBs and put them in their new slots. All programming will be retained.
				N (6)	Cancel (back up) without swapping.

9900 - System Utilities, Part 2

9903 - Set Up Trunks (DS2000)

9903 - Set Up Trunks (DS2000) (Page 2 of 2)					
The following options are available for installed slots.					
		V-RMV	Remove (delete) a PCB, making the slot empty. <ul style="list-style-type: none"> Not available for slot 1. Remove the PCB from the cabinet when you are done or Automatic Slot Configuration could automatically reinstall it. 		
			REMOVE CARD (Y/N)	Access the Remove Card option	
			Y (9)	Delete a PCB. <ul style="list-style-type: none"> CARD REMOVED indicates deleting is complete. 	
			N (6)	Cancel (back up) without deleting the PCB.	
		P-PORTS	Change the trunk number assignments for PCB ports.		
			PORT:XX TRUNK?YY	When assigning trunk numbers: <ul style="list-style-type: none"> TRUNK ASSIGNED indicates the assignment was successful. TRUNK IN USE indicates the trunk number is already in use for another port. TRUNK INVALID means the trunk number was out of the allowable range. XX=Port, YY=Trunk number. When changing trunk assignments, you may find it helpful to use the DS2000 Trunk Port Assignment Worksheet to keep track of your changes. 	
			PORT:XX TRUNK?YY	You see the default trunk assignment for the first port on the PCB you added. <ul style="list-style-type: none"> Press HOLD to accept the assignment, OR Enter a new assignment + HOLD, OR Press VOL ▲ or VOL ▼ + HOLD to select another port. 	
		X-SWAP	Swap (relocate) two PCBs. <ul style="list-style-type: none"> Not available for slot 1. Used primarily to reorder PCBs in the cabinet. You can swap an installed slot with an empty slot. The (new) empty slot will then Auto ID with the next available set of station numbers. 		
			VOL ▲ or Vol ▼	Scroll to select a slot with which you want to swap + HOLD , OR Press HOLD to accept the current slot.	
			SWAP:X:YYYY (Y/N)	Shows the slot (X) and the card type (YYYY) with which you want to swap.	
			Y (9)	Execute the swap. <ul style="list-style-type: none"> CARD SWAPPED indicates the swap is complete. If required, unplug the PCBs and put them in their new slots. All programming will be retained. 	
			N (6)	Cancel (back up) without swapping.	
Press this:			To do this:		
HOLD			Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.		
CONF			Cancel your entry and back up to the previous prompt level.		
VOL ▲ or Vol ▼			Scroll to the next prompt on the same prompt level.		
LND			Erase the entry to the left of the cursor.		
CHECK			Restore the previous entry.		
CLEAR			Clear the entry from the display (unless otherwise noted). <ul style="list-style-type: none"> If you press CLEAR to clear a station assignment, the station is no longer assigned to a port but the database remains intact for later assignment. 		

9900 - System Utilities, Part 2

9903 - Set Up Trunks (DS2000)

DS2000 Trunk Port Assignment Worksheet			
Slot	Port	Trunk Number	Extension Number

9900 - System Utilities, Part 2

9904 - T1/E1 Configuration

Description



DS1000	Not available.
DS2000	Available.

Use **9904-T1/E1 Configuration** to set parameters for the T1 PCB. The table below describes the available options.

9904-T1/E1 Configuration		
Option	Description	Entry
Clock Control	<p>Use this option to specify the clock source for the T1 PCB. The clock is required to synchronize the PCB's operations. The PCB can be either the clock master (1) or the clock slave (2). <u>As master</u>, the T1 PCB uses its own internal clock as the clock source. <u>As slave</u>, the T1 PCB uses the connected T1 circuit from the telco as the clock source.</p> <p>When setting up Tie Lines, keep track of your clock sources. For example, if the local system is the clock master, the remote system should be set for slave so it uses the connected circuit as the clock source.</p> <p>By default, this option is 1 (Master).</p>	CLOCK CTL
Transmit Pulse Amplitude	<p>This option controls the amplitude (strength) of the T1 signals transmitted by the PCB to the telco smart jack or your CSU (if used). The available entries are:</p> <ul style="list-style-type: none"> • 0 = 0-133 feet (0 dB) • 1 = 133-266 feet • 2 = 266-399 feet • 3 = 399-533 feet • 4 = 533-655 feet • 5 = -7.5 dB • 6 = -15 dB • 7 = -22.5 dB <p>Entries 0-4 correspond to the distance from the T1 PCB to either the telco's smart jack or your CSU (depending on your installation). The T1 PCB automatically adjusts the signal amplitude based on your entry.</p> <p>You can alternately use entries 5-7 to make fixed attenuation entries. If connected to a CSU, set your attenuation to match the requirements of the CSU. If your T1 PCB is connected directly to the telco's smart jack, the telco will tell you if any attenuation is required.</p> <p>By default, this option is 0 (0-133 feet). This option does not apply to E1 circuits.</p>	TX PULSE AMPLITUDE

9900 - System Utilities, Part 2

9904 - T1/E1 Configuration

9904-T1/E1 Configuration		
Option	Description	Entry
Framer Type	<p>Use this option to set the Framer Type used by the PCB.</p> <p>If this option is enabled (Y):</p> <ul style="list-style-type: none"> T1 circuits use ESF (Extended Super Frame) mode. This is a 24-Frame mode which provides ABCD signaling bits and additional diagnostics). E1 circuits use CRC-4 16-Frame Multiframe mode. <p>If this option is disabled (N):</p> <ul style="list-style-type: none"> T1 circuits use D3/D4 (12-Frame Multiframe mode which supports AB signaling bits only). E1 circuits do not use CRC4 mode. <p>Always set this option for compatibility with the connected telco. Normally, T1 circuits use ESF.</p> <p>By default, this option is Yes (ESF/CRC4 enabled).</p>	ESF/CRC4 MF(Y/N)
Zero Suppression	<p>Use this option to enable (Y) or disable (N) zero suppression for the PCB transmit path. If enabled, T1 PCBs use B8ZS zero suppression, while E1 PCBs use HDB3 zero suppression. If disabled, the PCB has no transmit zero suppression. (Note the receive zero suppression is always enabled.)</p> <p>Zero suppression may help prevent T1 PCB clocking problems, but should always be set for compatibility with the connected telco.</p> <p>By default, this option is enabled.</p>	B8ZS/HDB3(Y/N)
Number of PCM Channels	<p>Use this option to determine the number of active channels on the PCB. PCBs configured for T1 have 24 available channels, while E1 has 30. Enter the number of channels to be active, or enter 0 to activate all channels.</p> <p>If you are using all channels in the T1, leave this entry at 0. If you are connected to a fractional telco T1 circuit (e.g., providing only 8 circuits), set this option to match the number of circuits in your fractional span. Additionally, you may have to limit the number of active channels if the system has a unique configuration that could exceed the 119 allowable timeslots.</p> <p>This option always selects the lowest channels. For example, an entry of 8 uses channels 1-8. When connecting to a DSU and splitting voice and data channels, the voice channels must be the lower-numbered channels.</p> <p>By default, this option is 0 (all channels are active).</p>	# PCM Channels

9900 - System Utilities, Part 2

9904 - T1/E1 Configuration

9904-T1/E1 Configuration		
Option	Description	Entry
Loopback	<p>Use this option to enable T1 PCB loopback. Although loopbacks are generally used for factory testing, you may find Remote and Payload Loopback helpful for on-site troubleshooting.</p> <p>The available loopback entries are:</p> <ul style="list-style-type: none"> • <u>0 = None</u> Loopback is not enabled. • <u>1 = Metallic</u> This option loops the T1 PCB internal analog output to the PCB internal analog input. The PCB external (telco side) connection is isolated during this test. <i>Metallic Loopback is not normally used as a field test.</i> • <u>2 = Digital</u> This option loops the T1 PCB internal digital output through the PCB's framer chip and then back to the PCB internal digital input. <i>Digital Loopback is not normally used as a field test.</i> • <u>3 = Remote</u> This option loops any analog signal on the T1 PCB external (telco side) receive tip and ring to the external (telco side) transmit tip and ring. <i>Remote Loopback may be useful for field testing because it loops any analog test signal on the PCB receive tip and ring back to the transmit tip and ring.</i> • <u>4 = ST-Bus</u> This option loops the T1 PCB internal digital output to the PCB internal digital input. It does not loop back through the framer chip. <i>ST-Bus Loopback is not normally used as a field test.</i> • <u>5 = Payload</u> This option loops any digital signal on the T1 PCB external (telco side) receive tip and ring to the external (telco side) transmit tip and ring. <i>Payload Loopback may be useful for field testing because it loops any digital test signal on the PCB receive tip and ring back to the transmit tip and ring.</i> <p>By default, the loopback option is 0 (None).</p>	LOOPBACK

Conditions

None

9900 - System Utilities, Part 2

9904 - T1/E1 Configuration

Telephone Programming Instructions

9904-T1/E1 Configuration (Entry Range) [Default Setting]				
ICM + ### + Password (372000) + HOLD + 9904 + HOLD				
	SLOT	Enter the slot for the T1 PCB (2-8)		
		C-CFG/D-DFLT	Choose Configure (CFG) or Default (DFLT)	
If you enter C (2) to configure the T1 PCB:				
		CLOCK CTL (Clock Control)	(1=Clock master, 2=Clock slave) [MASTER]	
		TX PULSE AMPLITUDE (Transmit Pulse Amplitude)	(The following options are available: 0 = 0-133 feet (0 dB) 1 = 133-266 feet 2 = 266-399 feet 3 = 399-533 feet 4 = 533-655 feet 5 = -7.5 dB 6 = -15 dB 7 = -22.5 dB [0])	
		ESF/CRC4 MF (Framer Type)	(9=Yes [ESF], 6=No [D3/D4]) [Yes]	
		B8ZS/HDB3 (Zero Suppression)	(9=Yes, 6=No) [Yes]	
		# PCM CHANNELS (Number of PCM Channels)	(1-24, 0=All circuits) [0]	
		LOOPBACK	(0=None, 1=Metallic, 2=Digital, 3=Remote, 4=ST-Bus, 5=Payload) [NONE]	
If you enter D (3) to reinstate the PCBs default settings:				
			Y (9)	Return the PCB to its default settings
			N (6)	Exit this option with returning the PCB to default
Press this:		To do this:		
	HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.		
	CONF	Cancel your entry and back up to the previous prompt level.		
	VOL ▲ or Vol ▼	Scroll through the available entries.		
	CHECK	Restore the previous entry.		
	CLEAR	Clear the entry from the display (unless otherwise noted).		

Description



DS1000/2000 Available.

Use **Program 9905 - Password** to change the system passwords. The table below shows the default system passwords. Turn to *System Programming Password Protection* on page 514 for more on the system passwords.

Table 56: Password Levels

Password Level	Password	Level
System Administrator 1	0000	1
System Administrator 2	9999	2
Installer	372000	3

Conditions

When programming passwords, the system will enforce the *higher* level password if there are duplicate entries. For example, if you inadvertently set the level 3 (Installer) password the same as either level 1 (System Administrator 1) or level 2 (System Administrator 2), the system will enforce the level 3 password.

Telephone Programming Instructions

9905 - Password (Entry Range) [Default Setting]			
ICM + ##* + Password (372000) + HOLD + 9905 + HOLD.			
	PASSWORD LVL	(1=SYS AD1, 2=SYS AD2, 3=INSTALL) [No entry]	
	NEW PASS	Enter the password. (8 digits max, using 0-9, # and *) [No entry]	
	CONFIRM	Re-enter the new password. (8 digits max, using 0-9, # and *) [No entry]	
		<ul style="list-style-type: none"> • PASSWORD ACCEPTED means you successfully re-entered the password. • INVALID means you did not re-enter the correct password. 	
Press this:		To do this:	
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF		Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.	
LND		Erase the entry to the left of the cursor.	
CHECK		Restore the previous entry.	
CLEAR		Clear the entry from the display (unless otherwise noted).	

9900 - System Utilities, Part 2

9906 - Database Save

Description



DS1000	Not applicable.
DS2000	Available.

Use **Program 9906 - Database Save** to back up site data to PC Card P/N 85880. Refer to your Hardware Manual for the specifics. *Software version 03.**.** databases are not compatible with any prior 02.**.** versions.*

Conditions

The following table lists the PC Card Backup Error Messages that you may see when using the instructions below.

This error message:	Means this:
No PCCARD	The PC Card is not installed. <i>Install the PC Card and try again.</i>
ERASE FAILED	The system could not overwrite an existing data base on the PC Card. <i>Repeat the procedure. If you get the message again, try another PC Card.</i>
SAVE FAILED	The system could not save data to the PC Card. <i>Repeat the procedure. Of you get the error message again, try another PC Card.</i>

9900 - System Utilities, Part 2

9906 - Database Save

Telephone Programming Instructions

9906 - Database Save (Entry Range) [Default Setting]	
ICM + ##** + Password (372000) + HOLD + 9906 + HOLD. <ul style="list-style-type: none"> Before beginning, be sure to insert PC Card P/N 85880 into the CPU and verify that the Mode Switch is set to RUN. 	
9906:DATABASE SAVE START (Y/N)	Start the Database Save. (9=Yes, 6=No) [No entry]
9906:DATABASE NAME	Enter the database name. (Name, 10 characters max.) [No names entered] When entering names, see <i>Keys for Entering Names</i> on page 615. <ul style="list-style-type: none"> You should always enter a name for your database.
9906:DBxx 00 (empty)	Select the database address (DB 00 through DB15). <ul style="list-style-type: none"> Press HOLD to store the database in the selected address, OR Press Vol Up or Vol Down + HOLD to select another address. The prompt (empty) indicates that the selected storage address is empty. If the address is full, a name and date will display in place of (empty).
9906:SAVING	When storing data in an empty database address: <ul style="list-style-type: none"> No PCCARD indicates that the PC Card is not installed. ERASE FAILED means the system could not overwrite an existing database on the PC Card. SAVE FAILED means the system could not save data to the PC Card. The PC Card Active LED on the CPU is active during the backup.
9906: DATABASE SAVE COMPLETE!	Shows that the database save is complete.
9906:DATABASE SAVE REPLACE DB xx Y/N	When storing data in an address that already has a database stored: <ul style="list-style-type: none"> Dial 9 (Yes) + HOLD to overwrite the existing stored data and go back to the SAVING . . . prompt. Dial 6 (No) + HOLD to cancel without overwriting.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

9900 - System Utilities, Part 2

9907 - Database Load

Description



DS1000	Not applicable.
DS2000	Available.

Use **Program 9907 - Database Load** to load site data previously saved to PC Card P/N 85880 into the system data base. Refer to your Hardware Manual for the specifics. *Software version 03.**.** databases are not compatible with any prior 02.**.** versions.*

Conditions

The following table lists the PC Card Load Error Messages that you may see when using the instructions below.

This error message:	Means this:
No PCCARD	The PC Card is not installed. <i>Install the PC Card and try again.</i>
NO DATABASE	There is no data stored in the data base address you selected. <i>Select another data base address and try again.</i>

9900 - System Utilities, Part 2

9907 - Database Load

Telephone Programming Instructions

9907 - Database Load (Entry Range) [Default Setting]					
ICM + ##* + Password (372000) + HOLD + 9907 + HOLD. <ul style="list-style-type: none"> Before beginning, be sure to insert PC Card P/N 85880 into the CPU and verify that the Mode Switch is set to RUN. 					
	9907:DATABASE LOAD START (Y/N)	Start the Database Load. (9=Yes, 6=No) [No entry]			
		9907:DBxx 00 (name & date)	Select the database address (DB 00 through DB15). <ul style="list-style-type: none"> Press HOLD to load the database from address 00, OR Press Vol Up or Vol Down + HOLD to select another address. 		
			9907:LOADING	When loading data: <ul style="list-style-type: none"> No PCCARD indicates that the PC Card is not installed. NO DATABASE means there is no data stored in the database you selected. The PC Card Active LED on the CPU is active during the load. The system will automatically resets when the load completes. 	
Press this:		To do this:			
HOLD		Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.			
CONF		Cancel your entry and back up to the previous prompt level.			
VOL ▲ or Vol ▼		Scroll to the next prompt on the same prompt level.			
LND		Erase the entry to the left of the cursor.			
CHECK		Restore the previous entry.			
CLEAR		Clear the entry from the display (unless otherwise noted).			

9900 - System Utilities, Part 2

9908 - PC Card Erase Utility

Description



DS1000	Not applicable.
DS2000	Available.

Use **Program 9908 - PC Card Erase Utility** to completely erase all the data bases in a Data Base PC Card (P/N 85880).

Conditions

None

Telephone Programming Instructions

9908 - PC Card Erase Utility (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 9908 + HOLD. • Before beginning, be sure to insert PC Card P/N 85880 into the CPU and verify that the Mode Switch is set to RUN .	
9908:FORMAT PCCARD ERASE ALL (Y/N)	Format the PC Card. (9=Yes, 6=No) [No entry]
ABORT (Y/N)	(9=Yes, 6=No) [No entry]
9908:FORMAT PCCARD	When formatting the PC card: <ul style="list-style-type: none"> • The PC Card Active LED flashes occasionally during the format. • PCCARD ERASED ! indicates that the PC card has been successfully erased.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

9900 - System Utilities, Part 2

9988 - DS1000 Database Transfer Utility

Description

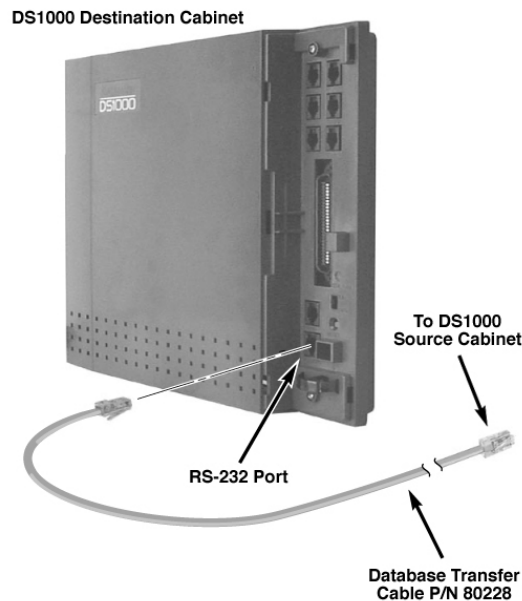
 DS1000	Available.
 DS2000	Not applicable.

Use program **9988 - DS1000 Database Transfer Utility** to transfer the contents of one DS1000 system (called the source) to another DS1000 system (called the destination). All programming is transferred, including user-set options such as Personal Speed Dial, Distinctive Ringing and custom Volume/Contrast Control settings. *Software version 03.**.** databases are not compatible with any prior 02.**.** versions.*

Connecting the Systems

To connect the DS1000 systems for Database Transfer.

1. Be sure both systems are turned on and operating properly.
2. Check the programming in the source system to be sure the configuration you are going to transfer is correct.
3. Plug one end of the special Database Transfer Cable (P/N 80228) into the RS-232 port of the destination system (i.e., the system that will *receive* the new programming).
4. Plug the other end of the Database Transfer Cable (P/N 80228) into the RS-232 port of the source system (i.e., the system that currently has the programming you want to transfer).

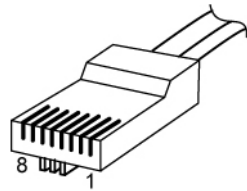


Notes:

- If making your own Database Transfer Cable:
 - Use standard RJ45 (8-conductor mod jack) connectors on both ends.
 - Connect the wires to the mod jack pins as follows:
 - 4 ---> 4
 - 5 ---> 6
 - 6 ---> 5
 - All other pins *must* be unterminated.

9900 - System Utilities, Part 2

9988 - DS1000 Database Transfer Utility



RJ-61X Plug

- When transferring data between systems that have different software levels, use the *DS1000/2000 Upgrade Table* (P/N 80000UPG**) to verify the settings of the new options installed after upgrade.
- Using the DS1000 Database Transfer Utility does not affect the system software level of either the source or destination system.
- Caller ID Logging log data is not saved between systems with dissimilar software levels. Although all Caller ID and Caller ID Logging programming will be transferred, the actual logs will not.
- The DS1000 Database Transfer Utility does not transfer the Time and Date. The destination system retains its own Time and Date settings.
- The DS1000 Database Transfer Utility will transfer the **1801-Circuit Type** settings. However, after the transfer completes the destination system will automatically reset and auto-ID all connected station devices.

Conditions

None

9900 - System Utilities, Part 2

9988 - DS1000 Database Transfer Utility

Telephone Programming Instructions

9988 - DS1000 Database Transfer Utility (Entry Range) [Default Setting]	
Important: Follow these steps exactly as written.	
Make sure the destination system is idle.	
From the destination system: ICM + ### + Password (372000) + HOLD + 9988 + HOLD.	
	ARE YOU SURE (9=Yes, 6=No) [N/A]
	Y (9) Begin the Database Transfer.
	RESET SOURCE KSU... THEN PRESS HOLD KEY
	On the <u>source</u> system, set the MODE switch to LOAD and press the red reset button. <ul style="list-style-type: none"> The source system's Power LED turns red. The source system's database will be unaffected by the Database Transfer.
	On the <u>destination</u> system, press HOLD .
	9988: DATA TRANSFER IN PROGRESS..... Indicates that the data is transferring.
	<ul style="list-style-type: none"> The destination system is inoperable while Database Transfer takes place. If you forget to press HOLD in the previous step, the Database Transfer Utility will eventually abort.
	When the Database Transfer completes: <ul style="list-style-type: none"> The <u>destination system</u> automatically resets. At the <u>source system</u>, set the MODE switch back to RUN and press the red reset button. To repeat the Database Transfer procedure, you must start over again from the beginning of the procedure.
	>>>TRANSFER OK Indicates that the Database Transfer was successful. <ul style="list-style-type: none"> Lift and replace the handset or reset the system again to clear the display.
	...TRANSFER FAILED Indicates that the Database Transfer was unsuccessful. <ul style="list-style-type: none"> The destination system will restart with the default (initialized) database. All prior programming in the destination system will be lost. If the destination system does not recover from the reset, the transfer was incomplete and the database has become corrupted. You'll need to shut the system down, pull the battery from the CPU (for about 5 minutes) and then restart the system. The default database will automatically be reinstalled.
	N (6) <ul style="list-style-type: none"> Exit program 9988 without transferring the database.
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

The table on the next page explains the Power LED flash rates that occur during Database Transfer.

9900 - System Utilities, Part 2

9988 - DS1000 Database Transfer Utility

Power LED Flash Rates During Database Transfer		
	Source System	Destination System
While Database Transfer is in progress:	Flashes briefly red, then flashes green.	Flashes briefly green, then alternately flashes red and green.
When Database Transfer completes:	Flashes red/green.	Flashes slowly green.

Description



DS1000/2000

Requires software version 03.10.08 or higher.

Use the Regional Defaults capability to switch (restart) your system from the North America mode to the Latin America mode. Switching your system to the Latin America mode automatically makes the following changes:

- The default language in programming, SMDR, and all telephone displays is Spanish.
- The Latin American Toll Restriction options are enabled.
- The companding method is switched from Mu-Law to A-Law. See *Program 0301 - A-Law Companding* on page 636 for more.

Only use this option if your system is installed in Latin America. It is not intended for US applications.

Conditions

None

Telephone Programming Instructions

9998 - Regional Defaults (Entry Range) [Default Setting]	
ICM + ### + Password (372000) + HOLD + 9998 + HOLD.	
REGION CODE	(1=US Mode, 2=Latin America) [1]
RESET TO CONT (Y/N)	<ul style="list-style-type: none"> • Y=Restart your system with the new Regional Defaults • N=Back up without restarting your system with the new Regional Defaults
Press this:	To do this:
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.
CONF	Cancel your entry and back up to the previous prompt level.
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.
LND	Erase the entry to the left of the cursor.
CHECK	Restore the previous entry.
CLEAR	Clear the entry from the display (unless otherwise noted).

9900 - System Utilities, Part 2

9999 - System Initialization

Description



DS1000/2000 || Available.

Use **Program 9999 - System Initialization** to initialize the system database.

! Warning!

Initializing the system erases all your programmed entries and replaces them with the factory-installed default values.

Conditions

None

Telephone Programming Instructions

9999 - System Initialization (Entry Range) [Default Setting]		
ICM + ### + Password (372000) + HOLD + 9999 + HOLD.		
	INITIALIZE SYS	(9=Yes, 6=No) [No]
	Y (9)	Initialize the system. • If you enter Y, the system will initialize with the factory-installed default settings and return to the idle state.
	N (6)	Exit the program without initializing.
Press this:	To do this:	
HOLD	Enter (accept) data you entered, advance to the next prompt without changing your entry, or navigate to the next prompt level.	
CONF	Cancel your entry and back up to the previous prompt level.	
VOL ▲ or Vol ▼	Scroll to the next prompt on the same prompt level.	
LND	Erase the entry to the left of the cursor.	
CHECK	Restore the previous entry.	
CLEAR	Clear the entry from the display (unless otherwise noted).	

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