

PORTATONE





Owner's Manual









SPECIAL MESSAGE SECTION

This product utilizes batteries or an external power supply (adapter). DO NOT connect this product to any power supply or adapter other than one described in the manual, on the name plate, or specifically recommended by Yamaha.

This product should be used only with the components supplied or; a cart, rack, or stand that is recommended by Yamaha. If a cart, etc., is used, please observe all safety markings and instructions that accompany the accessory product.

SPECIFICATIONS SUBJECT TO CHANGE:

The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

This product, either alone or in combination with an amplifier and headphones or speaker/s, may be capable of producing sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.

IMPORTANT: The louder the sound, the shorter the time period before damage occurs.

NOTICE:

Service charges incurred due to a lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

ENVIRONMENTAL ISSUES:

Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

Battery Notice:

This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement. This product may also use "household" type batteries. Some of these may be rechargeable. Make sure that the battery being charged is a rechargeable type and that the charger is intended for the battery being charged.

When installing batteries, do not mix batteries with new, or with batteries of a different type. Batteries MUST be installed correctly. Mismatches or incorrect installation may result in overheating and battery case rupture.

Warning:

Do not attempt to disassemble, or incinerate any battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by the laws in your area. Note: Check with any retailer of household type batteries in your area for battery disposal information.

Disposal Notice:

Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc. If your dealer is unable to assist you, please contact Yamaha directly.

NAME PLATE LOCATION:

The name plate is located on the bottom of the product. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.

Model

Serial No.

Purchase Date

PLEASE KEEP THIS MANUAL

92-BP (bottom)

FCC INFORMATION (U.S.A.)

1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

- 2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.
- 3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/ uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of

other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to co-axial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA90620

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

* This applies only to products distributed by YAMAHA CORPORATION OF AMERICA.

(class B)

OBSERVERA!

Apparaten kopplas inte ur växelströmskällan (nätet) så länge som den ar ansluten till vägguttaget, även om själva apparaten har stängts av.

ADVARSEL: Netspæendingen til dette apparat er IKKE afbrudt, sålæenge netledningen siddr i en stikkontakt, som er t endt — også selvom der or slukket på apparatets afbryder.

VAROITUS: Laitteen toisiopiiriin kytketty käyttökytkin ei irroita koko laitetta verkosta.

(standby)

Entsorgung leerer Batterien (nur innerhalb Deutschlands)

Leisten Sie einen Beitrag zum Umweltschutz. Verbrauchte Batterien oder Akkumulatoren dürfen nicht in den Hausmüll. Sie können bei einer Sammelstelle für Altbatterien bzw. Sondermüll abgegeben werden. Informieren Sie sich bei Ihrer Kommune.

(battery)

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep this manual in a safe place for future reference.

A WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

Power supply/AC power adaptor

- Only use the voltage specified as correct for the instrument. The required voltage is printed on the name plate of the instrument.
- Use the specified adaptor (PA-130 or an equivalent recommended by Yamaha) only. Using the wrong adaptor can result in damage to the instrument or overheating.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.
- Do not place the AC adaptor cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Do not open

 Do not open the instrument or attempt to disassemble the internal parts or modify them in any way. The instrument contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.

Water warning

- Do not expose the instrument to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- · Never insert or remove an electric plug with wet hands.

Fire warning

• Do not put burning items, such as candles, on the unit. A burning item may fall over and cause a fire.

If you notice any abnormality

 If the AC adaptor cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the instrument, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the adaptor plug from the outlet, and have the instrument inspected by qualified Yamaha service personnel.

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the instrument or other property. These precautions include, but are not limited to, the following:

Power supply/AC power adaptor

- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord.
- Unplug the AC power adaptor when not using the instrument, or during electrical storms.
- Do not connect the instrument to an electrical outlet using a multipleconnector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.

Battery

- Always make sure all batteries are inserted in conformity with the +/- polarity markings. Failure to do so might result in overheating, fire, or battery fluid leakage.
- Always replace all batteries at the same time. Do not use new batteries together with old ones. Also, do not mix battery types, such as alkaline batteries with manganese batteries, or batteries from different makers, or different types of batteries from the same maker, since this can cause overheating, fire, or battery fluid leakage.
- · Do not dispose of batteries in fire.

- Do not attempt to recharge batteries that are not intended to be charged.
- When the batteries run out, or if the instrument is not to be used for a long time, remove the batteries from the instrument to prevent possible leakage of the battery fluid.
- Keep batteries away from children.
- If the batteries do leak, avoid contact with the leaked fluid. If the battery fluid should come in contact with your eyes, mouth, or skin, wash immediately with water and consult a doctor. Battery fluid is corrosive and may possibly cause loss of sight or chemical burns.

Location

- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not use the instrument in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the instrument, TV, or radio may generate noise.
- Do not place the instrument in an unstable position where it might accidentally fall over.

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- Before moving the instrument, remove all connected adaptor and other cables.
- When setting up the product, make sure that the AC outlet you are using is
 easily accessible. If some trouble or malfunction occurs, immediately turn off
 the power switch and disconnect the plug from the outlet. Even when the
 power switch is turned off, electricity is still flowing to the product at the
 minimum level. When you are not using the product for a long time, make
 sure to unplug the power cord from the wall AC outlet.
- Use only the stand specified for the instrument. When attaching the stand or rack, use the provided screws only. Failure to do so could cause damage to the internal components or result in the instrument falling over.

Connections

Before connecting the instrument to other electronic components, turn off the
power for all components. Before turning the power on or off for all
components, set all volume levels to minimum. Also, be sure to set the
volumes of all components at their minimum levels and gradually raise the
volume controls while playing the instrument to set the desired listening
level.

Maintenance

 When cleaning the instrument, use a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.

Handling caution

- Do not insert a finger or hand in any gaps on the instrument.
- Never insert or drop paper, metallic, or other objects into the gaps on the panel or keyboard. If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the instrument inspected by qualified Yamaha service personnel.
- Do not place vinyl, plastic or rubber objects on the instrument, since this might discolor the panel or keyboard.
- Do not rest your weight on, or place heavy objects on the instrument, and do
 not use excessive force on the buttons, switches or connectors.
- Do not use the instrument/device or headphones for a long period of time at a high or uncomfortable volume level, since this can cause permanent hearing loss. If you experience any hearing loss or ringing in the ears, consult a physician.

Saving data

Saving and backing up your data

 Some data items (page 31) are automatically saved as backup data in the internal memory even if you turn the power off.

Saved data may be lost due to malfunction or incorrect operation. Save important data to external device such as a computer.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the instrument, or data that is lost or destroyed.

Always turn the power off when the instrument is not in use.

When using a power adaptor, even when the power switch is in the "STANDBY" position, electricity is still flowing to the instrument at the minimum level. When you are not using the instrument for a long time, make sure you unplug the AC power adaptor from the wall AC outlet.

Make sure to discard used batteries according to local regulations.

 The illustrations and LCD screens as shown in this owner's manual are for instructional purposes only, and may appear somewhat different from those on your instrument.

COPYRIGHT NOTICE

This product incorporates and bundles computer programs and contents in which Yamaha owns copyrights or with respect to which it has license to use others' copyrights. Such copyrighted materials include, without limitation, all computer software, style files, MIDI files, WAVE data, musical scores and sound recordings. Any unauthorized use of such programs and contents outside of personal use is not permitted under relevant laws. Any violation of copyright has legal consequences. DON'T MAKE, DISTRIBUTE OR USE ILLEGAL COPIES.

Copying of the commercially available musical data including but not limited to MIDI data and/or audio data is strictly prohibited except for your personal use.

Trademarks

- Windows is the registered trademarks of Microsoft[®] Corporation.
- The company names and product names in this Owner's Manual are the trademarks or registered trademarks of their respective companies.

Congratulations and thank you for purchasing the Yamaha PSR-E313/YPT-310 PORTATONE!

Please read this owner's manual carefully before using the instrument in order to take full advantage of its various features. Make sure to keep this manual in a safe and handy place even after you finish reading, and refer to it often when you need to better understand an operation or function.

Formats and functions



GM System Level 1

"GM System Level 1" is an addition to the MIDI standard which ensures that any GM-compatible music data can be accurately played by any GM-compatible tone generator, regardless of manufacturer. The GM mark is affixed to all software and hardware products that support GM System Level.



XGlite

As its name implies, "XGlite" is a simplified version of Yamaha's high-quality XG tone generation format. Naturally, you can play back any XG song data using an XGlite tone generator. However, keep in mind that some songs may play back differently compared to the original data, due to the reduced set of control parameters and effects.

Stereo Sampled Piano

The instrument has a special Portable Grand Piano Voice—created by state-of-the-art stereo sampling technology and using Yamaha's sophisticated AWM (Advanced Wave memory) tone generation system.



Yamaha Education Suite 5

The instrument features the new Yamaha Education Suite—a set of learning tools that utilize the latest technology to make studying and practicing music more fun and fulfilling than ever before!



Touch Response

The exceptionally natural Touch Response feature, with a convenient front panel on/off switch, gives you maximum expressive level control over the voices.



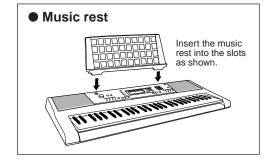
Style File

The Style File Format combines all of Yamaha's auto accompaniment know-how into a single unified format.

Supplied Accessories

The PSR-E313/YPT-310 package includes the following items. Please check that you have them all.

- Music rest
- Owner's manual (this book)



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Be sure to do the following operations BEFORE turning on the power.

Power Requirements

Although the instrument will run either from an optional AC adaptor or batteries, Yamaha recommends use of an AC adaptor whenever possible. An AC adaptor is more environmentally friendly than batteries and does not deplete resources.

Using an AC Power Adaptor -

Make sure that the power of the instrument is off (the backlit display is off).

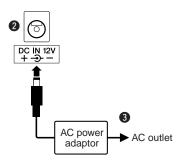
\Lambda WARNING

 Use the specified adaptor (PA-130 or an equivalent recommended by Yamaha) only. The use of other adaptors may result in irreparable damage to both the adaptor and the instrument.

Onnect the AC power adaptor to the power supply jack.

3 Plug the AC adaptor into an AC outlet.

• Unplug the AC Power Adaptor when not using the instrument, or during electrical storms.



Using Batteries -

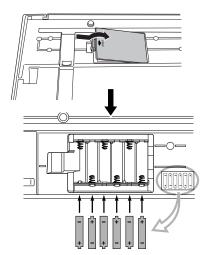
• Open the battery compartment cover located on the instrument's bottom panel.

2 Insert the six new alkaline batteries, being careful to follow the polarity markings on the side of the compartment.

Replace the compartment cover, making sure that it locks firmly in place.

A CAUTION

 Never connect or disconnect the AC power adaptor when the batteries are installed in the instrument and the power is on. Doing so will turn the power off, possibly resulting in loss of the data being transferred and the data currently in the transfer destination during transferring or recording a data.



For battery operation the instrument requires six 1.5V "AA" size, LR6 or equivalent batteries. (Alkaline batteries are recommended.) When battery power becomes too low for proper operation, the volume may be reduced, the sound may be distorted, and other problems may occur. When this happens, make sure to replace all batteries, following the precautions listed below.

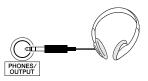
If necessary, also make sure to save all important User data (see page 31), since custom panel settings are lost when the batteries are removed.

A CAUTION

- Use alkaline batteries for this instrument. Other types of batteries (including rechargeable batteries) may have sudden drops of power when battery power becomes low, possibly resulting in loss of data in the flash memory.
- Make sure to install the batteries with the proper orientation, maintaining the correct polarity (as shown). Incorrect battery installation may result in heat, fire and/or leaking of corrosive chemicals.
- When the batteries run down, replace them with a complete set of six new batteries. NEVER mix old and new batteries. Do not use different kinds of batteries (e.g. alkaline and manganese) at the same time.
- If the instrument is not to be in use for a long time, remove the batteries from it, in order to prevent possible fluid leakage from the battery.
- Please use the power adaptor when transferring data to flash memory. Batteries (including rechargeable types) can be drained rapidly by this type of operation. If the batteries do become drained during a data transfer, both the data being transferred and the data currently in the transfer destination will be lost.

Make all necessary connections BEFORE turning the power on.

Connecting headphones (PHONES/OUTPUT Jack)



The PSR-E313/YPT-310 speakers are automatically shut off when a plug is inserted into this jack. The PHONES/OUTPUT jack also functions as an external output.

You can connect the PHONES/OUTPUT jack to a keyboard amplifier, stereo system, mixer, tape recorder, or other line-level audio device to send the instrument's output signal to that device.

A WARNING

 Avoid listening with the headphones at high volume for long periods of time; doing so may not only result in ear fatigue, it may be damaging to your hearing.

A CAUTION

 To prevent damage to the speakers, set the volume of the external devices at the minimum setting and turn power off the devices before connecting them. Failure to observe these precautions may result in electric shock or equipment damage. Also, be sure to set the volumes of all devices at their minimum levels and gradually raise the volume controls while playing the instrument to set the desired listening level.

Connecting a footswitch (SUSTAIN Jack)

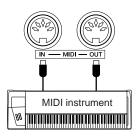


The sustain function lets you produce a natural sustain as you play by pressing an optional footswitch. Plug the Yamaha FC4 or FC5 footswitch into this jack and use it to switch sustain on and off.

NOTE

- Make sure that the footswitch plug is properly connected to the SUSTAIN jack before turning on the power.
- Do not press the footswitch while turning the power on. Doing this changes the recognized polarity of the footswitch, resulting in reversed footswitch operation.

Using the MIDI Terminals



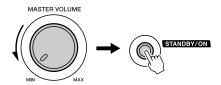
The instrument also features MIDI terminals, allowing you to interface the instrument with other MIDI instruments or computers. (For more information, see page 61.)



• MIDI cables (sold separately) must be used for connecting to MIDI devices. They can be bought at music stores, etc.

Turn on the power

Turn down the volume by turning the [MASTER VOLUME] control to the left and press the [STANDBY/ON] switch to turn on the power. Pressing the switch again turns the power off.



Backup data in the flash memory (page 31) is loaded to the instrument when the power is turned on. If no backup data exists on flash memory, all instrument settings are restored to the initial factory defaults when the power is turned on.

<u> CAUTION</u>

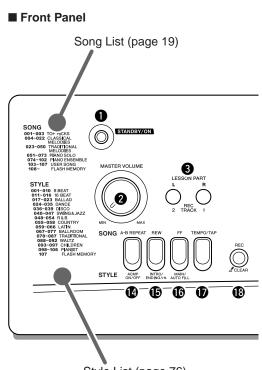
 When using a power adaptor, even when the power is off, a small amount of electricity is still being consumed by the instrument. When you are not using the instrument for a long time, make sure to unplug the AC power adaptor from the wall AC outlet, and/or remove the batteries from the instrument.

A CAUTION

 Never attempt to turn the power off when a "Writing!" message is shown in the display. Doing so can damage the flash memory and result in a loss of data.

Panel Controls and Terminals

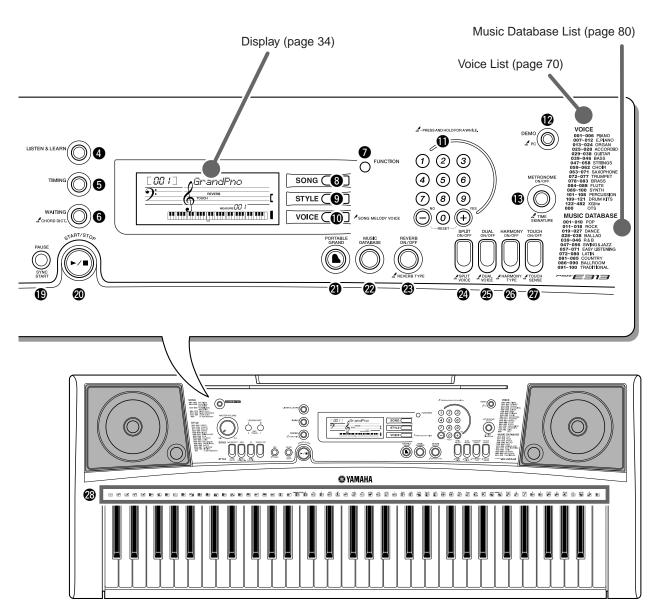
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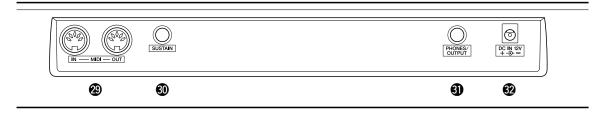
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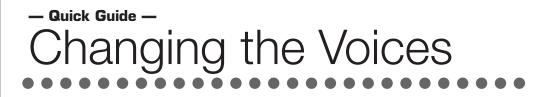
DC IN 12V jack.....page 8



Rear Panel







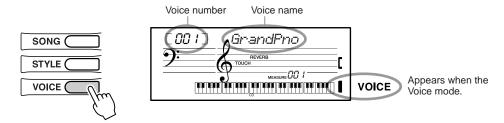
Try playing a variety of instrument Voices

In addition to the piano Voice, a wide variety of other instrument Voices can be selected and played, including guitar, trumpet and flute. The Voice selected here becomes the Main Voice.

1

Press the [VOICE] button.

The Voice number and name are displayed.



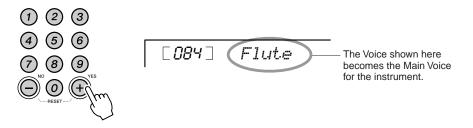


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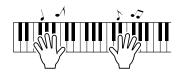
Select a Voice.

Select the desired Voice by using the number buttons [0]–[9], [+], [-].

Refer to the Voice List on page 70.



Play the keyboard.



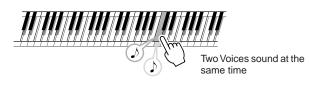
Try selecting and playing different Voices.

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Quick Guide

Playing Two Voices Simultaneously—Dual

You can select a second Voice which will play in addition to the Main Voice selected on the previous page. This second Voice is known as the Dual Voice.



Play the Dual Voice

Press the [DUAL ON/OFF] button to turn the Dual function on.

When Dual is on, you can play a Dual Voice in a layer with the Main Voice.

To turn the Dual Voice off and play only the Main Voice, press the [DUAL ON/OFF] button again.

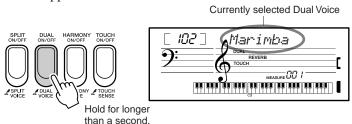


Selecting a Dual Voice

The best-suited Dual Voice is automatically selected whenever you turn Dual on, but you can select any of the available Dual Voices.

Press and hold the [DUAL ON/OFF] button for longer than a second.

"D. Voice" appears in the display for a few seconds, then the Dual Voice will appear.



NOTE

 You can also access the Dual Voice setting display by pressing the [FUNC-TION] button several times, then selecting Dual Voice.

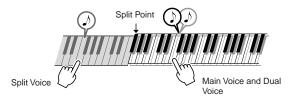


Select a Dual Voice.

Select the desired Dual Voice by using the number buttons [0]–[9], [+], [-]. Refer to the Voice List on page 70.

Playing Different Voices with the Left and Right Hands—Split

In the Split mode you can play different Voices to the left and right of the keyboard "Split Point." The main and Dual Voices can be played to the right of the Split Point, while the Voice played to the left of the Split Point is known as the "Split Voice"

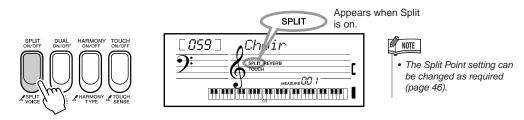


Play the Split Voice

Press the [SPLIT ON/OFF] button to turn the Split function on.

When Split is on you can play a Split Voice to the left of the Split Point.

When you don't want to play a Split Voice, press the [SPLIT ON/ OFF] button to turn Split off.



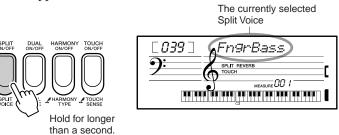
Select a Split Voice

You can select a different Split Voice by following the procedure outlined below.

]

Press and hold the [SPLIT ON/OFF] button for longer than a second.

"S. Voice" appears in the display for a few seconds, then the Split Voice will appear.



NOTE

 You can also access the Split Voice setting display by pressing the [FUNC-TION] button several times, then selecting the Split Voice.

Select a Split Voice

Select the desired Split Voice by using the number buttons [0]–[9], [+], [-]. Refer to the Voice List on page 70.

Step 1 Changing the Voices

Playing the Grand Piano Voice

When you simply want to play a piano Voice, all you have to do is press one convenient button.

Press the [PORTABLE GRAND] button.

The Voice "Grand Piano 001" will automatically be selected as the Main Voice.



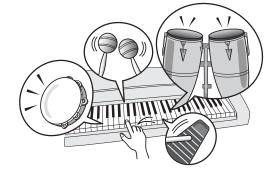
Drum kits

Drum kits are collections of drum and percussion instruments.

When drum kits (Voice number 109–121) are selected, you can play different percussion sounds directly from the keyboard.

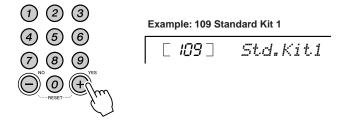
1 Press the [VOICE] button.





Select the desired Drum kit.

Select one of the Voice numbers from 109–121 by using the number buttons [0]–[9], [+], [-].



Drum Kit List

109	Standard Kit 1	116	Jazz Kit
110	Standard Kit 2	117	Brush Kit
111	Room Kit	118	Symphony Kit
112	Rock Kit	119	SFX Kit 1
113	Electronic Kit	120	SFX Kit 2
114	Analog Kit	121	Sound Effect Kit
115	Dance Kit		

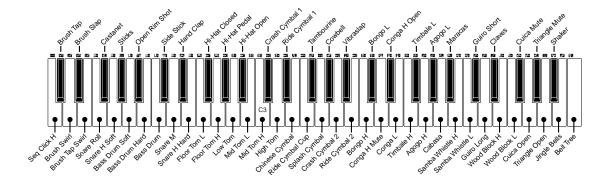




You'll hear bongo drums, congas, maracas, and more—a comprehensive variety of drum and percussion sounds. Details on the instruments and key assignments of each drum kit can be found in the Drum Kit List on page 76.

• Example: 109 Standard Kit 1

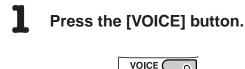
To check which "Standard Kit 1" percussion sounds are assigned to each key, look at the icons printed above the keys.







This instrument also includes a wide range of unique sound effects. Try out each key and enjoy the sounds! As you try out the various keys you'll hear the sound of a dog barking, running water, a creaking door and many other unique effects.



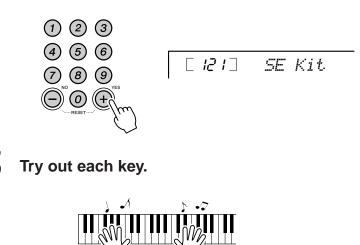






Select the Sound Effect kit.

Select Voice number 121 by using the number buttons [0]–[9], [+], [-].



Try out each key and enjoy the sounds. Don't forget the black keys!

You'll be able to play various sound effects from the keyboard: barking, braying, yelling, and much more.

After trying out these sounds, press the [PORTABLE GRAND] button to reset the instrument Voice to the default setting of Voice "001 Grand Piano."



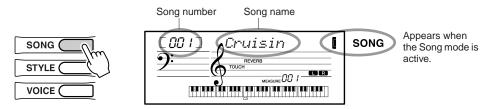
Quick Guide laying Songs

Select and Listen to a Specific Song

This instrument has 102 built-in Songs. Listening to a Song.

Press the [SONG] button.

The Song number and name are displayed.





3

Select the desired Song by using the number buttons [0]–[9], [+], [-].

Refer to the Song List on next page.



001–102	Built in Songs (see next page)	
103–107	User Songs (Songs you record yourself).	
108–	Songs transferred from a computer on page 67	

Press the [START/STOP] button.

The Song will begin playing. You can stop playback at any time by pressing the [START/ STOP] button.



NOTE

 You can play Songs recorded from the instrument or transferred from a computer. The procedure for playing these Songs is the same as that of the built-in Songs.

• Other Operations
SONG A-B REPEAT REW FF TEMPO/TAP
[REW] button
[FF] button
[PAUSE] button Temporarily stops playback. Press this button a second time to resume playback from the point at which it was stopped.

• Using the [DEMO] button

Press the [DEMO] button to play Songs 001, 002, 003, 004, 025, 041, 064, 084, 081, in sequence, and playback will continue repeatedly starting again from the first Song 001.



You can stop playback at any time by pressing the [DEMO] button.

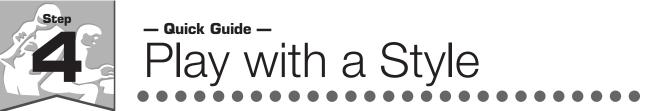
Song List

No.	Song Name	No.	Song Name	No.	Song Name
	TOP PICKS	036	Yankee Doodle (Traditional)	069	Pastorale (J. F. Burgmüller)
001	Cruisin	037	Muffin Man (Traditional)	070	The Last Rose of Summer
002	Jessica	038	Ten Little Indians (Traditional)	070	(Traditional)
003	Castaway		When the Saints Go Marching In	071	Annie Laurie (Traditional)
	CLASSICAL MELODIES	039	(Traditional)	072	Jeanie with the Light Brown Hair
	Waltz (The Sleeping Beauty)	040	Little Brown Jug (Traditional)	072	(S. C. Foster)
004*	(P. I. Tchaikovsky)	041	Down by the Riverside (Traditional)	073	The Entertainer (S. Joplin)
005*	Air (Orchestral Suite) (J. S. Bach)	0.40	When Irish Eyes Are Smiling		PIANO ENSEMBLE
006*	Minuetto/Boccherini (L. Boccherini)	042	(E. R. Ball)	074	Londonderry Air (Traditional)
007*	Siciliano/J. S. Bach (J. S. Bach)	043	Oh! Susanna (S. C. Foster)	075	Die Lorelei (F. Silcher)
008*	Menuet (L'Arlésienne) (G. Bizet)	044	Battle Hymn of the Republic	076	Home Sweet Home (H. R. Bishop)
	Slavonic Dances op.72-2	-	(Traditional)	077	Old Folks at Home (S. C. Foster)
009*	(A. Dvořák)	045	American Patrol (F. W. Meacham)	078	Scarborough Fair (Traditional)
04.0*	Largo (From the New World)	046	I've Been Working on the Railroad	079	Loch Lomond (Traditional)
010*	(A. Ďvořák)		(Traditional)	000	Twinkle Twinkle Little Star
011*	Pizzicato Polka (J. Strauss II)	047	My Darling Clementine (Traditional)	080	(Traditional)
012*	Romanze/Beethoven	048	Camptown Races (S. C. Foster)	081	Three Blind Mice (Traditional)
• · -	(L. v. Beethoven)	049	Red River Valley (Traditional)	082	Wenn ich ein Vöglein wär
013*	Swan Lake (P. I. Tchaikovsky)	050	Jingle Bells (J. S. Pierpont)	002	(Traditional)
014*	Sicilienne/Fauré (G. Fauré)		PIANO SOLO	083	Believe Me If All Those Endearing
015*	Méditation (Thaïs) (J. Massenet)	051	Für Elise (L. v. Beethoven)		Young Charms (Traditional)
016*	Serenade/Haydn (F. J. Haydn)	052	Valse op.64-1 "Petit Chien"	084	Funiculi Funicula (L. Denza)
017*	Grand March (Aida) (G. Verdi)	0.02	(F. Chopin)	085	Nocturne op.9-2 (F. Chopin)
018*	Danza dell'Ore (La Gioconda) (A. Ponchielli)	053	Menuett/Beethoven (L. v. Beethoven)	086	Etude op.10-3 "Chanson de L'adieu" (F. Chopin)
019*	Le Cygne (Le Carnaval des Animaux) (C. Saint-Saëns)	054	Andante grazioso (Sonate K.331) (W. A. Mozart)	087	Ave Maria/J. S. Bach - Gounod (J. S. Bach/C. F. Gounod)
000*	L'éléphant (Le Carnaval des	055	24 Preludes op.28-7 (F. Chopin)	088	Jesus bleibet meine Freude
020*	Animaux) (C. Saint-Saëns)	056	Melodie (Album für die Jugend)	000	(J. S. Bach)
021*	Fossiles (Le Carnaval des Animaux)	050	(R. Schumann)	089	Menuett BWV. Anh.114 (J. S. Bach)
021	(C. Saint-Saëns) Wachet auf, ruft uns die Stimme	057	Fröhlicher Landmann (Album für die Jugend) (R. Schumann)	090	Piano Concerto No.21 2nd mov. (W. A. Mozart)
022*	BWV. 645 (J. S. Bach) TRADITIONAL MELODIES	058	Von fremden Ländern und Menschen (Kinderszenen)	091	Der Vogelfänger bin ich ja (W. A. Mozart)
023*	Greensleeves (Traditional)		(R. Schumann)	-	Romanze (Serenade K.525)
023	Beautiful Dreamer (S. C. Foster)	050	Träumerei (Kinderszenen)	092	(W. A. Mozart)
024	Amazing Grace (Traditional)	059	(R. Schumann)	000	Die Schlittenfahrt K.605-3
		060	Thema (Impromptus D.935-3)	093	(W. A. Mozart)
026* 027*	Ring de Banjo (S. C. Foster) O du lieber Augustin (Traditional)		(F. Schubert)	094	Ave Verum Corpus (W. A. Mozart)
-		061	Menuett BWV. Anh.116 (J. S. Bach)	095	Liebesträume Nr.3 (F. Liszt)
028*	London Bridge (Traditional) Aura Lee (Traditional)	062	Invention Nr.1 (J. S. Bach)	096	O Mio Babbino Caro (G. Puccini)
029*		063	Gavotte/J. S. Bach (J. S. Bach)	097	Chanson du Toreador (G. Bizet)
030*	Aloha Oe (Q. Liliuokalani)	064	Arietta/Grieg (E. Grieg)	098	Frühlingslied (F. Mendelssohn)
031	Turkey in the Straw (Traditional)	065	To a Wild Rose (E. A. MacDowell)	099	Ode to Joy (L. v. Beethoven)
032	On Top of Old Smoky (Traditional)	066	Tango/Albeniz (I. Albéniz)	100	O Christmas Tree (Traditional)
033	Grandfather's Clock (H. C. Work)	067	La Fille aux Cheveux de Lin	101	Deck the Halls (Traditional)
034	Pop Goes the Weasel (Traditional)	100	(C. A. Debussy)	102	Silent Night (F. Gruber)
035	Mary Had a Little Lamb (Traditional)	068	La Chevaleresque (J. F. Burgmüller)	102	

• Songs with an asterisk mark (*) are ones which do not have a left part. Therefore, the lesson is applicable only for the right hand.

Some of the classic and/or traditional songs have been edited for length or for ease in learning, and may not be exactly the same as the original.
A Song Book is available that includes scores for all internal songs (excepting Songs 1–3). To obtain the Song Book, complete the user registration at the following website.

http://music.yamaha.com/registration/



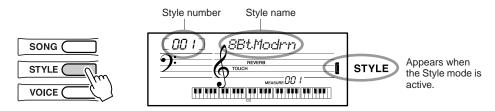
Selecting a rhythm of a Style

The Style feature provides backing and rhythm parts in a wide variety of musical categories, including rock, blues, techno and much more. Here's how to play a rhythm of a Style. The rhythm sound consists of percussion instruments.

1

Press the [STYLE] button.

The Style number and name are displayed.





Select a Style.

Select the desired Style by using the number buttons [0]–[9], [+], [-].

Refer to the Style List on page 76.

You can also select commercially available Style Files. To do this load the Style Files from the computer to the instrument, and then register the style data starting with to style number 107. (Refer to the information on transferring data on page 67 and registering styles on page 54.) You can play Style Files in the same way that you play the internal styles. If the Style File has not been registered, "No Data" will be displayed when selecting style number 107.

Press the [START/STOP] button.

The Style rhythm will start.

You can stop playback at any time by pressing the [START/STOP] button.







 Since the Pianist category Styles (098–106) have no rhythm parts, no sound will be produced if you start rhythm-only playback. To use these Styles, turn on the auto accompaniment and play the keyboard as described on pages 21–22. (The bass and chord accompaniment parts will sound.)

Step 4 Play with a Style

Playing with a Style

On the previous page, you've learned how to select your favorite rhythm of a Style. Here, you'll learn how to expand on that rhythm with bass and chord backing, and use all of it as your accompaniment as you play.

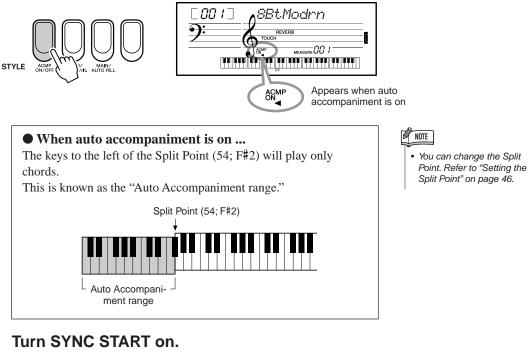


Press the [STYLE] button and then select a Style.

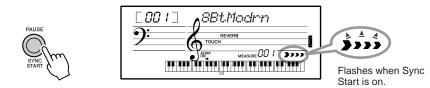


Turn auto accompaniment on.

Press the [ACMP ON/OFF] button. Press the [ACMP ON/OFF] button again to turn the auto accompaniment off.



Press the [SYNC START] button.

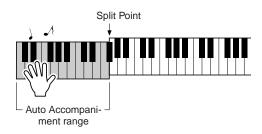


When the Sync Start standby mode is engaged, Style playback will begin as soon as you play a chord in the accompaniment range of the keyboard. You can turn off Sync Start standby mode by pressing the [SYNC START] button.

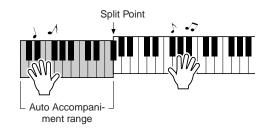
4 The Style will begin playing as soon as you play a chord in the accompaniment range of the keyboard.

Not sure how to play chords? No problem! This instrument is capable of playing chords even if you only play one key. Try playing one, two or three keys (any notes will do) in the auto accompaniment range of the keyboard. Different keys will produce different results.

Refer to page 55 for detailed instructions for playing chords.



Try playing other chords with your left hand and play a melody with your right hand.



6 You can stop playback at any time by pressing the [START/STOP] button.

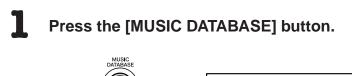


5



– Quick Guide – Play Using the Music Database

You want to play music in your favorite style, but you're not sure how to select the best voice and style for the type of music you want to play ... simply select the appropriate style from the Music Database. The panel settings will automatically be adjusted for the ideal combination of sounds and style!



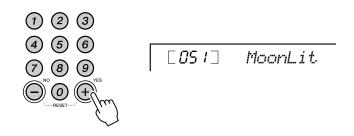
[00]] AlvFever

A Music Database name will appear in the display.

Select a Music Database.

Referring to the list on the panel or Music Database List on page 80 of the manual, use the number buttons [0]–[9], [+], [-] to select a music database. Select one that matches the image of the song you intend to play.

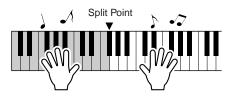
For this example select the "051 MoonLit".





Play the chords with your left hand and melody with your right.

The jazz style will start playing when you play a left-hand chord to the left of the split point (page 46). Refer to page 55 for information about playing chords.



Press the [START/STOP] button to stop playback.





Start the metronome

The instrument includes a metronome with adjustable tempo and time signature. Play and set the tempo that is most comfortable for you.

Starting the metronome

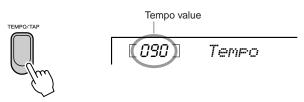
Turn the metronome on and start it by pressing the [METRONOME ON/ OFF] button.

To stop the metronome, press the [METRONOME ON/OFF] button again.



Setting the metronome tempo

Press the [TEMPO/TAP] button to display the tempo.





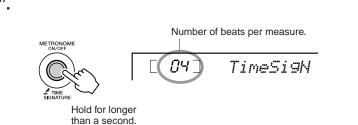
Set the metronome tempo by using the number buttons [0]–[9], [+], [-].

The tempo can be adjusted between 11–280.



In this example we'll set up a 5/8 time signature.

Press and hold the [METRONOME ON/OFF] button for longer than a second to select the number of beats per measure function "Time-SigN".



Use the number buttons [0]–[9], [+], [-] to select the number of beats per measure.

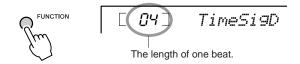
A chime will sound on the first beat of each measure while the other beats will click. All beats will simply click with no chime at the beginning of each measure if you set this parameter to "00". The available range is from 0 through 60. Select 5 for this example.



• The metronome time signature will synchronize to a style or song that is playing, so these parameters cannot be changed while a style or song is playing.

Press the [FUNCTION] button a number of times to select the beat length function "TimeSigD".

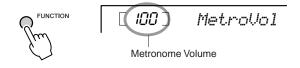
The currently selected beat length will be displayed.



4 Use the [+], [-] to select the beat length.

Select the required length for each beat: 2, 4, 8, or 16 (half note, quarter note, eighth note, or 16^{th} note). Select 8 for this example.

Press the [FUNCTION] button a number of times until "MetroVol" appears.





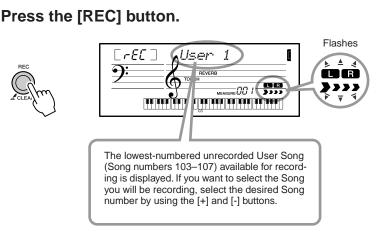
Set the metronome volume by using the number buttons [0]–[9], [+], [-].



– Quick Guide – Record your own performance

Recording Your Performance

You can record up to five of your own performances as User Songs (User 1–5: Song numbers 103–107). Think of each User Song as a kind of basket or drawer for storing your recording. Remember that you can also record a Style (containing chord changes) along with your own performance.



NOTE

 A total of approximately 10,000 notes or 5,500 chord changes can be recorded to the five User Songs.

NOTE

• Accompaniment cannot be turned on or off once the [REC] button is pressed. Step 7 Record your own performance

Quick Guide

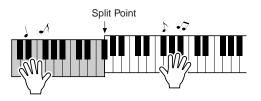
After you've selected the desired User Song for recording, you can select a Style to be recorded as well. To do this, press the [STYLE] button and select the Style number while the ACMP indication is on.

You can turn off the Record mode by pressing the [REC] button again (and stop flashing).



Start recording.

When you play the keyboard, recording will begin.



By playing keys to the left of the Split Point when the Auto Accompaniment is set to on, the Style starts sounding and is recorded with your performance.

When Auto Accompaniment is set to off, only your keyboard performance is recorded.

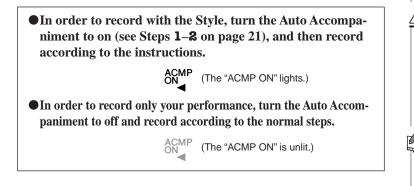
 If all User Songs (Song numbers 103–107) contain recorded data, Song 103 will automatically be selected. In this case, you will record over and erase any previous data in Song 103, so be careful that you won't be erasing any material you want to keep!

3

Stop recording.

Pressing the [START/STOP] button stops recording and writes the data to the User Song. (A "Writing!" message is shown.)

To playback the newly recorded performance, press the [START/STOP] button.

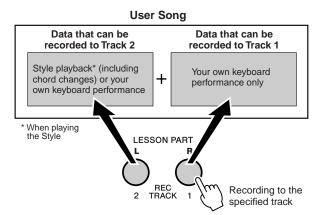


Recording to a specified track

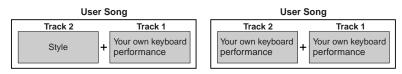
The User Songs are organized into two tracks: Track 1 and Track 2. You can specify the track you want to record to.

About track recording

If you start recording by specifying a track, the track will be overwritten (existing data in the track is deleted and replaced with the new recording).



Only your keyboard performance can be recorded to Track 1. Either a Style or your performance can be recorded to Track 2, resulting in a User Song like that depicted below.



<u>A</u> CAUTION

 Never attempt to turn the power off when a "Writing!" message is shown in the display. Doing so can damage the flash memory and result in a loss of data.

A CAUTION

 Keep in mind that any kind of power failure during recording—such as the power being turned off, the AC adaptor being plugged/unplugged or the batteries running down will result in data loss.

NOTE

• Use the Musicsoft Downloader to backup the User Songs to a computer (page 65).

NOTE

 Record following the steps in the previous page, and your performance will be recorded to Track 1 and the Style (if you are playing one) will be recorded to Track 2.

NOTE

- You cannot record the Reverb Level, metronome click, or the Transpose and Tuning settings.
- The settings and buttons below cannot be changed, or if changed, the new settings cannot be recorded if entered during the recording process.
 - ACMP ON/OFF, split point, reverb type, chorus type, harmony type, [FUNCTION] button, [PORTABLE GRAND] button, [SOUND EFFECT KIT] button.

28

Turn ACMP (auto accompaniment) on or off, depending on what you want to record.

If you want to record Style playback, turn ACMP on. If you want to record only your own keyboard performance, turn ACMP off.

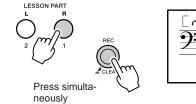


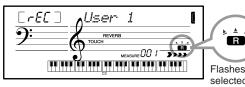
Specify the track you want to record.

Specify the track 2 when you want to record the Style. When you want to record your own keyboard performance, you can specify either track.

• Recording to Track 1 —

Press the [REC] button and [REC TRACK 1] button simultaneously.





Flashes when track 1 is selected for recording.

Keep in mind that both Tracks

without specifying the tracks.The both "L" and "R" flashes.

this indicates that you have specified Track 1 when the

Auto Accompaniment is on. If vou want to record vour own

[TRACK 2] button to stop the "L" flashing. If you want to

performance, press the

record a Style, press the

[REC] button to cancel the

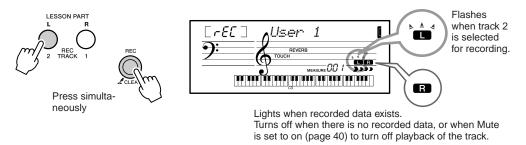
recording, and repeat the procedure from the beginning.

1 and 2 will be overwritten with new data if you record

NOTE

• Recording to Track 2 -

Press the [REC] button and [REC TRACK 2] button simultaneously.



Press the [+], [-] buttons to select the User Song you want to record.

[rEC] User 3

If you want to record Style playback to Track 2, press the [STYLE] button and select the desired Style.

Start recording

Perform steps **2** and **3** on pages 27–28.

By playing keys to the left of the Split Point when the Auto Accompaniment is set to on, the Style starts sounding and is recorded. Only your performance is recorded by playing the keyboard (any key is OK) when the Auto Accompaniment is set to off. NOTE

 You can record a new track while listening to a previously recorded track (the track indication will appear). You can also mute recorded tracks (the track will disappear) while recording a new track by pressing the desired track button.

I

Deleting User Songs

Deleting an entire User Song



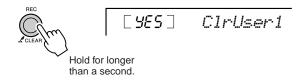
Press the [SONG] button and select the User Song you want to delete by using the number buttons [0]–[9], [+], [-].





Press and hold the [REC] button for longer than a second.

The Song Delete display appears.

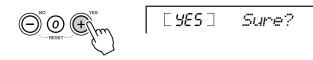


You can cancel the delete operation by pressing the [-/NO] button.



Press the [+/YES] button.

A confirmation message will appear on the display.



You can cancel the delete operation by pressing the [-/NO] button.



Press the [+/YES] button to delete the Song.

"Writing!" message will appear while the track is being deleted.



Backup and Initialization

Backup

The following settings are always backed up, and are maintained even when the power is turned off. If you want to initialize the settings, use the Initialize operation as explained below. You can also save the settings as backup data to your computer, by using the Musicsoft Downloader (MSD) software. Refer to the section "Transferring a backup file from the PSR-E313/YPT-310 to a computer" on page 68.

• Parameters that are saved in backup:

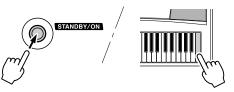
- User Songs
- Style number 107
- Touch Response on/off setting
- The following Function settings: Tuning, Split Point, Touch Sensitivity, Style Volume, Song Volume, Metronome Volume, Demo Cancel, Panel Sustain

Initialization

This function erases all backup data in the instrument's flash memory and restores the initial default settings. The following initialization procedures are provided.

Backup Clear

To clear data backed up to the internal flash memory (described above), turn the power on by pressing the [STANDBY/ON] switch while holding the highest white key on the keyboard. The backed up data will be erased and the default values restored.



ACAUTION

 When you execute the Backup Clear operation, backup parameters will be cleared.

Flash Clear

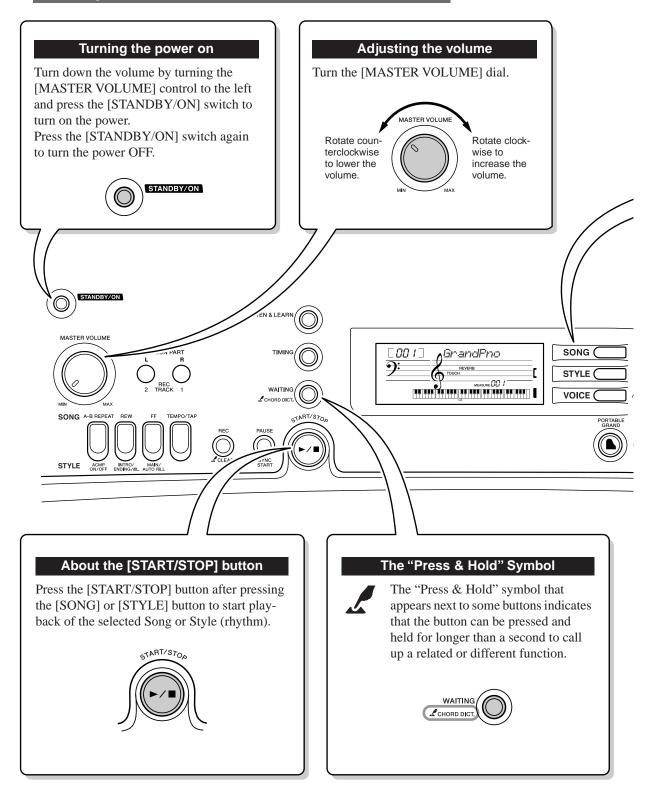
To clear Song data and Style data that has been transferred to the internal flash memory from a computer, simultaneously hold down the highest white key and the three highest black keys on the keyboard and turn the power on by pressing the [STANDBY/ON] switch.



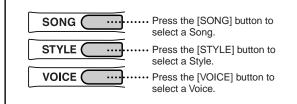
 When you execute the Flash Clear operation, Song data and Style data you have purchased and downloaded will also be cleared. Make sure to save your important data by transferring to a computer using Musicsoft Downloader (page 68).

Basic Operation and Displays

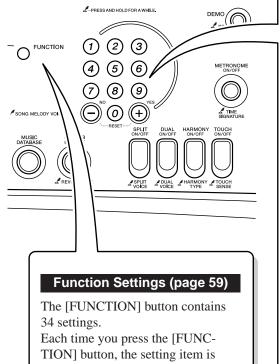
Basic Operation



Press a button to select a basic function



When you select a basic function, the name and number of the currently selected Song, Style and Voice is shown. From this display, you can select the desired Song, Style or Voice.



TION] button, the setting item is selected in sequence, and the value of the selected item can be changed in the display.

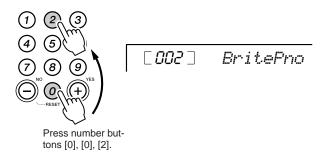


Set the number or value

• Number buttons [0]–[9]

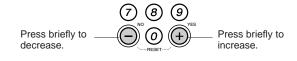
The number buttons can be used to directly enter a Song, Style or Voice number or parameter value. For numbers that start with one or two zeroes, the first zeroes can be omitted

Example: Selecting Voice 002, Bright Piano.



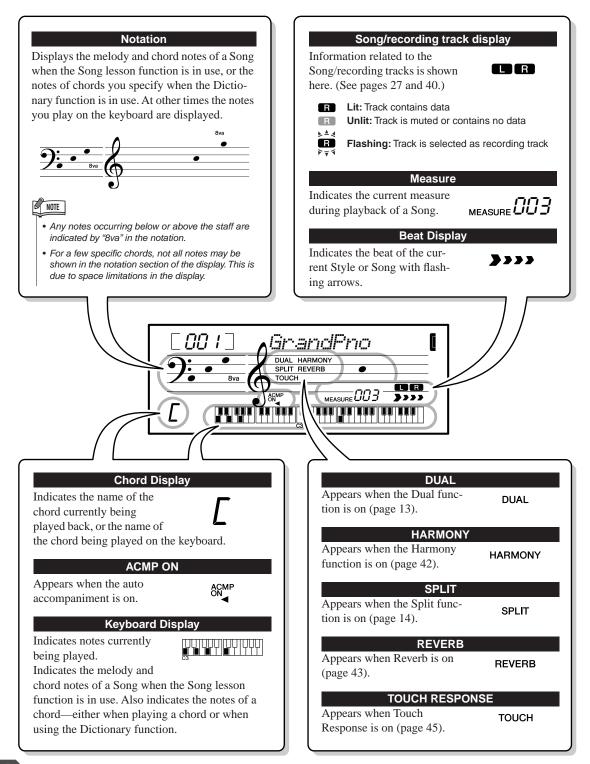
• [+], [-] buttons

Press the [+] button briefly to increase the value by 1, or press the [-] button briefly to decrease the value by 1. Press and hold either button to continuously increase or decrease the value in the corresponding direction.



Display

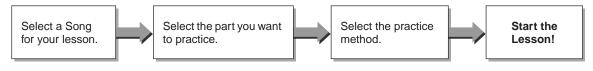
The Main display shows all of the current basic settings for Song, Style and Voice. It also includes a range of indicators that show the on/off status for various functions.



Yamaha Education Suite 5

You can select any Song you like and use it for a left-hand, right-hand, or both-hands lesson. Song Lesson lets you learn how to play Songs in three easy steps. Songs that can be used with the Lesson feature include Songs transferred from a computer to flash memory (SMF Format 0 only; see page 65). The procedure for transferring songs are described on page 67.

Lesson Flow



The practice methods:

Lesson 1 (Listen & Learn)

There's no need to play the keyboard in Lesson 1. The model melody/chords (in other words, the musical material you should learn) of the part you selected will sound. Listen to it carefully and learn it well.



NOTE

Step 2.

 User Songs cannot be used for the lesson.

You cannot select the part

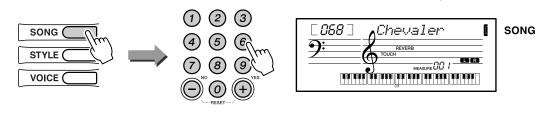
during Song playback before Lesson 1 starts. If a

Song is currently being

played back, stop the Song first, then continue from

Select the desired Song for your lesson.

Press the [SONG] button, and then select a Song (referring to the Song list on page 19) by using the number buttons [0]–[9], [+] and [-]. If you want to practice a Song you've transferred from a computer, select one of the Songs beginning from Song number 108.

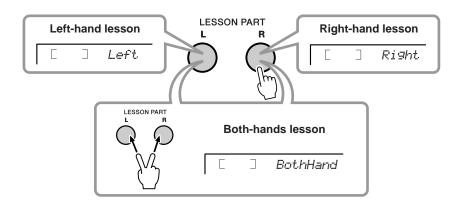


The instrument includes 102 built in Songs. Some Songs (as shown below) are intended for use as right-hand lessons, and cannot be used for left-hand or both-hands lessons.

• Songs for right-hand lesson Song numbers: 004–030

2 Select the part you want to practice.

Press the [R] button for a right-hand lesson, [L] button for a left-hand lesson, or press both the [R] and [L] buttons simultaneously for a both-hands lesson. The selected part is displayed.



A "No LPart" message is shown in the display if you select the left part in one of the Songs 004–030, which do not have left part data. These Songs cannot be used for left-hand or both-hands lessons.

NOTE

 For songs transferred from a computer, the "No LPart" indication does not appear, even when there is no left hand part in the song.

3 Start Lesson 1.

Press the [LISTEN & LEARN] button to start Lesson 1. The melody of the part you selected in Step **2** will sound. Listen to it carefully and learn it well.



The notation and key positions of the mode melody are shown in the display.

4 Stop the Lesson mode.

You can stop the Lesson mode at any time by pressing the [START/ STOP] button.

NOTE

- Even after Lesson 1 has started and the Song is playing, you can still select the part.
- When the melody Voice of the Song is changed, the key position shown in the display may be shifted (in octave units), depending on the Voice selected.
- You can select Lessons 1–3 by pressing the [LISTEN & LEARN], [TIMING] and [WAITING] buttons, respectively.

Lesson 2 (Timing)

In this lesson, try playing the notes with the correct timing. Simply concentrate on playing each note in time with the rhythmic accompaniment. The correct notes sound even if you play wrong notes as long as you play in time with the rhythm.

- **1** Select a Song for your lesson.
- **2** Select the part you want to practice.



3 Start Lesson 2.

Press the [TIMING] button to start Lesson 2.





NOTE

- You cannot use Dual or Split Voices during lessons.
- The Split Point is fixed and it cannot be changed. For the left-hand lesson, it is fixed at 59 or B2; for the left-hand chord lesson, it is fixed at 54 or F#2.

- 10	
M	NOTE
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• You cannot select the part during Song playback before Lesson 2 starts. If a Song is currently being played back, stop the Song first, then continue from Step **2**.

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4	NOTE	
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• Even after Lesson 2 has started and the Song is playing, you can still select the part.

Play the notes shown in the display.

In Lesson 2, simply play each note in time with the music.

4 Stop the Lesson mode.

You can stop the Lesson mode at any time by pressing the [START/STOP] button.



Grade

When the lesson Song has played all the way through in Lesson mode 2 or 3, your performance will be evaluated in four levels: OK, Good, Very Good, or Excellent.

OK Good Very Good Excellent

Lesson 3 (Waiting)

In this mode, try playing the correct notes. The notes you should play appear in the score and the keyboard on the display. The Song pauses until you play the right note.

Select a Song for your lesson.
 Select the part you want to practice.

3 Start Lesson 3.

Press the [WAITING] button to start Lesson 3.

Play the notes shown in the display. Try playing the correct notes.

4 Stop the Lesson mode.

You can stop the Lesson mode at any time by pressing the [START/ STOP] button.



100	NOTE
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 You cannot select the part during Song playback before Lesson 3 starts. If a Song is currently being played back, stop the Song first, then continue from Step 2.



• Even after Lesson 3 has started and the Song is playing, you can still select the part.

Song settings

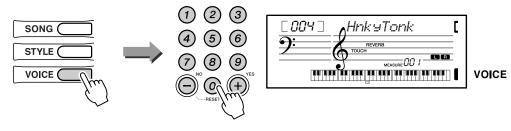
Changing the Melody Voice

You can change a Song's melody Voice to any other Voice you prefer.

Select the Song and play it.

Refer to the section "Playing Songs" on page 18.

2 Select a desired Voice by using the number buttons [0]– [9], [+], [-].



The selected Voice sounds when you play the keyboard.

If a Song has played through and stopped during this procedure, press the [START/STOP] button to start playback again.

3 Press and hold the [VOICE] button for longer than a second.

"SONG MELODY VOICE" appears in the display for a few seconds, indicating that the Voice selected in Step **2** has replaced the Song's original melody Voice.



Song Volume

This procedure allows you to adjust the balance between Song playback and the notes you play on the keyboard by setting the volume of the playback sound.

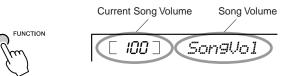
1 Press the [SONG] button.



NOTE

 You cannot change the melody Voice of a User Song.

2 Press the [FUNCTION] button a number of times until "SongVol" appears.



3 Set the Song Volume by pressing the number buttons [0]–[9], [+], [-].





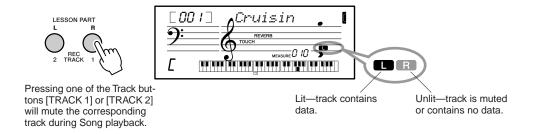
 Press the [+] and [-] buttons simultaneously to instantly reset the value to its default setting (100).

Mute

You can mute Track 1 or Track 2 during Song playback.

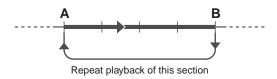
- Track 1 can be muted by pressing the [REC TRACK 1] button during Song playback.
- Track 2 can be muted by pressing the [REC TRACK 2] button during Song playback.

You can cancel the mute function by pressing the corresponding track buttons, [TRACK 1] or [TRACK 2] again during Song playback, or by selecting any other Song.



Practice Makes Perfect

You can repeatedly practice a section you find difficult. This function lets you specify a section of a Song you want to practice—"A" is the start point and "B" is the end point—for repeat playback.



Play the Song and press the [A-B REPEAT] button at the beginning of the section you want to repeat (the "A" point)."A-REPEAT" will be displayed.

2 Press the [A-B REPEAT] button a second time at the end of the section you want to repeat (the "B" point). The specified A-B section of the Song will now play repeatedly, letting you practice the section over and over.

You can stop repeat playback by pressing the [A-B REPEAT] button. The A-B REPEAT mode will be canceled and normal playback of the Song will continue.

NOTE

• The repeat start and end points can be specified in one-measure increments.

- You can also set the A-B Repeat function when the Song is stopped. Simply use the [REW] and [FF] buttons to select the desired measures, pressing the [A-B REPEAT] button for each point, then start playback.
- If you want to set the start point "A" at the very beginning of the Song press the [A-B REPEAT] button before starting playback of the Song.

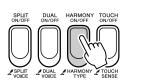
NOTE

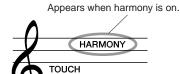
• The A-B Repeat function will be canceled when you select another Song or Style mode.

Adding Harmony

This feature adds harmony notes as well as tremolo or echo effects to the Main Voice.

Press the [HARMONY] button to turn harmony on.When you don't want to add harmony notes, press the [HARMONY ON/OFF] button again to turn Harmony off.

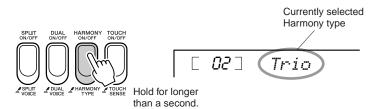




- NOTE
 - When you press the [HAR-MONY ON/OFF] button to turn this feature on, the appropriate Harmony type for the currently selected Main Voice is automatically selected.

2 Press and hold the [HARMONY ON/OFF] button for longer than a second.

"HarmType" appears in the display for a few seconds, followed by the Harmony Type.



NOTE

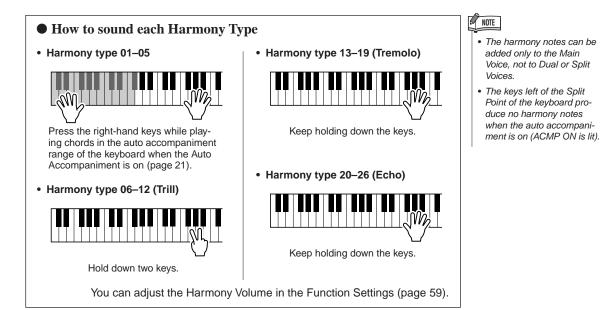
- You can also access the Harmony Type setting display by pressing the [FUNCTION] button several times.
- Harmony will be turned off if the Chord Dictionary function is used.

3 Select a desired Harmony Type by using the number buttons [0]–[9], [+], [-].

Refer to the Harmony Type list on page 81.

Try playing the keyboard with the harmony function. The effect and operation of each Harmony Type is different—refer to the section "How to sound each Harmony Type" on the next page as well as the Harmony Type List for details.



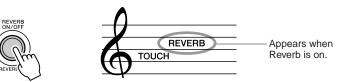


Adding Reverb

Reverb adds the ambience of a room or concert hall to the sound that you play on the keyboard.

To add Reverb

Press the [REVERB ON/OFF] button to turn Reverb on. Reverb is normally on. You can check how the selected Reverb Type sounds by playing the keyboard. To turn Reverb off, press the [REVERB ON/OFF] button again.



Select a Reverb Type

The ideal type is automatically selected whenever you select a Song or Style, but you can select any of the available Reverb Types.

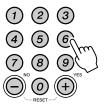
Press and hold the [REVERB ON/OFF] button for longer than a second. "REVERB" appears in the display for a few seconds, followed by the Reverb Type.



2 Select the desired Reverb Type by using the number buttons [0]–[9], [+], [-].

Refer to the Reverb Type list on page 81 for details.

You can adjust the Reverb depth in the Function Settings (page 59).



NOTE

 You can also access the Reverb Type setting display by pressing the [FUNC-TION] button several times.

Adding Chorus

This effect makes the Voice sound richer, warmer and more spacious. The best-suited Chorus type is automatically selected whenever you select a Voice; however, you can select any of the available types.

Press the [FUNCTION] button a number of times until the "Chorus" appears.

"Chorus" appears in the display for a few seconds, followed by the Chorus Type.



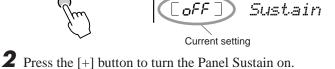
2 Select a desired Chorus Type by using the number buttons [0]–[9], [+], [-]. Refer to the Chorus Type list on page 81 for details. You can adjust the Chorus depth independently for the Main, Dual and Split Voices in the Function Settings (page 59).

Adding Panel Sustain

This function adds a fixed sustain to the keyboard Voices.

Press the [FUNCTION] button a number of times until the "Sustain" 1 item appears.





Panel Sustain will be added to the notes you play on the keyboard when the Panel Sustain is on. To turn it off, press the [-] button.

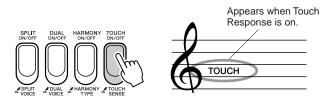


NOTE

• See the section "Connecting a footswitch (SUSTAIN Jack)" on page 9 for information on applying sustain with the optional footswitch.

Touch Response Sensitivity

Touch Response

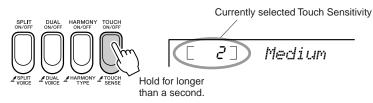


Press the [TOUCH ON/OFF] button to turn Touch Response on. When Touch Response is on, you can control the volume of notes according to how hard you play the keys. Touch Response is normally on. Press the [TOUCH ON/OFF] button again to turn the Touch Response off. When Touch Response is off, the same volume will be produced no matter how hard you play the keys.

Setting the Touch Sensitivity

When Touch Response is on, you can adjust the sensitivity of the keyboard in response to keyboard dynamics in three steps. Higher values produce greater (easier) volume variation in response to keyboard dynamics—in other words, greater sensitivity.

Press and hold the [TOUCH ON/OFF] button for longer than a second. "TouchSns" appears in the display for a few seconds, followed by the current Touch Sensitivity value.



2 Select a Touch Sensitivity setting between 1 and 3 by using the number buttons [0]–[9], [+], [-].

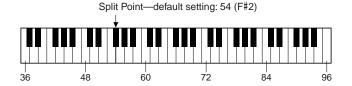


NOTE

 The Touch Response function cannot be used for some Voices (such as organ), even if the Touch Response icon appears in the display.

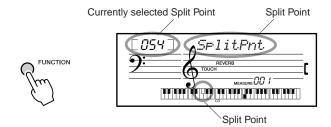
Setting the Split Point

The Split Point setting can be changed as desired.



The initial default Split Point is key number 54 (the F#2 key), but you can change it to another key. When you change the Split Point, the auto accompaniment range also changes.

Press the [FUNCTION] button a number of times until "SplitPnt" appears.





 Press the [+] and [-] buttons simultaneously to instantly reset the value to its default setting (54 or F#2).

2 Set the Split Point by using the number buttons [0]–[9], [+], [-].

Transpose

required.

The overall pitch of the instrument can be shifted up or down by a maximum of 1 octave in semitone increments.

Press the [FUNCTION] button a number of times until the "Transpos" appears.

nn

Current transpose value



2 Use the number buttons [0]–[9], [+], [-] to set the Transpose value between -12 and +12 as



Transpos

NOTE

 The pitch of the Drum Kits Voices (Voice numbers 109–121) cannot be changed.

 Press the [+] and [-] buttons simultaneously to instantly reset the value to its default setting (00).

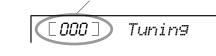
46

Tuning

You can fine tune the pitch of the entire instrument. The overall tuning of the instrument can be shifted up or down by a maximum of 100 cents in 1-cent increments (100 cents = 1 semitone).

Press the [FUNCTION] button a number of times until "Tuning" appears.





Currently tuning value

2 Use the number buttons [0]–[9], [+] and [-] to set the Tuning value between -100 and +100 as required.



• The pitch of the Drum Kits Voices (Voice numbers 109–121) cannot be changed.

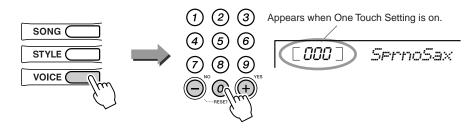
NOTE

• Press the [+] and [-] buttons simultaneously to instantly reset the value to its default setting (000).

One Touch Setting

Sometimes selecting the ideal Voice to play with a Song or Style can be confusing. The One Touch Setting feature automatically selects the most suitable Voice for you when you select a Style or Song. Simply select Voice number "000" to activate this feature.

Press the [VOICE] button, and then select Voice number "000" by using the number buttons [0]–[9], [+], [-].

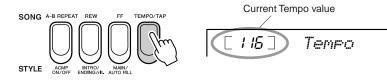


This turns the One Touch Setting feature on. One Touch Setting will be turned off if you select any other Voice number.

Changing the tempo of the Song/Style

Songs and Styles can be played at any tempo you desire-fast or slow.

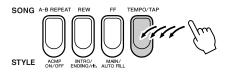
Press the [TEMPO/TAP] button to call up the Tempo setting in the display after selecting a Style/Song.



2 Set the Tempo by using the number buttons [0]–[9], [+], [-].

You can also set the Tempo by simply tapping the [TEMPO/TAP] button at the required tempo—four times for time signatures in 4, and three times for time signatures in 3.

You can change the Tempo during Style/Song playback by pressing the [TEMPO/TAP] button just twice.

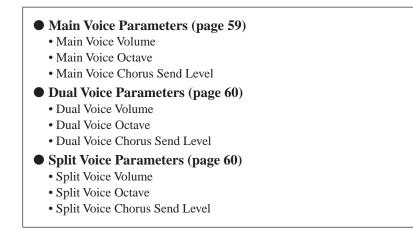


NOTE

 Press the [+] and [-] buttons simultaneously to instantly reset the value to the default tempo of a Style or Song.

Adjusting the Voice Parameters

The volume, octave (the pitch of the instrument can be shifted by up or down in octaves) and Chorus Send Level can be individually adjusted for the Main, Dual, and Split Voices.



You can adjust each of the parameters above in the Function settings (page 59).

Style (Auto Accompaniment) Functions

Various ways to start and stop Style playback

Starting Style playback

The following three methods can be used to start Style playback. In all cases you will need to press the [ACMP ON/OFF] button to turn auto accompaniment on before actually starting Style playback. Whichever method you choose, you can press the [INTRO/ENDING/rit.] before starting playback. To begin your performance, an introduction will play automatically, then will automatically switch to the MAIN section when finished.

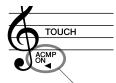
Immediate Start

Press the [START/STOP] button to begin rhythm-only playback of the selected Style.

The bass and chords will begin playing as soon as you play a chord in the accompaniment range of the keyboard.



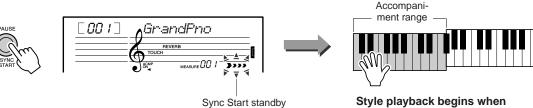




Appears when the auto accompaniment is on

Chord Start

Press the [SYNC START] button and the beat arrows will begin flashing, indicating that the Sync Start "standby" mode has been engaged. The bass and chords will begin playing as soon as you play a chord in the accompaniment range of the keyboard.



you play a chord

Tap Start

You can supply a count-in at any tempo you like to start playback. Simply tap the [TEMPO/TAP] button at any tempo—4 times for time signatures in 4, and 3 times for time signatures in 3—and the selected Style rhythm will begin playing at the tapped tempo.

The bass and chords will begin playing as soon as you play a chord in the accompaniment range of the keyboard.



Stopping Style playback

The following three methods can be used to stop Style playback.

Immediate Stop

Playback will stop as soon as you press the [START/STOP] button.



Stop and Enter Sync Start Mode

If you press the [SYNC START] button during Style playback, playback will stop immediately and the Sync Start standby mode will be engaged (beat arrows will flash).



Stop immediately and enter the Sync Start mode



Sync Start standby

Play the Ending and Stop

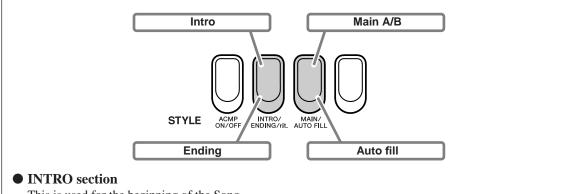
Press the [INTRO/ENDING/rit.] button to begin playing an ending section. Playback will stop when the ending has played all the way through.



If you press the [INTRO/ENDING/rit.] button a second time (while the ending is playing), the ending will play in ritardando (the tempo will gradually get slower).

Pattern Variation (Sections)

The instrument features a wide variety of Style "sections" (patterns) that allow you to vary the arrangement of the accompaniment to match the Song you are playing.



This is used for the beginning of the Song

When the intro finishes playing, accompaniment shifts to the main section.

The length of the intro (in measures) differs depending on the selected Style.

MAIN section

This is used for playing the main part of the Song. It plays a main accompaniment pattern, and repeats indefinitely until another section's button is pressed. There are two variations on the basic pattern (A and B), and the Style playback sound changes harmonically based on the chords you play with your left hand.

• Fill-in section

This is automatically added before changing the section A and B.

• ENDING section

This is used for the ending of the Song. When the ending is finished, the auto accompaniment stops automatically. The length of the ending (in measures) differs depending on the selected Style.

I Press the [STYLE] button and then select a Style.

2 Turn auto accompaniment on.

Press the [ACMP ON/OFF] button.

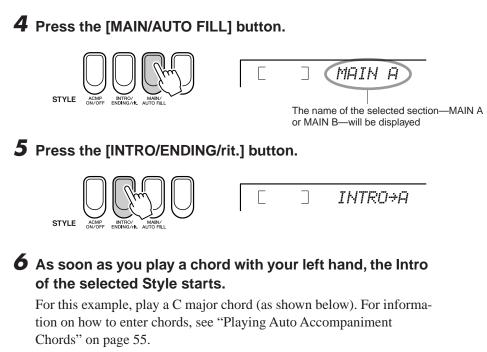


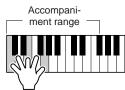
Appears when the auto accompaniment is on.

3 Turn SYNC START on.

Press the [SYNC START] button.











When the fill-in is finished, it leads smoothly into the selected main section A/B.

8 Press the [INTRO/ENDING/rit.] button.



This switches to the ending section.

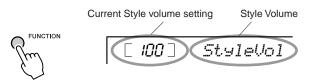
When the ending is finished, the auto accompaniment stops automatically. You can have the ending gradually slow down (ritardando) by pressing the [INTRO/ENDING/rit.] button again while the ending is playing back.

Adjusting the Style Volume

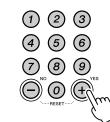
This procedure allows you to adjust the balance between Style playback and the notes you play on the keyboard by setting the volume of the playback sound.

Press the [STYLE] button.

2 Press the [FUNCTION] button a number of times until the "StyleVol" appears.



3 Set the Style volume by using the number buttons [0]– [9], [+], [-].



NOTE

 Press the [+] and [-] buttons simultaneously to instantly reset the value to its default setting (100).

Registering Style Files

This instrument features 106 internal styles, but other styles, such as those which can be obtained from the internet (only styles with the ".sty" suffix), can be registered into style number 107 and used in the same way as the internal styles.

In order to use the style file register function, the file must already have been transferred from the computer to the instrument. The procedure for transferring files from a computer to the instrument is described on page 65 ("Transferring data between the PSR-E313/YPT-310 and a computer"). The procedure described below registers a style file that has already been transferred from a computer to the instrument into style number 107.

Press the [FUNCTION] button as many time as necessary to select the style file load function "StyleReg".



After about 2 seconds the name of a registerable style file will appear in the display.

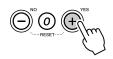
If multiple loadable style files have been transferred to the instrument, you can use the [+] and [-] buttons to select the other files in sequence.

2 Execute the register operation.

With the name of the style file you want to register shown in the display, press the number [0] button.



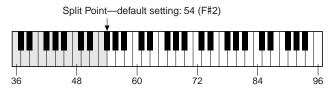
3 A confirmation message for the register operation will appear. Press the [+/YES] button to actually register the file.



You've learned in the section "Play with a Style (Accompaniment)" on page 20 that the "feel" of the Style changes every time you play a chord on the left-hand side of the keyboard. Here, you'll learn the types of the chords and how to play them in greater detail. The examples of chords are given here in the key of C.

There are two basic ways (below) you can play the chords on the left-hand side of the keyboard, while playing the Style (page 21)

- Easy Chords
- Standard Chords



Easy Chords

This method lets you easily play chords in the accompaniment range of the keyboard using only one, two, or three fingers.



 To play a major chord Press the root note of the chord.

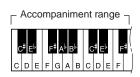


• To play a seventh chord Press the root note together with the nearest white key to the left of it.

 To play a minor seventh chord Press the root note together with the nearest white and black keys to the left of it

NOTE

· Root notes and the corresponding keys





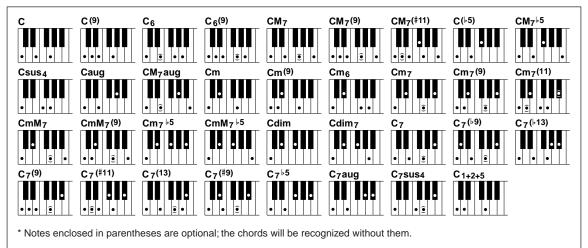
 To play a minor chord Press the root note together with the nearest black key to the left of it



(three keys altogether).

Standard Chords

This method lets you produce accompaniment by playing chords using normal fingerings in the accompaniment range of the keyboard.



Recognized Standard Chords Chart

Chord Name/[Abbreviation]	Normal Voicing	Chord (C)	Display
Major [M]	1 - 3 - 5	С	С
Add ninth [(9)]	1 - 2 - 3 - 5	C(9)	C(9)
Sixth [6]	1 - (3) - 5 - 6	C6	C6
Sixth ninth [6(9)]	1 - 2 - 3 - (5) - 6	C6(9)	C6(9) *
Major seventh [M7]	1 - 3 - (5) - 7 or 1 - (3) - 5 - 7	CM7	CM7
Major seventh ninth [M7(9)]	1 - 2 - 3 - (5) - 7	CM7(9)	CM7(9) *
Major seventh add sharp eleventh [M7(#11)]	1 - (2) - 3 - #4 - 5 - 7 or 1 - 2 - 3 - #4 - (5) - 7	CM7(#11)	CM7(#11)*
Flatted fifth [(^b 5)]	1 - 3 - ♭5	C(♭5)	C⊧2 *
Major seventh flatted fifth [M7 ^b 5]	1 - 3 - ♭5 - 7	CM7♭5	CM7♭5 *
Suspended fourth [sus4]	1 - 4 - 5	Csus4	Csus4
Augmented [aug]	1 - 3 - #5	Caug	Caug
Major seventh augmented [M7aug]	1 - (3) - #5 - 7	CM7aug	CM7aug *
Minor [m]	1 - 13 - 5	Cm	Cm
Minor add ninth [m(9)]	1 - 2 - \>3 - 5	Cm(9)	Cm(9)
Minor sixth [m6]	1 - 13 - 5 - 6	Cm6	Cm6
Minor seventh [m7]	1 - ♭3 - (5) - ♭7	Cm7	Cm7
Minor seventh ninth [m7(9)]	1 - 2 - \\$3 - (5) - \\$7	Cm7(9)	Cm7(9)
Minor seventh add eleventh [m7(11)]	1 - (2) - \93 - 4 - 5 - (\97)	Cm7(11)	Cm7(11) *
Minor major seventh [mM7]	1 -	CmM7	CmM7
Minor major seventh ninth [mM7(9)]	1 - 2 - \>3 - (5) - 7	CmM7(9)	CmM7(9) *
Minor seventh flatted fifth [m7b5]	1 - •3 - •5 - •7	Cm7♭5	Cm7♭5
Minor major seventh flatted fifth [mM7b5]	1 - \\$3 - \\$5 - 7	CmM7♭5	CmM7♭5 *
Diminished [dim]	1 - \\$3 - \\$5	Cdim	Cdim
Diminished seventh [dim7]	1 - •3 - •5 - 6	Cdim7	Cdim7
Seventh [7]	1 - 3 - (5) - ♭7 or 1 - (3) - 5 - ♭7	C7	C7
Seventh flatted ninth [7(b9)]	1 - >2 - 3 - (5) - >7	C7(♭9)	C7(♭9)
Seventh add flatted thirteenth [7(b13)]	1 - 3 - 5 - 6 - 7	C7(♭13)	C7(♭13)
Seventh ninth [7(9)]	1 - 2 - 3 - (5) - \>7	C7(9)	C7(9)
Seventh add sharp eleventh [7(#11)]	1 - (2) - 3 - #4 - 5 - ♭7 or 1 - 2 - 3 - #4 - (5) - ♭7	C7(#11)	C7(#11)
Seventh add thirteenth [7(13)]	1 - 3 - (5) - 6 - ♭7	C7(13)	C7(13)
Seventh sharp ninth [7(#9)]	1 - #2 - 3 - (5) - ♭7	C7(#9)	C7(#9)
Seventh flatted fifth [7 ^b 5]	1 - 3 - \>5 - \>7	C7♭5	C7♭5 *
Seventh augmented [7aug]	1 - 3 - #5 - ♭7	C7aug	C7aug
Seventh suspended fourth [7sus4]	1 - 4 - (5) - ♭7	C7sus4	C7sus4
One plus two plus five [1+2+5]	1 - 2 - 5	C1+2+5	C *

NOTE

- Notes in parentheses can be omitted.
- Playing two same root keys in the adjacent octaves produces accompaniment based only on the root.
- A perfect fifth (1+5) produces accompaniment based only on the root and fifth which can be used with both major and minor chords.
- The chord fingerings listed are all in "root" position, but other inversions can be used—with the following exceptions: m7, m7k5, 6, m6, sus4, aug, dim7, 7k5, 6(9), 1+2+5
- Inversion of the 7sus4 and m7(11) chords are not recognized if the notes shown in parentheses are omitted.
- The auto accompaniment will sometimes not change when related chords are played in sequence (e.g. some minor chords followed by the minor seventh).
- Two-note fingerings will produce a chord based on the previously played chord.

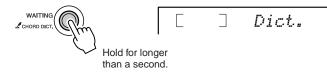
* These chords are not shown in the Chord Dictionary function.

56

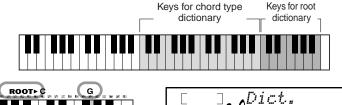
Looking up Chords Using the Chord Dictionary

The Dictionary function is essentially a built-in "chord dictionary" that shows you the individual notes of chords. It is ideal when you know the name of a certain chord and want to quickly learn how to play it.

Press and hold the [WAITING] button for longer than a second. "Dict." will appear in the display.

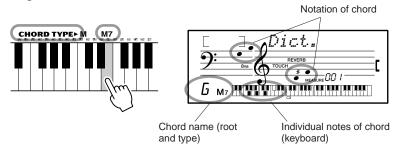


2 As an example, we'll learn how to play a GM7 (G major seventh) chord. Press the "G" key in the section of the keyboard labeled "ROOT ►." (The note doesn't sound.) The root note you set is shown in the display.





Press the "M7" (major seventh) key in the section of the keyboard labeled "CHORD TYPE►." (The note doesn't sound.)
 The notes you should play for the specified chord (root note and chord type) are shown in the display, both as notation and in the keyboard diagram.



To call up possible inversions of the chord, press the [+]/[-] buttons.

4 Try playing a chord in the auto accompaniment section of the keyboard, checking the indications in the display.When you've played the chord properly, a bell sound signals your suc-

cess and the chord name in the display flashes.

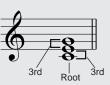
NOTE

 Major chords are usually indicated by the root name only. For example, the indication "C" in a score refers to a "C Major" chord. To look up the fingering for a major chord press the root key and then the M chord type key.

About chords

Playing two or more notes together simultaneously creates a "chord."

Playing a note together with two other notes spaced three notes (steps) apart—such as the notes C, E and G—creates a harmonious sound. Chords like these are called "triads" and they play an important role in most music.

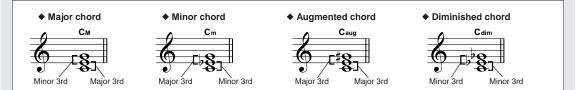


Taking the chord above as an example, the lowest note of this triad is called the "root note." This is the central note sound, and it supports or anchors the rest of the notes chord.

You'll notice that the middle note of the chord above (E) is the third step in the succession of scale notes—C, D, then E. There are two types of "thirds" in chords: major thirds and minor thirds.



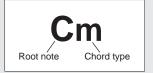
We'll also alter the top note of our original chord and make three additional chords, as shown below. (The captions indicate the intervals between each of the notes.)



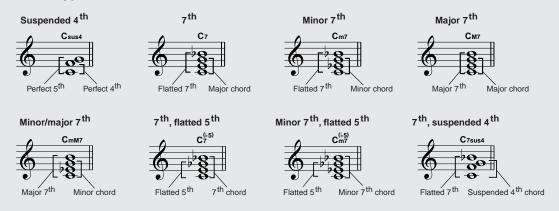
The basic characteristics of the chord sound are same, no matter if we change the order of the notes from bottom to top, or if we add other same name notes in different octaves. Beautiful sounding harmonies can be built in this manner, and emotional music can be created by playing different chords one after the other according to commonly accepted rules. Harmony determines the nature of chords, and music is created based on harmony.

Chord names

From the chord name, you can tell at a glance what type of chord it is and which notes make up the chord. Understanding the basic structure of chords is very useful—once you're familiar with this, you'll be quickly and easily play chords by looking at the names that appear above the notation.



• Chord types (These chords are among those that can be recognized by the Fingered method.)



Function Settings

The [FUNCTION] button gives you access to a variety of operations related to adjusting or enhancing the sound and making settings for connection to external devices.

Select the item and change the value

There are 34 different items that can be set.

Press the [FUNCTION] button a number of times until desired item appears.

Each time the [FUNCTION] button is pressed 34 function items are displayed in sequence. The description and display sample is provided on the Function Setting List on page 59–60.





2 Set the value by using the number buttons [0]–[9], [+], [-].

For on/off settings or the PC Mode setting, use [+]/[-] buttons.

1	2	3	
4	5	6	m
7	8	<u>ور</u> ز	\mathcal{L}
Θ		(+) YES	
	OL I		

• Function Setting List

ltem	Display	Range/settings	Description
Style Volume	StyleVol	000–127	Determines the volume of the Style.
Song Volume	SongVol	000–127	Determines the volume of the Song.
Transpose	TransPos	-12-00-12	Determines the pitch of the instrument by semitone incre- ments.
Tuning	Tuning	-100-000-100	Sets the pitch of the instrument's sound in 1-cent increments.
Split Point	SplitPnt	000–127 (C-2–G8)	Determines the highest key for the Split Voice and sets the Split "point"—in other words, the key that separates the Split (lower) and Main (upper) Voices. The Split Point setting and Accompaniment Split Point setting are automatically set to the same value.
Touch Sensitivity	TouchSns	1 (Soft) 2 (Medium) 3 (Hard)	When Touch Response is on, this determines the sensitivity of the feature.
Style Register	StyleReg	001–nnn	Select and register a style file from flash files that are loaded from computer.
Main Voice Volume	M.Volume	000–127	Determines the volume of the Main Voice.
Main Voice Octave	M.Octave	-2-0-2	Determines the octave range for the Main Voice.
Main Voice Chorus Send Level	M.Chorus	000–127	Determines how much of the Main Voice's signal is sent to the Chorus effect.

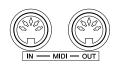
Item	Display	Range/settings	Description
Dual Voice	D.Voice	001–482	Selects the Dual Voice.
Dual Voice Volume	D.Volume	000–127	Determines the volume of the Dual Voice.
Dual Voice Octave	D.Octave	-2-0-2	Determines the octave range for the Dual Voice.
Dual Voice Chorus Send Level	D.Chorus	000–127	Determines how much of the Dual Voice's signal is sent to the Chorus effect.
Split Voice	S.Voice	001–482	Selects the Split Voice.
Split Voice Volume	S.Volume	000–127	Determines the volume of the Split Voice.
Split Voice Octave	S.Octave	-2-0-2	Determines the octave range for the Split Voice.
Split Voice Chorus Send Level	S.Chorus	000–127	Determines how much of the Split Voice's signal is sent to the Chorus effect.
Reverb Type	Reverb	01–10	Determines the Reverb type, including off (10). Refer to the Reverb Type list on page 81.
Reverb Level	RevLevel	000–127	Determines how much of the Voice's signal is sent to the Reverb effect.
Chorus Type	Chorus	1–5	Determines the Chorus Type, including off (05). Refer to the Chorus Type list on page 81.
Panel Sustain	Sustain	ON/OFF	Determines whether or not Panel Sustain is always applied to the Main/Dual/Split Voices. Panel Sustain is applied continu- ously when ON, or not applied when OFF.
Harmony Type	HarmType	01–26	Determines the Harmony Type. Refer to the Harmony Type list on page 81.
Harmony Volume	HarmVol	000–127	Determines the volume of the Harmony effect when Harmony type 1–5 is selected.
PC Mode	PC mode	OFF/PC1/PC2	Optimizes the MIDI settings when you connect to a computer (page 63).
Local On/Off	Local	ON/OFF	Determines whether the instrument's keyboard controls the internal tone generator (ON) or not (OFF).
External Clock	ExtClock	ON/OFF	Determines whether the instrument synchronizes to the inter- nal clock (OFF) or an external clock (ON).
Initial Setup Send	InitSend	YES/NO	Lets you send the data of the panel settings to a computer. Use the [+] button to transmit the data.
Time Signature Numerator	TimeSigN	00–60	Determines the time signature of the Metronome.
Time Signature Denominator	TimeSigD	Half note, Quarter note, Eighth note, Sixteenth note	Sets the length of each metronome beat.
Metronome Volume	MetroVol	000–127	Determines the volume of the Metronome.
Lesson Track (R)	R-Part	01–16	Determines the guide track number for your right hand lesson. The setting is only effective for Songs in SMF format 0 trans- ferred from a computer. Refer to the section "Using Trans- ferred Songs for Lessons" on page 68.
Lesson Track (L)	L-Part	01–16	Determines the guide track number for your left hand lesson. The setting is only effective for Songs in SMF format 0 trans- ferred from a computer. Refer to the section "Using Trans- ferred Songs for Lessons" on page 68
Demo Cancel	D-Cancel	ON/OFF	Determines whether Demo cancel is enabled or not. When this is set to ON, the Demo Song will not play, even if the [DEMO] button is pressed.

The instrument features a MIDI terminals that can be connected to other MIDI instruments and devices for expanded musical functionality.

What is MIDI?

About MID

MIDI (Musical Instrument Digital Interface) is a world-standard interface for communication between electronic musical instruments and music devices. When MIDI-equipped instruments are connected via a MIDI cable, it becomes possible to transfer performance and setting data between them for significantly enhanced performance and production potential.



 Connect the PSR-E313/YPT-310 to external equipment only after turning off power for all devices. Then, turn on the power, first to the PSR-E313/YPT-310, then to the connected external equipment.

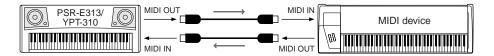
What You Can Do With MIDI

- Transferring performance and setting data between the PSR-E313/YPT-310 and MIDI-equipped instruments or computers. (page 62)
- Transferring the data between the PSR-E313/YPT-310 and computers. (page 65)

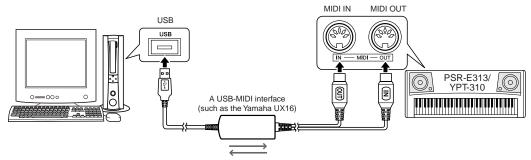
Transferring Performance Data To and From Another Instrument

By connecting the PSR-E313/YPT-310 to other MIDI devices or a computer, the performance data of the instrument can be used on those other MIDI devices or computer, and also the performance data from other MIDI devices and computer can be received and sounded with the PSR-E313/YPT-310.

• When the instrument is connected with another MIDI device, it transmits/receives performance data.



When the instrument is connected with a computer, it transmits/ receives performance data.



MIDI settings

These settings should be made when transmitting/receiving performance data to a connected MIDI device or computer.

Local Settings

Local Control determines whether or not notes played on the instrument are sounded by its internal tone generator system; the internal tone generator is active when local control is on, and inactive when local control is off.

- **On** This is the normal setting in which notes played on the instrument's keyboard are sounded by the internal tone generator system. Data received via the instrument's MIDI terminal will also be played by the internal tone generator.
- **Off** With this setting the instrument itself produces no sound (keyboard performance, Harmony, or Style playback), but the performance data is transmitted via the MIDI terminal. Data received via the instrument's MIDI terminal will also be played by the internal tone generator.

You can set the Local Control in the Function Settings (page 59).



 If you can't get any sound out of the instrument, Local Control may be the most likely cause. Playing the keyboard results in no sound when Local is set to OFF:

62

External Clock Settings

These settings determine whether the instrument is synchronized to its own internal clock (OFF), or to a clock signal from an external device (ON).

- **On**...... The instrument's time based functions will be synchronized to the clock from an external device connected to the MIDI terminal.
- Off The instrument uses its own internal clock (default).

You can set the External Clock in the Function Settings (page 59).

PC Mode

The PC settings instantly reconfigure all important MIDI settings (as shown below). The selections are PC1, PC2 and OFF.

The chart of PC Settings

	PC1	PC2*	OFF
LOCAL	Off	Off	On
EXTERNAL CLOCK	On	Off	Off
SONG OUT**	Off	Off	On
STYLE OUT***	Off	Off	On
KEYBOARD OUT****	Off	On	On

Set the PC mode to PC2 when using Digital Music Notebook. Digital Music Notebook is a major new multimedia platform for music tuition and performance. Visit the website below for more information on the latest version of Digital Music Notebook and how to install it. www.digitalmusicnotebook.com

- ** Determines whether Song data is transmitted (ON) via MIDI or not (OFF) during Song playback.
- Determines whether Style data is transmitted (ON) via MIDI or not (OFF) during Style playback.
- **** Determines whether keyboard performance data of the instrument is transmitted (ON) or not (OFF).
- Press and hold the [DEMO] button for longer than a second to call up the PC Mode.



2 Select PC1, PC2, or OFF by using the [+], [-] buttons.

NOTE

 If External Clock is ON and no clock signal is being received from an external device, the Song, Style, and metronome functions will not start.

NOTE

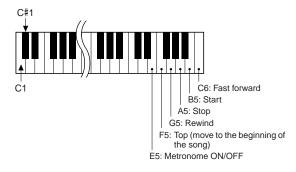
- Song Out, Style Out and Keyboard Out can only be changed by the PC setting. They cannot be set independently.
- User Songs can be used with Song Out.

Remote Control of MIDI Devices

You can also use this instrument as a remote control device for the Digital Music Notebook application on your computer (via the MIDI connection) —controlling playback, stop and transport functions from the panel.

Remote control keys

PSR-E313/YPT-310: To use the remote control functions, simultaneously hold down the lowest two keys on the keyboard (C1 and C#1) and press the appropriate key (shown below).



NOTE

 Remote control of MIDI devices will function independently of the PC2 mode.

PSR-E313/YPT-310 Panel Setting Transmission (Initial Send)

Sends the PSR-E313/YPT-310 panel settings to an external MIDI device. When recording a PSR-E313/YPT-310 performance to an external sequencer or similar equipment, you can use this function to send the current PSR-E313/YPT-310 panel settings so that when the sequence is played back the original panel settings are automatically restored. You can set Initial Send in the Function settings (page 59).

Transferring data between the PSR-E313/YPT-310 and a computer

The PSR-E313/YPT-310 includes 102 preset Songs and 106 Styles, but you can load other Songs and Styles from your computer and use them in the same way as the preset Songs and Styles as long as the loaded Song is SMF format 0* or the loaded Style is SFF (Style File Format). Loaded Song data will be stored to Song numbers beginning with 108 and one of the loaded style/s can be registered as the 107th style. In order to perform the operations described in this section you will need to

use a computer connected to the Internet to download the free Musicsoft Downloader application.

* The SMF (Standard MIDI File) format is one of the most common and widely compatible sequence formats used for storing sequence data. Most commercially available MIDI sequence data is provided in SMF Format 0.

Installing Musicsoft Downloader

You can download the "Musicsoft Downloader" application from the following website. Make sure that your computer has an Internet connection.

http://music.yamaha.com/download/

• The minimum computer requirements for Musicsoft Downloader operation are as follows:

- OS : Windows 98SE/Me/2000/XP Home Edition/ XP Professional
- CPU : 233 MHz or higher; Intel® Pentium®/Celeron® processor family (500 MHz or more is recommended)
- Memory : 64 MB or more (256 MB or more is recommended)
- Hard Disk : at least 128 MB of free space (at least 512 MB of free space is recommended)
- Display : 800 x 600 HighColor (16-bit)
- Other : Microsoft® Internet Explorer®5.5 or higher

NOTE

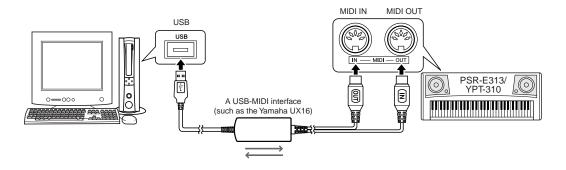
 Visit the Yamaha website for more information on the latest version of Musicsoft Downloader (version 5.4.0 or higher) and how to install it.

Connecting a personal computer

After installing the Musicsoft Downloader application on your computer, connect the PSR-E313/YPT-310 as described below.

A Yamaha UX16 or similar USB-MIDI interface (sold separately) will be necessary for MIDI connection between the PSR-E313/YPT-310 and a USB-equipped computer.

Make sure to purchase a Yamaha UX16 or a quality USB-MIDI interface at a musical instrument store, computer store or electrical appliance store. If you use the UX16 interface, install the driver supplied with the interface on your computer.



Transferring a file from a computer

You can transmit Song files and Style Files from your computer to the Flash Memory on your PSR-E313/YPT-310. For details about how to transmit Song file and Style File using the Musicsoft Downloader application, refer to the Online help topic "Transferring Data Between the Computer and Instrument (for unprotected data)" of the Musicsoft Downloader.

List of files stored temporarily	Ad	ld File	
File Name	Song Name	Туре	Size
iazz.MID	(MIDI Sequence	4 KI
Available Space: 373 KB Electronic Musical Instrum System Drive My Computer Local Disk (C:) X2289C0 (D:) Local Disk (E:)		Move	Siz

NOTE

- The Musicsoft Downloader application may not be able to access the instrument in the following cases:
 - During Style playback
 - During Song playback

ACAUTION

- Use the power adaptor when transferring data. The data can be corrupted if the batteries fail during the transfer.
- Never turn the power off and never plug/ unplug the AC power adaptor during data transmission. Not only will the data fail to be transferred and saved, but operation of the flash memory may become unstable and its contents may disappear completely when the power is turned on or off.

NOTE

• Close the window to exit from the Musicsoft Downloader and re-enable control of the instrument.

Data that can be loaded to the PSR-E313/YPT-310 from a computer

- Songs : 99 Songs max (Song numbers 108–)
- Data : 373 kilobytes
- Data Format : SMF Format 0
- File : 07PK3.BUP (Backup file)
 - : ***.mid (MIDI Song)
 - : ***.sty (Style File)

Transferring a backup file from the PSR-E313/YPT-310 to a computer

You can transfer backup data (page 31) to a computer as a "backup file" by using Musicsoft Downloader. For details about how to transmit backup files using the Musicsoft Downloader application, refer to the Online help topic "Transferring Data Between the Computer and Instrument (for unprotected data)" of the Musicsoft Downloader.

Musicsoft Downloader		1		
ist of files stored temporarily		Add File		
ïle Name	Song Name		Туре	Siz
-	Move	Move	-	
Available Space: 120 KB Electronic Musical Instruments State Drive Used Drive Local Disk (C:) Local Disk (E:)	File Name	Song Name	Type USR File	Siz
			heck	Help

Click here to display the backup file at the bottom of the window.

• Data that can be transferred to a computer from the PSR-E313/YPT-310

- Backup file (07PK3.BUP: backup data containing five User Songs)
- Songs transferred from a computer

• Erasing Transferred Song Data from the PSR-E313/YPT-310 Memory

To erase all Songs transferred from the computer, use "flash clear" function on page 31. To erase specific Songs transferred from the computer, use the Delete function on Musicsoft Downloader.

• Using Transferred Songs for Lessons

In order to use Songs (only SMF format 0) transferred from a computer for lessons it is necessary to specify which channels are to be played back as the right-hand and left-hand parts. Refer to the "Lesson Track (R)" or "Lesson Track (L)" in the Function Setting List on page 60. The procedure for setting the "guide track" is as follows: Select a transferred Song you want to use for lessons. Press the [FUNCTION] button a number of times until the "R-Part" or "L-Part" appears in the display, and then use the number buttons [0]–[9], [+], [-] to select the channel you want to play back as the specified right- or left-hand part.

We recommend that you select channel 1 for the right-hand part and channel 2 for the left-hand part.

NOTE

- Preset Song data cannot be transmitted from the PSR-E313/YPT-310.
- Do not rename the backup file on the computer. If you do so, it will not be recognized when transferred to the instrument.

A CAUTION

 The backup data, including the five User Songs is transmitted/received as a single file. As a result, all backup data (including the five Songs) will be overwritten every time you transmit or receive. Keep this in mind when transferring data.

Troubleshooting

Problem	Possible Cause and Solution
When the instrument is turned on or off, a popping sound is temporarily produced.	This is normal and indicates that the instrument is receiving electrical power.
When using a mobile phone, noise is pro- duced.	Using a mobile phone in close proximity to the instrument may produce interference. To prevent this, turn off the mobile phone or use it further away from the instrument.
There is no sound even when the keyboard is played or when a Song or Style is being played back.	Check that nothing is connected to the PHONES/OUTPUT jack on the rear panel. When a set of headphones is plugged into this jack, no sound is output.
played back.	Check the Local Control on/off. (See page 62.)
Playing keys in the right hand area of the keyboard does not produce any sound.	When using the Dictionary function (page 57), the keys in the right hand area are used only for entering the chord root and type.
 The volume is too soft. The sound quality is poor. The rhythm stops unexpectedly or will not play. The recorded data of the Song, etc. does not play correctly. The LCD display suddenly goes dark, and all panel settings are reset. 	The batteries are low or dead. Replace all six batteries with completely new ones, or use the optional AC adaptor.
The Style or Song does not play back when the [START/STOP] button is pressed.	Is External Clock set to ON? Make sure External Clock is set to OFF; refer to "External Clock Settings" on page 63.
	Make sure that the Style Volume (page 53) is set to an appropriate level.
The Style does not sound properly.	Is the Split Point set at an appropriate key for the cords you are playing? Set the Split Point at an appropriate key (page 46). Is the "ACMP ON" indicator showing in the display? If it is not showing press the [ACMP ON/OFF] button so that it does show.
No rhythm accompaniment plays when the [START/STOP] button is pressed after selecting Style number 098–106 (Pianist).	This is not a malfunction. Style number 098–106 (Pianist) have no rhythm parts, so no rhythm will play. The other parts will begin playing when you play a chord in the accompaniment range of the keyboard if auto accompaniment is turned on.
Not all of the voices seem to sound, or the sound seems to be cut off.	The instrument is polyphonic up to a maximum of 32 notes. If the Dual voice or Split voice is being used and a style or Song is playing back at the same time, some notes/sounds may be omitted (or "stolen") from the accompaniment or Song.
The footswitch (for sustain) seems to pro- duce the opposite effect. For example, press- ing the footswitch cuts off the sound and releasing it sustains the sounds.	The polarity of the footswitch is reversed. Make sure that the footswitch plug is properly connected to the SUSTAIN jack before turning on the power.
The sound of the voice changes from note to note.	This is normal. The AWM tone generation method uses multiple record- ings (samples) of an instrument across the range of the keyboard; thus, the actual sound of the voice may be slightly different from note to note.
The ACMP ON indicator does not appear when the [ACMP ON/OFF] button is pressed.	Always press the [STYLE] button first when you are going to use any style-related function.
The harmony doesn't sound.	The method of sounding the harmony effect (01–26) differs depending on the selected type. For Types 01–05, turn the Auto Accompaniment on and play it by pressing a chord in the auto accompaniment section of the keyboard, then play some keys in the right-hand side to get the harmony effect. For Types 06–26, turning the Auto Accompaniment on or off has no effect. However, it is necessary to play two notes simultaneously for Types 06–12.
The part indications, such as Right, Left and Both Hands, do not appear—even when pressing the [R] or [L] buttons for the Lesson.	Make sure that you are not pressing the [R] or [L] buttons while the Song is playing. If you press one of the part buttons while playing the Song and before starting the Lesson, these buttons serve to mute the corresponding Song tracks. Stop the Song first, then select the desired part and start the Lesson.

Maximum Polyphony •••••••••••••••••••••••

The instrument has 32-note maximum polyphony. This means that it can play a maximum of up to 32 notes at once, regardless of what functions are used. Auto accompaniment uses a number of the available notes, so when auto accompaniment is used the total number of available notes for playing on the keyboard is correspondingly reduced. The same applies to the Split Voice and Song functions. If the maximum polyphony is exceeded, earlier played notes will be cut off and the most recent notes have priority (last note priority).

Panel Voice List

	Bank	Select	MIDI		
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name	
			PIA	NO	
001	0	112	1	Grand Piano	
002	0	112	2	Bright Piano	
003	0	112	7	Harpsichord	
004	0	112	4	Honky-tonk Piano	
005	0	112	3	MIDI Grand Piano	
006	0	113	3	CP 80	
			E.PI	ANO	
007	0	114	5	Cool! Galaxy Electric Piano	
008	0	113	6	Hyper Tines	
009	0	112	5	Funky Electric Piano	
010	0	112	6	DX Modern Electric Piano	
011	0	114	6	Venus Electric Piano	
012	0	112	8	Clavi	
			OR	GAN	
013	0	112	17	Jazz Organ 1	
014	0	113	17	Jazz Organ 2	
015	0	112	19	Rock Organ	
016	0	114	19	Purple Organ	
017	0	112	18	Click Organ	
018	0	116	17	Bright Organ	
019	0	127	19	Theater Organ	
020	0	121	20	16'+2' Organ	
021	0	120	20	16'+4' Organ	
022	0	113	20	Chapel Organ	
023	0	112	20	Church Organ	
024	0	112	21	Reed Organ	
			ACCO	RDION	
025	0	112	22	Musette Accordion	
026	0	113	22	Traditional Accordion	
027	0	113	24	Bandoneon	
028	0	112	23	Harmonica	
			GUI	TAR	
029	0	112	25	Classical Guitar	
030	0	112	26	Folk Guitar	

released while the sustain pedal (footswitch) is held. Bank Select MIDI Voice Program Voice Name MSB I SB No. Change# (0-127) (0 - 127)(1 - 128)Jazz Guitar 60's Clean Guitar 12Strings Guitar Clean Guitar Octave Guitar Muted Guitar Overdriven Guitar **Distortion Guitar** BASS Finger Bass Acoustic Bass Pick Bass Fretless Bass Slap Bass Synth Bass Hi-Q Bass Dance Bass STRINGS String Ensemble Chamber Strings Slow Strings Tremolo Strings Synth Strings Pizzicato Strings Violin Cello Contrabass

Harp

Banjo

Choir

Air Choir

Vox Humana

CHOIR

Orchestra Hit

Vocal Ensemble

- The Voice List includes MIDI program change numbers for each voice. Use these program change numbers when playing the instrument via MIDI from an external device.
- Program Numbers 001 to 128 directly relate to MIDI Program Change Numbers 000 to 127. That is, Program Numbers and Program Change Numbers differ by a value of 1. Remember to take this into consideration.
- Some voices may sound continuously or have a long decay after the notes have been

	Bank Select		MIDI	
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name
			SAXO	PHONE
063	0	112	67	Tenor Sax
064	0	112	66	Alto Sax
065	0	112	65	Soprano Sax
066	0	112	68	Baritone Sax
067	0	114	67	Breathy Tenor Sax
068	0	112	72	Clarinet
069	0	112	69	Oboe
070	0	112	70	English Horn
071	0	112	71	Bassoon
			TRU	MPET
072	0	112	57	Trumpet
073	0	112	58	Trombone
074	0	113	58	Trombone Section
075	0	112	60	Muted Trumpet
076	0	112	61	French Horn
077	0	112	59	Tuba
		1	BR	ASS
078	0	112	62	Brass Section
079	0	113	62	Big Band Brass
080	0	113	63	80's Brass
081	0	119	62	Mellow Horns
082	0	114	63	Techno Brass
083	0	112	63	Synth Brass
		I	FL	UTE
084	0	112	74	Flute
085	0	112	73	Piccolo
086	0	112	76	Pan Flute
087	0	112	75	Recorder
088	0	112	80	Ocarina
			SY	NTH
089	0	112	81	Square Lead
090	0	112	82	Sawtooth Lead
091	0	115	82	Analogon
092	0	119	82	Fargo
093	0	112	99	Star Dust
094	0	112	86	Voice Lead
095	0	112	101	Brightness
096	0	112	92	Xenon Pad
097	0	112	95	Equinox
098	0	112	89	Fantasia
099	0	113	90	Dark Moon
100	0	113	101	Bell Pad
			PERCI	JSSION
101	0	112	12	Vibraphone
102	0	112	13	Marimba
103	0	112	14	Xylophone
104	0	112	115	Steel Drums
105	0	112	9	Celesta
106	0	112	11	Music Box

Voice No.	Bank Select		MIDI			
	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name		
107	0	112	15	Tubular Bells		
108	0	112	48	Timpani		
DRUM KITS						
109	127	0	1	Standard Kit 1		
110	127	0	2	Standard Kit 2		
111	127	0	9	Room Kit		
112	127	0	17	Rock Kit		
113	127	0	25	Electronic Kit		
114	127	0	26	Analog Kit		
115	127	0	113	Dance Kit		
116	127	0	33	Jazz Kit		
117	127	0	41	Brush Kit		
118	127	0	49	Symphony Kit		
119	126	0	1	SFX Kit 1		
120	126	0	2	SFX Kit 2		
121	126	0	113	Sound Effect Kit		

XGlite Voice/XGlite Optional Voice* List

	Bank Select		MIDI	
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name
			PIA	NO
122	0	0	1	Grand Piano
123	0	1	1	Grand Piano KSP
124	0	40	1	Piano Strings
125	0	41	1	Dream
126	0	0	2	Bright Piano
127	0	1	2	Bright Piano KSP
128	0	0	3	Electric Grand Piano
129	0	1	3	Electric Grand Piano KSP
130	0	32	3	Detuned CP80
131	0	0	4	Honky-tonk Piano
132	0	1	4	Honky-tonk Piano KSP
133	0	0	5	Electric Piano 1
134	0	1	5	Electric Piano 1 KSP
135	0	32	5	Chorus Electric Piano 1
136	0	0	6	Electric Piano 2
137	0	1	6	Electric Piano 2 KSP
*138	0	32	6	Chorus Electric Piano 2
139	0	41	6	DX + Analog Electric Piano
140	0	0	7	Harpsichord
141	0	1	7	Harpsichord KSP
142	0	35	7	Harpsichord 2
143	0	0	8	Clavi
144	0	1	8	Clavi KSP
			CHRO	MATIC
145	0	0	9	Celesta
146	0	0	10	Glockenspiel
147	0	0	11	Music Box
148	0	64	11	Orgel
149	0	0	12	Vibraphone
150	0	1	12	Vibraphone KSP
151	0	0	13	Marimba
152	0	1	13	Marimba KSP
153	0	64	13	Sine Marimba
154	0	97	13	Balimba
155	0	98	13	Log Drums
156	0	0	14	Xylophone
157	0	0	15	Tubular Bells
158	0	96	15	Church Bells
159	0	97	15	Carillon
160	0	0	16	Dulcimer
161	0	35	16	Dulcimer 2
162	0	96	16	Cimbalom
163	0	97	16	Santur
ORGAN				
164	0	0	17	Drawbar Organ
165	0	32	17	Detuned Drawbar Organ
166	0	33	17	60's Drawbar Organ 1
-				

	Bank	Select	MIDI	
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name
167	0	34	17	60's Drawbar Organ 2
168	0	35	17	70's Drawbar Organ 1
169	0	37	17	60's Drawbar Organ 3
170	0	40	17	16+2'2/3
171	0	64	17	Organ Bass
172	0	65	17	70's Drawbar Organ 2
173	0	66	17	Cheezy Organ
174	0	67	17	Drawbar Organ 2
175	0	0	18	Percussive Organ
176	0	24	18	70's Percussive Organ
177	0	32	18	Detuned Percussive Organ
178	0	33	18	Light Organ
179	0	37	18	Percussive Organ 2
180	0	0	19	Rock Organ
181	0	64	19	Rotary Organ
182	0	65	19	Slow Rotary
183	0	66	19	Fast Rotary
184	0	0	20	Church Organ
185	0	32	20	Church Organ 3
186	0	35	20	Church Organ 2
187	0	40	20	Notre Dame
188	-			
189	0	64	20	Organ Flute
	-	65	20	Tremolo Organ Flute
190	0	0	21	Reed Organ
191	0	40	21	Puff Organ
192	0	0	22	Accordion
193	0	0	23	Harmonica
194	0	32	23	Harmonica 2
195	0	0	24	Tango Accordion
196	0	64	24	Tango Accordion 2
		-		TAR
197	0	0	25	Nylon Guitar
198	0	43	25	Velocity Guitar Harmonics
199	0	96	25	Ukulele
200	0	0	26	Steel Guitar
201	0	35	26	12-string Guitar
202	0	40	26	Nylon & Steel Guitar
203	0	41	26	Steel Guitar with Body Sound
204	0	96	26	Mandolin
205	0	0	27	Jazz Guitar
206	0	32	27	Jazz Amp
207	0	0	28	Clean Guitar
208	0	32	28	Chorus Guitar
209	0	0	29	Muted Guitar
210	0	40	29	Funk Guitar
211	0	41	29	Muted Steel Guitar
212	0	45	29	Jazz Man
213	0	0	30	Overdriven Guitar
214	0	43	30	Guitar Pinch

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	Bank	Select	MIDI			
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name		
215	0	0	31	Distortion Guitar		
216	0	40	31	Feedback Guitar		
217	0	41	31	Feedback Guitar 2		
218	0	0	32	Guitar Harmonics		
219	0	65	32	Guitar Feedback		
220	0	66	32	Guitar Harmonics 2		
			BA	SS		
221	0	0	33	Acoustic Bass		
222	0	40	33	Jazz Rhythm		
223	0	45	33	Velocity Crossfade Upright Bass		
224	0	0	34	Finger Bass		
225	0	18	34	Finger Dark		
226	0	40	34	Bass & Distorted Electric Guitar		
227	0	43	34	Finger Slap Bass		
228	0	45	34	Finger Bass 2		
229	0	65	34	Modulated Bass		
230	0	0	35	Pick Bass		
231	0	28	35	Muted Pick Bass		
232	0	0	36	Fretless Bass		
233	0	32	36	Fretless Bass 2		
234	0	33	36	Fretless Bass 3		
235	0	34	36	Fretless Bass 4		
236	0	0	37	Slap Bass 1		
237	0	32	37	Punch Thumb Bass		
238	0	0	38	Slap Bass 2		
239	0	43	38	Velocity Switch Slap		
240	0	0	39	Synth Bass 1		
241	0	40	39	Techno Synth Bass		
242	0	0	40	Synth Bass 2		
243	0	6	40	Mellow Synth Bass		
244	0	12	40	Sequenced Bass		
245	0	18	40	Click Synth Bass		
246	0	19	40	Synth Bass 2 Dark		
*247	0	40	40	Modular Synth Bass		
248	0	41	40	DX Bass		
240	0	- 1	-	INGS		
249	0	0	41	Violin		
249	0	8	41	Slow Violin		
250	0	0	41	Viola		
251	0	0	42	Cello		
252	0	0	43	Contrabass		
253 254	0	0	44	Tremolo Strings		
254	0	8	45	Slow Tremolo Strings		
256	0	40	45	Suspense Strings		
257	0	0	46	Pizzicato Strings		
258	0	0	47	Orchestral Harp		
259	0	40	47	Yang Chin		
260	0	0	48	Timpani		

	Bank	Select	MIDI	
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name
			ENSE	MBLE
261	0	0	49	Strings 1
262	0	3	49	Stereo Strings
263	0	8	49	Slow Strings
264	0	35	49	60's Strings
265	0	40	49	Orchestra
266	0	41	49	Orchestra 2
267	0	42	49	Tremolo Orchestra
268	0	45	49	Velocity Strings
269	0	0	50	Strings 2
270	0	3	50	Stereo Slow Strings
271	0	8	50	Legato Strings
272	0	40	50	Warm Strings
273	0	41	50	Kingdom
274	0	0	51	Synth Strings 1
275	0	0	52	Synth Strings 2
276	0	0	53	Choir Aahs
277	0	3	53	Stereo Choir
278	0	32	53	Mellow Choir
279	0	40	53	Choir Strings
280	0	0	54	Voice Oohs
281	0	0	55	Synth Voice
282	0	40	55	Synth Voice 2
283	0	41	55	Choral
284	0	64	55	Analog Voice
285	0	0	56	Orchestra Hit
286	0	35	56	Orchestra Hit 2
287	0	64	56	Impact
			BR	ASS
288	0	0	57	Trumpet
289	0	32	57	Warm Trumpet
290	0	0	58	Trombone
291	0	18	58	Trombone 2
292	0	0	59	Tuba
293	0	0	60	Muted Trumpet
294	0	0	61	French Horn
295	0	6	61	French Horn Solo
296	0	32	61	French Horn 2
297	0	37	61	Horn Orchestra
298	0	0	62	Brass Section
299	0	35	62	Trumpet & Trombone Section
300	0	0	63	Synth Brass 1
301	0	20	63	Resonant Synth Brass
302	0	0	64	Synth Brass 2
303	0	18	64	Soft Brass
304	0	41	64	Choir Brass
201	, v			ED
305	0	0	65	Soprano Sax
000	5	5		coptaile oux

	Bank	Select	MIDI	
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name
306	0	0	66	Alto Sax
307	0	40	66	Sax Section
308	0	0	67	Tenor Sax
309	0	40	67	Breathy Tenor Sax
310	0	0	68	Baritone Sax
311	0	0	69	Oboe
312	0	0	70	English Horn
313	0	0	71	Bassoon
314	0	0	72	Clarinet
		1	PI	PE
315	0	0	73	Piccolo
316	0	0	74	Flute
317	0	0	75	Recorder
318	0	0	76	Pan Flute
319	0	0	77	Blown Bottle
320	0	0	78	Shakuhachi
321	0	0	79	Whistle
322	0	0	80	Ocarina
			SYNTH	I LEAD
323	0	0	81	Square Lead
324	0	6	81	Square Lead 2
325	0	8	81	LM Square
326	0	18	81	Hollow
327	0	19	81	Shroud
328	0	64	81	Mellow
329	0	65	81	Solo Sine
330	0	66	81	Sine Lead
331	0	0	82	Sawtooth Lead
332	0	6	82	Sawtooth Lead 2
333	0	8	82	Thick Sawtooth
334	0	18	82	Dynamic Sawtooth
335	0	19	82	Digital Sawtooth
336	0	20	82	Big Lead
337	0	96	82	Sequenced Analog
338	0	0	83	Calliope Lead
339	0	65	83	Pure Lead
340	0	0	84	Chiff Lead
341	0	0	85	Charang Lead
342	0	64	85	Distorted Lead
343	0	04	86	Voice Lead
344	0	0	87	Fifths Lead
345	0	35	87	Big Five
346	0	0	88	Bass & Lead
347	0	16	88	Big & Low
348	0	64	88	Fat & Perky
349	0	65	88	Soft Whirl
040	0	00		H PAD
350	0	0	89	New Age Pad
350	0	64	89	Fantasy
551	0	04	09	ганазу

Bank Selec		Select	MIDI				
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name			
352	0	0	90	Warm Pad			
353	0	0	91	Poly Synth Pad			
354	0	0	92	Choir Pad			
355	0	66	92	Itopia			
356	0	0	93	Bowed Pad			
357	0	0	94	Metallic Pad			
358	0	0	95	Halo Pad			
359	0	0	96	Sweep Pad			
			SYNTH I	EFFECTS			
360	0	0	97	Rain			
361	0	65	97	African Wind			
362	0	66	97	Carib			
363	0	0	98	Sound Track			
364	0	27	98	Prologue			
365	0	0	99	Crystal			
366	0	12	99	Synth Drum Comp			
367	0	14	99	Popcorn			
368	0	18	99	Tiny Bells			
369	0	35	99	Round Glockenspiel			
370	0	40	99	Glockenspiel Chimes			
371	0	41	99	Clear Bells			
372	0	42	99	Chorus Bells			
373	0	65	99	Soft Crystal			
374	0	70	99	Air Bells			
375	0	71	99	Bell Harp			
376	0	72	99	Gamelimba			
377	0	0	100	Atmosphere			
378	0	18	100	Warm Atmosphere			
379	0	19	100	Hollow Release			
380	0	40	100	Nylon Electric Piano			
381	0	64	100	Nylon Harp			
382	0	65	100	Harp Vox			
383	0	66	100	Atmosphere Pad			
384	0	0	101	Brightness			
385	0	0	102	Goblins			
386	0	64	102	Goblins Synth			
387	0	65	102	Creeper			
388	0	67	102	Ritual			
389	0	68	102	To Heaven			
390	0	70	102	Night			
391	0	71	102	Glisten			
392	0	96	102	Bell Choir			
393	0	0	103	Echoes			
394	0	0	104	Sci-Fi			
			WO	RLD			
395	0	0	105	Sitar			
396	0	32	105	Detuned Sitar			
397	0	35	105	Sitar 2			
398	0	97	105	Tamboura			

	Bank	Select	MIDI	
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name
399	0	0	106	Banjo
400	0	28	106	Muted Banjo
401	0	96	106	Rabab
402	0	97	106	Gopichant
403	0	98	106	Oud
404	0	0	107	Shamisen
405	0	0	108	Koto
406	0	96	108	Taisho-kin
407	0	97	108	Kanoon
408	0	0	109	Kalimba
409	0	0	110	Bagpipe
410	0	0	111	Fiddle
411	0	0	112	Shanai
			PERC	JSSIVE
412	0	0	113	Tinkle Bell
413	0	96	113	Bonang
414	0	97	113	Altair
415	0	98	113	Gamelan Gongs
416	0	99	113	Stereo Gamelan Gongs
417	0	100	113	Rama Cymbal
418	0	0	114	Agogo
419	0	0	115	Steel Drums
420	0	97	115	Glass Percussion
421	0	98	115	Thai Bells
422	0	0	116	Woodblock
423	0	96	116	Castanets
424	0	0	117	Taiko Drum
425	0	96	117	Gran Cassa
426	0	0	118	Melodic Tom
427	0	64	118	Melodic Tom 2
428	0	65	118	Real Tom
429	0	66	118	Rock Tom
430	0	0	119	Synth Drum
431	0	64	119	Analog Tom
432	0	65	119	Electronic Percussion
433	0	0	120	Reverse Cymbal
	-	-	SOUND	EFFECTS
434	0	0	121	Fret Noise
435	0	0	122	Breath Noise
436	0	0	123	Seashore
437	0	0	124	Bird Tweet
438	0	0	125	Telephone Ring
439	0	0	126	Helicopter
440	0	0	127	Applause
441	0	0	128	Gunshot
442	64	0	1	Cutting Noise
443	64	0	2	Cutting Noise 2
444	64	0	4	String Slap
444	64	0	17	Flute Key Click
+0				

	Bank	Select	MIDI				
Voice No.	MSB (0–127)	LSB (0–127)	Program Change# (1–128)	Voice Name			
446	64	0	33	Shower			
447	64	0	34	Thunder			
448	64	0	35	Wind			
449	64	0	36	Stream			
450	64	0	37	Bubble			
451	64	0	38	Feed			
452	64	0	49	Dog			
453	64	0	50	Horse			
454	64	0	51	Bird Tweet 2			
455	64	0	56	Maou			
456	64	0	65	Phone Call			
457	64	0	66	Door Squeak			
458	64	0	67	Door Slam			
459	64	0	68	Scratch Cut			
460	64	0	69	Scratch Split			
461	64	0	70	Wind Chime			
462	64	0	71	Telephone Ring 2			
463	64	0	81	Car Engine Ignition			
464	64	0	82	Car Tires Squeal			
465	64	0	83	Car Passing			
466	64	0	84	Car Crash			
467	64	0	85	Siren			
468	64	0	86	Train			
469	64	0	87	Jet Plane			
470	64	0	88	Starship			
471	64	0	89	Burst			
472	64	0	90	Roller Coaster			
473	64	0	91	Submarine			
474	64	0	97	Laugh			
475	64	0	98	Scream			
476	64	0	99	Punch			
477	64	0	100	Heartbeat			
478	64	0	101	Footsteps			
479	64	0	113	Machine Gun			
480	64	0	114	Laser Gun			
481	64	0	115	Explosion			
482	64	0	116	Firework			

The voice number with an asterisk (*) is XGlite optional voice.

- " " indicates that the drum sound is the same as "Standard Kit 1".
- · Each percussion voice uses one note.
- The MIDI Note # and Note are actually one octave lower than keyboard Note # and Note. For example, in "109: Standard Kit 1", the "Seq Click H" (Note# 36/Note C1) corresponds to (Note# 24/Note C0).
- Key Off: Keys marked "O" stop sounding the instant they are released.
 Voices with the same Alternate Note Number (*1 ... 4) cannot be played simultaneously. (They

are designed to be played alternately with each other.)

				N.			400	1 446		110	440
	M	SB(0-127	Voice 7) / LSB(0		PC(1-1	(28)	109 127/0/1	110 127/0/2	111 127/0/9	112 127/0/17	113 127/0/25
	Keyb		MI		Key	Alternate		Standard Kit 2			
	Note#	Note	Note#	Note	Off	Group	Standard Kit 1	Standard Kit 2	Room Kit	Rock Kit	Electronic Kit
	25	C# 0 D 0	13	C# -1 D -1		3	Surdo Mute				
	26 27	D# 0	14 15	D -1		3	Surdo Open Hi Q				
	28	E 0	16	E -1			Whip Slap				
	29	F 0	17	F -1		4	Scratch Push				
	30 31	F# 0 G 0	18 19	F# -1 G -1		4	Scratch Pull Finger Snap				
	32	G# 0	20	G# -1			Click Noise				
	33	A 0	21	A -1			Metronome Click				
	34 35	A# 0 B 0	22 23	A# -1 B -1			Metronome Bell Seq Click L				
	36	C 1	23	C 0			Seq Click H				
C1 C#1	37	C# 1	25	C# 0			Brush Tap				
D1	38	D 1	26	D 0	0		Brush Swirl				
E1	39 40	D# 1 E 1	27 28	D# 0 E 0	0		Brush Slap Brush Tap Swirl				Reverse Cymbal
F1	41	F 1	29	F 0	Ő		Snare Roll				
F#1	42	F# 1	30	F# 0			Castanet				Hi Q 2
G1	43 44	G 1 G# 1	31 32	G 0 G# 0			Snare H Soft Sticks	Snare H Soft 2		SD Rock H	Snare L
<mark>G≢1</mark> A1	44	A 1	33	A 0			Bass Drum Soft				Bass Drum H
A#1	46	A# 1	34	A# 0			Open Rim Shot	Open Rim Shot 2			
B1	47	B 1	35	B 0			Bass Drum Hard	Ross Drum 2		Bass Drum H	BD Rock
C2 C#2	48 49	C 2 C# 2	36 37	C 1 C# 1			Bass Drum Side Stick	Bass Drum 2		BD Rock	BD Gate
D2	50	D 2	38	D 1			Snare M	Snare M 2	SD Room L	SD Rock L	SD Rock L
E2 D#2	51	D# 2	39	D# 1			Hand Clap	_			
	52 53	E 2 F 2	40 41	E 1 F 1			Snare H Hard Floor Tom L	Snare H Hard 2	SD Room H Room Tom 1	SD Rock Rim Rock Tom 1	SD Rock H E Tom 1
F2 F#2	54	F# 2	41	F# 1		1	Hi-Hat Closed			ROCK TOTT I	
G2	55	G 2	43	G 1			Floor Tom H		Room Tom 2	Rock Tom 2	E Tom 2
G#2	56	G# 2	44	G# 1		1	Hi-Hat Pedal		D	Dud Turn	E Turno
A2 	57 58	A 2 A# 2	45 46	A 1 A# 1		1	Low Tom Hi-Hat Open		Room Tom 3	Rock Tom 3	E Tom 3
B2	59	B 2	40	B 1			Mid Tom L		Room Tom 4	Rock Tom 4	E Tom 4
C3	60	C 3	48	C 2			Mid Tom H		Room Tom 5	Rock Tom 5	E Tom 5
C#3	61 62	C# 3 D 3	49 50	C# 2 D 2			Crash Cymbal 1 High Tom		Room Tom 6	Rock Tom 6	E Tom 6
D3 D#3	63	D# 3	51	D# 2			Ride Cymbal 1		KOOIII TOIII O	ROCK TOILE	ETOINO
E3	64	E 3	52	E 2			Chinese Cymbal				
F3	65	F 3 F# 3	53	F 2 F# 2			Ride Cymbal Cup				
G3	66 67	F# 3 G 3	54 55	F# 2 G 2			Tambourine Splash Cymbal				
G#3	68	G# 3	56	G# 2			Cowbell				
A3	69	A 3	57	A 2			Crash Cymbal 2				
B3 A#3	70 71	A# 3 B 3	58 59	A# 2 B 2			Vibraslap Ride Cymbal 2				
C4	72	C 4	60	C 3			Bongo H				
——C#4	73	C# 4	61	C# 3			Bongo L				
D4	74 75	D 4 D# 4	62 63	D 3 D# 3			Conga H Mute Conga H Open				
E4	76	E 4	64	E 3			Conga L				
F4	77	F 4	65	F 3			Timbale H				
— F#4	78 79	F# 4 G 4	66 67	F# 3 G 3			Timbale L				
G4 G#4	80	G # 4	68	G# 3			Agogo H Agogo L				
A4	81	A 4	69	A 3			Cabasa				
B4 A#4	82	A# 4	70	A# 3			Maracas				
	83 84	B 4 C 5	71 72	B 3 C 4	0		Samba Whistle H Samba Whistle L				
C5 C#5	85	C# 5	73	C# 4			Guiro Short				
D5	86	D 5	74	D 4	0		Guiro Long				
E5	87 88	D# 5 E 5	75 76	D# 4 E 4			Claves Wood Block H				
	89	F 5	76	F 4			Wood Block L				
F5 F#5	90	F# 5	78	F# 4			Cuica Mute				Scratch Push
G5	91	G 5	79	G 4			Cuica Open				Scratch Pull
<mark>G≢5</mark> A5	92 93	G# 5 A 5	80 81	G# 4 A 4		2	Triangle Mute Triangle Open				
A#5	94	A# 5	82	A# 4		_	Shaker				
B5	95	B 5	83	B 4			Jingle Bell				
C6	96 97	C 6 C# 6	84 85	C 5 C# 5			Bell Tree				
	97 98	D 6	85	C# 5							
	99	D# 6	87	D# 5							
	100	E 6 F 6	88	E 5 F 5]
	101 102	F 6 F# 6	89 90	F 5							
	102	G 6	91	G 5							

			Voice				109	114	115	116	117
			7) / LSB(0				127/0/1	127/0/26	127/0/28	127/0/33	127/0/41
	Keyb Note#	Note	MI Note#	DI Note	Key Off	Alternate Group	Standard Kit 1	Analog Kit	Dance Kit	Jazz Kit	Brush Kit
	25	C# 0	13	C# -1		3	Surdo Mute				
	26	D 0	14	D -1		3	Surdo Open				
	27	D# 0	15	D# -1			HiQ				
	28	E 0	16	E -1			Whip Slap				
	29	F 0 F# 0	17 18	F -1 F# -1		4	Scratch Push Scratch Pull				
	30	F# 0	18	G -1		4	Finger Snap				
	32	G# 0	20	G# -1			Click Noise				
	33	A 0	21	A -1	-		Metronome Click				
	34	A# 0	22	A# -1			Metronome Bell				
	35	B 0	23	B -1			Seq Click L				
C1	36	C 1	24	C 0			Seq Click H				
C#1	37	C# 1	25	C# 0			Brush Tap				
D1	38	D 1	26	D 0	0		Brush Swirl				
E1 D#1	39 40	D# 1 E 1	27 28	D# 0 E 0	0		Brush Slap Brush Tap Swirl	Reverse Cymbal	Reverse Cymbal		
	40	F 1	20	F 0	0		Snare Roll	Reverse Cymbai	Reverse Cymbai		
F1 F#1	42	F# 1	30	F# 0	۲Ŭ		Castanet	Hi Q 2	Hi Q 2		
G1	43	G 1	31	G 0			Snare H Soft	SD Rock H	AnSD Snappy	SD Jazz H Light	Brush Slap L
G#1	44	G# 1	32	G# 0			Sticks				
A1	45	A 1	33	A 0			Bass Drum Soft	Bass Drum H	AnBD Dance-1		
A#1	46	A# 1	34	A# 0			Open Rim Shot		AnSD OpenRim		
B1	47	B 1	35	B 0			Bass Drum Hard	BD Analog L	AnBD Dance-2	DD Int	DD las
C2	48	C 2	36	C 1	-		Bass Drum	BD Analog H	AnBD Dance-3	BD Jazz	BD Jazz
C#2	49 50	C# 2 D 2	37 38	C# 1 D 1	-		Side Stick Snare M	Analog Side Stick Analog Snare 1	Analog Side Stick AnSD Q	SD Jazz L	Brush Slap
D2	50	D 2 D# 2	38	D 1 D# 1	-		Snare M Hand Clap	Androy Share I		JU Ja22 L	Brush Slap
E2	52	E 2	40	E 1	-		Snare H Hard	Analog Snare 2	AnSD Ana+Acoustic	SD Jazz M	Brush Tap
	53	F 2	41	F 1	<u> </u>		Floor Tom L	Analog Tom 1	Analog Tom 1	Jazz Tom 1	Brush Tom 1
F2 F#2	54	F# 2	42	F# 1		1	Hi-Hat Closed	Analog HH Closed 1	Analog HH Closed 3		
G2	55	G 2	43	G 1			Floor Tom H	Analog Tom 2	Analog Tom 2	Jazz Tom 2	Brush Tom 2
G#2	56	G# 2	44	G# 1		1	Hi-Hat Pedal	Analog HH Closed 2	Analog HH Closed 4		
A2	57	A 2	45	A 1			Low Tom	Analog Tom 3	Analog Tom 3	Jazz Tom 3	Brush Tom 3
B2 A#2	58	A# 2	46	A# 1		1	Hi-Hat Open	Analog HH Open	Analog HH Open 2	lana Tan A	Druch Terr 4
	59 60	B 2 C 3	47 48	B 1 C 2			Mid Tom L Mid Tom H	Analog Tom 4	Analog Tom 4	Jazz Tom 4 Jazz Tom 5	Brush Tom 4 Brush Tom 5
C3 C#3	61	C 3 C# 3	40	C 2 C# 2			Crash Cymbal 1	Analog Tom 5 Analog Cymbal	Analog Tom 5 Analog Cymbal	Jazz TUIII 5	Brush Tohi S
D3	62	D 3	50	D 2			High Tom	Analog Tom 6	Analog Tom 6	Jazz Tom 6	Brush Tom 6
D\$	63	D# 3	51	D# 2			Ride Cymbal 1	Analog Tom o		0022 10110	Drash rom o
E3	64	E 3	52	E 2			Chinese Cymbal				
F3	65	F 3	53	F 2			Ride Cymbal Cup				
F#3	66	F# 3	54	F# 2			Tambourine				
G3	67	G 3	55	G 2			Splash Cymbal				
— G#3	68	G# 3	56	G# 2			Cowbell	Analog Cowbell	Analog Cowbell		
A3	69 70	A 3 A# 3	57 58	A 2 A# 2			Crash Cymbal 2				
A#3 B3	70	A# 3 B 3	58	B 2			Vibraslap Ride Cymbal 2				
	72	C 4	60	C 3			Bongo H				
C4 C#4	73	C# 4	61	C# 3	<u> </u>		Bongo L				
D4	74	D 4	62	D 3			Conga H Mute	Analog Conga H	Analog Conga H		
D#4	75	D# 4	63	D# 3			Conga H Open	Analog Conga M	Analog Conga M		
E4	76	E 4	64	E 3			Conga L	Analog Conga L	Analog Conga L		
F4	77	F 4	65	F 3			Timbale H				
— F#4	78	F# 4	66	F# 3			Timbale L				
G4	79 80	G 4 G# 4	67 68	G 3 G# 3			Agogo H				
G#4 A4	80	G# 4	69	A 3			Agogo L Cabasa				
A4 A#4	82	A# 4	70	A# 3	-		Maracas	Analog Maracas	Analog Maracas		
B4	83	B 4	70	B 3	0		Samba Whistle H	i i i i i i i i i i i i i i i i i i i			
C5	84	C 5	72	C 4	0		Samba Whistle L				
C#5	85	C# 5	73	C# 4			Guiro Short				
D5	86	D 5	74	D 4	0		Guiro Long				
D#5	87	D# 5	75	D# 4			Claves	Analog Claves	Analog Claves		
E5	88	E 5	76	E 4			Wood Block H				
F5	89 90	F 5 F# 5	77 78	F 4 F# 4			Wood Block L	Scratch Push	Scratch Push		
F#5	90	0 -		F# 4 G 4	-		Cuica Mute	0	0		
G5 G#5	91	G 5 G# 5	79 80	G# 4		2	Triangle Mute	Scratch Pull	Scratch Pull		
A5	93	A 5	81	A 4		2	Triangle Open				
A#5	94	A# 5	82	A# 4			Shaker				
B5	95	B 5	83	B 4			Jingle Bell				
C6	96	C 6	84	C 5			Bell Tree				
	97	C# 6	85	C# 5							
	98	D 6	86	D 5							
	99	D# 6	87	D# 5	-						
	100	E 6	88	E 5							
	101	F 6 F# 6	89	F 5 F# 5							
	102		90								-
	103	G 6	91	G 5							

			Voice	No.			109	118	119	120	121
	M	SB(0-12	7) / LSB(0		PC(1-1	28)	127/0/1	127/0/49	126/0/1	126/0/2	126/0/113
	Keyb	oard	MIC		Key	Alternate	Standard Kit 1	Symphony Kit	SFX Kit 1	SFX Kit 2	Sound Effect Kit
	Note#	Note	Note#	Note	Off	Group		Symphony Kit	SIX KILI	JFA KILZ	Sound Ellect Kit
	25	C# 0	13	C# -1		3	Surdo Mute				
	26	D 0	14	D -1		3	Surdo Open				
	27 28	D# 0 E 0	15 16	D# -1 E -1			Hi Q Whip Slap				
	20	F 0	17	F -1		4	Scratch Push				
	30	F# 0	18	F# -1		4	Scratch Pull				
	31	G 0	19	G -1		-	Finger Snap				
	32	G# 0	20	G# -1			Click Noise				
	33	A 0	21	A -1			Metronome Click				
	34	A# 0	22	A# -1			Metronome Bell				
	35	B 0	23	B -1			Seq Click L				
1	36	C 1	24	C 0			Seq Click H				
C#1	37	C# 1	25	C# 0			Brush Tap				
1	38	D 1	26	D 0	0		Brush Swirl				
D#1	39	D# 1	27	D# 0			Brush Slap				
1	40	E 1	28	E 0	0		Brush Tap Swirl				_
1	41	F 1	29	F 0	0		Snare Roll				Drum Loop
F#1	42	F# 1 G 1	30	F# 0 G 0			Castanet Spare H Soft				
1	43 44	G 1 G# 1	31 32	G 0 G# 0			Snare H Soft Sticks				-
G#1	44 45	G# 1	32	A 0			Bass Drum Soft	Bass Drum L	-		-
1 —A#1	45	A# 1	33	A# 0			Open Rim Shot	Sass Brunt L			-
1	40	B 1	35	B 0			Bass Drum Hard	Gran Cassa			-
	48	C 2	36	C 1			Bass Drum	Gran Cassa Mute	Cutting Noise	Phone Call	Heartbeat
2 C#2	49	C# 2	37	C# 1			Side Stick		Cutting Noise 2	Door Squeak	Footsteps
2	50	D 2	38	D 1			Snare M	Marching Sn M		Door Slam	Door Squeak
D#2	51	D# 2	39	D# 1			Hand Clap		String Slap	Scratch Cut	Door Slam
2	52	E 2	40	E 1			Snare H Hard	Marching Sn H		Scratch	Applause
2	53	F 2	41	F 1			Floor Tom L	Jazz Tom 1		Wind Chime	Camera
—F#2	54	F# 2	42	F# 1		1	Hi-Hat Closed			Telephone Ring 2	Horn
2	55	G 2	43	G 1			Floor Tom H	Jazz Tom 2			Hiccup
G#2	56	G# 2	44	G# 1		1	Hi-Hat Pedal				Cuckoo Clock
2	57	A 2	45	A 1			Low Tom	Jazz Tom 3			Stream
A#2 2	58	A# 2	46	A# 1		1	Hi-Hat Open	L. T A			Frog
2	59 60	B 2 C 3	47 48	B 1 C 2			Mid Tom L Mid Tom H	Jazz Tom 4			Rooster
3	61	C# 3	48	C 2 C# 2				Jazz Tom 5 Hand Cym. L			Dog
C#3	62	D 3	49 50	D 2			Crash Cymbal 1 High Tom	Jazz Tom 6			Cat Owl
3	63	D# 3	51	D# 2			Ride Cymbal 1	Hand Cym.Short L			Horse Gallop
	64	E 3	52	E 2			Chinese Cymbal	Tianu Cym.onon L	Flute Key Click	Car Engine Ignition	Horse Neigh
	65	F 3	53	F 2			Ride Cymbal Cup			Car Tires Squeal	Cow
3 F#3	66	F# 3	54	F# 2			Tambourine			Car Passing	Lion
3	67	G 3	55	G 2			Splash Cymbal			Car Crash	Scratch
G#3	68	G# 3	56	G# 2			Cowbell			Siren	Yo!
3	69	A 3	57	A 2			Crash Cymbal 2	Hand Cym. H		Train	Go!
A#3	70	A# 3	58	A# 2			Vibraslap			Jet Plane	Get up!
3	71	B 3	59	B 2			Ride Cymbal 2	Hand Cym.Short H		Starship	Whoow!
4	72	C 4	60	C 3			Bongo H			Burst	
—C#4	73	C# 4	61	C# 3			Bongo L		_	Roller Coaster	4
4	74	D 4 D# 4	62	D 3			Conga H Mute			Submarine	-
D #4	75 76	D# 4 E 4	63 64	D# 3 E 3			Conga H Open				-
	76	E 4	65	F 3			Conga L Timbale H				-
4 — F#4	78	F# 4	66	F# 3			Timbale L				Huuaah!
4	79	G 4	67	G 3			Agogo H				1
G#4	80	G# 4	68	G# 3			Agogo L		Shower	Laugh	1
4	81	A 4	69	A 3			Cabasa		Thunder	Scream	1
—A#4	82	A# 4	70	A# 3			Maracas		Wind	Punch	
4	83	B 4	71	B 3	0		Samba Whistle H		Stream	Heartbeat	
5	84	C 5	72	C 4	0		Samba Whistle L		Bubble	Footsteps	
C#5	85	C# 5	73	C# 4			Guiro Short		Feed		4
5	86	D 5	74	D 4	0		Guiro Long				_
D#5 5	87	D# 5	75	D# 4			Claves				4
	88	E 5 F 5	76	E 4			Wood Block H				-
5 F#5	89 90	F 5 F# 5	77 78	F 4 F# 4			Wood Block L Cuica Mute				Uh!+Hit
5 5	90	G 5	79	G 4			Cuica Open				
ວ —G≢5	91	G# 5	80	G# 4		2	Triangle Mute				-
5	93	A 5	81	A 4		2	Triangle Open				1
A#5	94	A# 5	82	A# 4		-	Shaker				1
5	95	B 5	83	B 4			Jingle Bell				1
6	96	C 6	84	C 5			Bell Tree		Dog	Machine Gun	1
	97	C# 6	85	C# 5					Horse	Laser Gun	1
	98	D 6	86	D 5					Bird Tweet 2	Explosion	
	99	D# 6	87	D# 5						Firework	
	100	E 6	88	E 5							
	101	F 6	89	F 5							
	1 102	F# 6	90	F# 5							
	102 103	G 6	91	G 5					Maou		

Style No.	Style Name
	8 Beat
001	8BeatModern
002	60'sGtrPop
003	8BeatAdria
004	60's8Beat
005	8Beat
006	OffBeat
007	60'sRock
008	HardRock
009	RockShuffle
010	8BeatRock
	16 Beat
011	16Beat
012	PopShuffle
013	GuitarPop
014	16BtUptempo
015	KoolShuffle
016	HipHopLight
	Ballad
017	PianoBallad
018	LoveSong
019	6/8ModernEP
020	6/8SlowRock
021	OrganBallad
022	PopBallad
023	16BeatBallad
	Dance
024	EuroTrance
025	Ibiza
026	SwingHouse
027	Clubdance
028	ClubLatin
029	Garage1
030	Garage2
031	TechnoParty
032	UKPop
033	HipHopGroove
034	HipShuffle
035	HipHopPop
	Disco
036	70'sDisco
037	LatinDisco
038	SaturdayNight
039	DiscoHands

Style No.	Style Name
	Swing & Jazz
040	BigBandFast
041	BigBandBallad
042	JazzClub
043	Swing1
044	Swing2
045	Five/Four
046	Dixieland
047	Ragtime
	R & B
048	Soul
049	DetroitPop
050	6/8Soul
051	CrocoTwist
052	Rock&Roll
053	ComboBoogie
054	6/8Blues
	Country
055	CountryPop
056	CountrySwing
057	Country2/4
058	Bluegrass
	Latin
059	BrazilianSamba
060	BossaNova
061	Tijuana
062	DiscoLatin
063	Mambo
064	Salsa
065	Beguine
066	Reggae
	Ballroom
067	VienneseWaltz
068	EnglishWaltz
069	Slowfox
070	Foxtrot
071	Quickstep
072	Tango
073	Pasodoble
074	Samba
075	ChaChaCha
076	Rumba
077	Jive

Style No.	Style Name
	Traditional
078	USMarch
079	6/8March
080	GermanMarch
081	PolkaPop
082	OberPolka
083	Tarantella
084	Showtune
085	ChristmasSwing
086	ChristmasWaltz
087	ScottishReel
	Waltz
088	SwingWaltz
089	JazzWaltz
090	CountryWaltz
091	OberWalzer
092	Musette
	Children
093	Learning2/4
094	Learning4/4
095	Learning6/8
096	Fun 3/4
097	Fun 4/4
	Pianist
098	Stride
099	PianoSwing
100	PianoBoogie
101	Arpeggio
102	Habanera
103	SlowRock
104	8BeatPianoBallad
105	6/8PianoMarch
106	PianoWaltz

Music Database List

MDB No.	MDB Name				
	POP				
1	AlvFever				
2	DayPdise				
3	GoMyWay				
4	HowDeep!				
5	HurryLuv				
6	Imagine				
7	JustCall				
8	SultanSw				
9	WhitePle				
10	YesterPf				
	ROCK				
11	JumpRock				
12	PickUpPc				
13	RdRiverR				
14	SatsfyGt				
15	Sheriff				
16	SmokeWtr				
17	TwistAgn				
18	VenusPop				
DANCE					
19	2 of Us				
20	B Leave				
21	Back St				
22	Crockett				
23	FunkyTwn				
24	KillSoft				
25	Nine PM				
26	SingBack				
27	StrandD				
BALLAD					
28	AdelineB				
29	CatMemry				
30	ElvGhett				
31	Feeling				
32	Mn Rivr				
33	OnMyMnd				
34	OverRbow				
35	ReleseMe				
36	SavingLv				
37	SmokyEye				
38	WhisprSx				

MDB No.	MDB Name				
	R & B				
39	AmazingG				
40	BoogiePf				
41	Clock Rk				
42	CU later				
43	HappyDay				
44	RisingSn				
45	ShookUp				
46	TeddyBer				
	SWING & JAZZ				
47	ChooChoo				
48	HighMoon				
49	InMood				
50	MistySax				
51	MoonLit				
52	New York				
53	SaintMch				
54	ShearJz				
55	TstHoney				
56	USPatrol				
EASY LISTENING					
57	Close2U				
58	Entrtain				
59	LuvStory				
60	MyPrince				
61	PupetStr				
62	Raindrop				
63	R'ticGtr				
64	SingRain				
65	SmallWld				
66	SpkSoft				
67	StrangeN				
68	TimeGoes				
69	WhteXmas				
70	WishStar				
71	WondrWld				
	LATIN				
72	BambaLa				
73	BeHappy!				
74	CopaLola				
75	DayNight				
76	Ipanema				

MDB No.	MDB Name
77	MuchoTrp
78	Sunshine
79	Tico Org
80	TrbWave
	COUNTRY
81	BoxerFlt
82	CntryRds
83	Jambala
84	TopWorld
85	YlwRose
	BALLROOM
86	BrazilBr
87	CherryTp
88	DanubeWv
89	TangoAc
90	Tea4Two
	TRADITIONAL
91	CampRace
92	CielPari
93	GrndClok
94	JinglBel
95	MickMrch
96	Showbiz
97	StarMrch
98	WashPost
99	XmasWalz
100	YankDood

Harmony Types

No.	Harmony Type		Description			
01	Duet	If you wan	t to sound one of the harmony types 01–05, play keys to the right side of the			
02	Trio	Split Point	while playing chords in the left side of the keyboard after turning Auto Accompa-			
03	Block		One, two or three notes of harmony are automatically added to the note you			
04	Country	keys are p	n playing back a Song that includes chord data, harmony is applied whichever			
05	Octave	keys are p				
06	Trill 1/4 note					
07	Trill 1/6 note					
08	Trill 1/8 note)				
09	Trill 1/12 note		If you keep holding down two different notes, the notes alternate (in a trill) con- tinuously.			
10	Trill 1/16 note	₽				
11	Trill 1/24 note					
12	Trill 1/32 note	♪	-			
13	Tremolo 1/4 note					
14	Tremolo 1/6 note					
15	Tremolo 1/8 note	1				
16	Tremolo 1/12 note		If you keep holding down a single note, the note is repeated continuously. (The repeat speed differs depending on the selected type.)			
17	Tremolo 1/16 note	Å				
18	Tremolo 1/24 note		-			
19	Tremolo 1/32 note	₿				
20	Echo 1/4 note					
21	Echo 1/6 note					
22	Echo 1/8 note	1				
23	Echo 1/12 note		If you keep holding down a note, echo is applied to the note played. (The echo speed differs depending on the selected type.)			
24	Echo 1/16 note	A				
25	Echo 1/24 note					
26	Echo 1/32 note	Å				

• Reverb Types

No.	Reverb Type	Description
01–03	Hall 1–3	Concert hall reverb.
04–05	Room 1–2	Small room reverb.
06–07	Stage 1–2	Reverb for solo instruments.
08–09	Plate 1–2	Simulated steel plate reverb.
10	Off	No effect.

• Chorus Types

No.	Chorus Type	Description
1–2	Chorus 1–2	Conventional chorus program with rich, warm chorusing.
3–4	Flanger 1–2	This produces a rich, animated wavering effect in the sound.
5	Off	No effect.

YAMAHA Model PSH	PSR-E313/YPT-310	[Por	table Keyboard] MIDI Implementation Chart	Date:21-Aug-2006 Version:1.0
		Transmitted	Recognized	Remarks
Func	Function			
Basic Channel	Default Changed	1 - 16 x	1 - 16 x	
Mode	Default Messages Altered	3 X *****	εx	
Note Number :	True voice	0 - 127 **********	0 - 127 0 - 127	
Velocity	Note ON Note OFF	o 9nH,v=1-127 x	o 9nH,v=1-127 x	
After Touch	Key's Ch's	x	x	
Pitch Bend	I	x	0	
Control Change	0,32 1 6 38 7,10 11 71,73,74	о X X X O X O X X O X O X X X V X I X X X X X X X X X X X X X X X X X X	000×0000	Bank Select Modulation wheel Data Entry(MSB) Data Entry(LSB) Expression Sustain

72 84 91,93 96,97 100,101	0 X 0 X X	00000	Release Time Portamento Cntrl Effect 1,3 Depth RPN Inc,Dec RPN LSB,MSB
Prog Change : True #	0 0 - 127 **********	0 0 - 127	
System Exclusive	0	0	
: Song Pos. Common : Song Sel. : Tune	× ×	× ×	
System :Clock Real Time:Commands	0 0	0 0	
Aux : Reset All Cutrls Aux : Reset All Cutrls : Local ON/OFF Mes- : All Notes OFF sages: Active Sense : Reset	x x x x o x	o(120,126,127) o(121) o(122) o(123-125) x	
*1 Refer to #2 on page	84.		

ON MONO	OTO MONIO	, MUUNU
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NO		С ^г г,
OWNT		TNTNIO
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чω

Mode Mode

Yes No ο× **MIDI Implementation Chart**

NOTE:

- 1 By default (factory settings) the instrument ordinarily functions as a 16-channel multi-timbral tone generator, and incoming data does not affect the panel voices or panel settings. However, the MIDI messages listed below do affect the panel voices, auto accompaniment, and songs.
 - MIDI Master Tuning
 - System exclusive messages for changing the Reverb Type and Chorus Type.
- 2 Messages for these control change numbers cannot be transmitted from the instrument itself. However, they may be transmitted when playing the accompaniment, song or using the Harmony effect.
- 3 Exclusive
 - <GM System ON> F0H, 7EH, 7FH, 09H, 01H, F7H • This message automatically restores all default settings for the instrument, with the exception of MIDI Master Tuning.
 - <MIDI Master Volume> F0H, 7FH, 7FH, 04H, 01H, II, mm, F7H
 - This message allows the volume of all channels to be changed simultaneously (Universal System Exclusive).
 - The values of "mm" is used for MIDI Master Volume. (Values for "II" are ignored.)

- <MIDI Master Tuning> F0H, 43H, 1nH, 27H, 30H, 00H, 00H, mm, II, cc, F7H
 - This message simultaneously changes the tuning value of all channels.
 - The values of "mm" and "ll" are used for MIDI Master Tuning.
 - The default value of "mm" and "ll" are 08H and 00H, respectively. Any values can be used for "n" and "cc."
- <Reverb Type> F0H, 43H, 1nH, 4CH, 02H, 01H, 00H, mmH, IIH, F7H
 - mm : Reverb Type MSB
 - II : Reverb Type LSB
 - Refer to the Effect Map (page 84) for details.
- <Chorus Type> F0H, 43H, 1nH, 4CH, 02H, 01H, 20H, mmH, IIH, F7H
 - mm : Chorus Type MSB
 - II : Chorus Type LSB

Refer to the Effect Map (page 84) for details.

- 4 When the accompaniment is started, an FAH message is transmitted. When accompaniment is stopped, an FCH message is transmitted. When the clock is set to External, both FAH (accompaniment start) and FCH (accompaniment stop) are recognized.
- 5 Local ON/OFF <Local ON> Bn, 7A, 7F <Local OFF> Bn, 7A, 00 Value for "n" is ignored.

* When a Type LSB value is received that corresponds to no effect type, a value corresponding to the effect type (coming the closest to the specified value) is automatically set. * The numbers in parentheses in front of the Effect Type names correspond to the number indicated in the display.

REVERB

TYPE MSB					TYPE LSB				
	0	1	2	8	16	17	18	19	20
0	No Effect								
1	(01)Hall1				(02)Hall2	(03)Hall3			
2	Room					(04)Room1		(05)Room2	
3	Stage				(06)Stage1	(07)Stage2			
4	Plate				(08)Plate1	(09)Plate2			
5127	No Effect								

CHORUS

TYPE					TYPE LSB				
MSB	0	1	2	8	16	17	18	19	20
063	No Effect								
64	Thru								
65	Chorus		(2)Chorus2						
66	Celeste					(1)Chorus1			
67	Flanger			(3)Flanger1		(4)Flanger2			
68127	No Effect								

Keyboards

• 61 standard-size keys (C1-C6), with Touch Response

Display

· LCD display (backlit)

Setup

- STANDBY/ON
- MASTER VOLUME: MIN-MAX

Panel Controls

 [L]/[REC TRACK 2], [R]/[REC TRACK 1], [LISTEN & LEARN], [TIMING], [WAITING], [A-B REPEAT]/[ACMP ON/OFF], [REW]/[INTRO/ENDING/rit.], [FF]/[[MAIN/AUTO FILL],
 [TEMPO/TAP], [REC], [PAUSE]/[SYNC START], [START/STOP],
 [SONG], [STYLE], [VOICE], [FUNCTION], [PORTABLE GRAND], [MUSIC DATABASE], [REVERB ON/OFF], [DEMO],
 [METRONOME ON/OFF], [SPLIT ON/OFF], [DUAL ON/OFF],
 [HARMONY ON/OFF], [TOUCH ON/OFF], number buttons [0]–[9], [+/YES], [-/ NO]

Voice

- 108 panel voices + 12 drum kits + 1 sound effect kit + 359 XGlite voices + 2 XGlite optional voices
- Polyphony: 32
- DUAL
- SPLIT

Style

- 106 preset Styles + flash memory
- Style Control: ACMP ON/OFF, SYNC START, START/STOP, INTRO/ENDING/rit., MAIN/AUTO FILL
- Fingering: Multi fingering
- Style Volume
- Style Register

Education Feature

- · Chord Dictionary
- Lesson 1-3

Function

 Style Volume, Song Volume, Transpose, Tuning, Split Point, Touch Sensitivity, Style Register, Main voice (Volume, Octave, Chorus Send Level), Dual voice (Voice, Volume, Octave, Chorus Send Level), Split voice (Voice, Volume, Octave, Chorus Send Level), Reverb Type, Reverb level, Chorus Type, Panel Sustain, Harmony Type, Harmony Volume, PC mode (PC1/PC2/Off), Local On/Off, External Clock, Initial Setup Send, Time Signature (Numerator, Denominator), Metronome Volume, Lesson Track (R), Lesson Track (L), Demo Cancel

Effects

- Reverb: 9 types
- Chorus: 4 types
- Harmony: 26 types

Song

- 102 Preset Songs + 5 User Songs + Flash Memory
- Song Clear
- Song Volume

Music Database

• 100

Recording

 Song User Song: 5 Songs Recording Tracks: 1, 2

MIDI

· Local On/Off

- Initial Setup Send
- External Clock
- PC mode

Auxiliary jacks

• PHONES/OUTPUT, DC IN 12V, MIDI IN/OUT, SUSTAIN

Amplifier

• 2.5W + 2.5W

Speakers

• 12cm x 2

Power Consumption

10W (When using PA-130 power adaptor)

Power Supply

- Adaptor: Yamaha PA-130 or an equivalent
- · Batteries: Six "AA" size, LR6 or equivalent batteries

Dimensions (W x D x H)

- 945 x 370 x 128 mm
- (37-1/4" x 14-5/8" x 5-1/16")

Weight

4.9kg (10 lbs. 13 oz.) (not including batteries)

Supplied Accessories

- Music Rest
- Owner's Manual

Optional Accessories

- AC Power Adaptor: Yamaha PA-130 or an equivalent
- USB-MIDI Interface: UX16
- Footswitch: FC4/FC5
- Keyboard Stand: L-2C/L-2L
- Headphones: HPE-150/HPE-30
- * Specifications and descriptions in this owner's manual are for information purposes only. Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your Yamaha dealer.

Panel Controls and Terminals

A-B REPEAT button	41
ACMP ON/OFF button	21
DEMO button	19
DUAL ON/OFF button	13
FF button	19
FUNCTION button	33, 59
HARMONY ON/OFF button	
INTRO/ENDING/rit. Button	51
L button	
LISTEN & LEARN button	
MAIN/AUTO FILL button	
MASTER VOLUME control	9, 32
METRONOME ON/OFF button	
number buttons 0-9, +/YES, -/NO	33
PAUSE button	
PORTABLE GRAND button	15
R button	
REC button	
REC TRACK 1 button	
REC TRACK 2 button	
REVERB ON/OFF button	43
REW button	19
SONG button	18, 33
SPLIT ON/OFF button	14
STANDBY/ON switch	9, 32
START/STOP button	32
STYLE button	20, 33
SYNC START button	
TEMPO/TAP button	
TIMING button	37
TOUCH ON/OFF button	45
VOICE button	12, 33
WAITING button	38
DC IN 12V jack	8
MIDI IN/OUT terminal	
PHONES/OUTPUT jack	9
SUSTAIN jack	
5	

Alphabetical Order

A

AB Repeat	
AC Power Adaptor	
ACMP ON/OFF	
Auto Accompaniment	
Auto accompaniment range	

B

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Backup Clear	
Backup File	
Battery	
Beat Display	

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Cancel	
Chord	22, 55–56, 58
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Chord Display	
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Chorus Send Level (Dual)	
Chorus Send Level (Main)	59
Chorus Send Level (Split)	
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D

Delete (Song)	
Demo	
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Drum Kit List	
Dual	

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Musicsoft Downloader	65
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Recording	
Remote Control	
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Reverb Type List	
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Root	

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Save data to computer	
SMF Format 0	
Song	
Song List	
Song Volume	
Split	
Split Point	
Start	
Stop	
Style	
Style File	
Style List	
Style Volume	
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Synchro Start	
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Voice	

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Y		
YES		

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90 DAYS LABOR

1 YEAR PARTS

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- 3. Shipping and/or insurance costs are the consumers responsibility.* Units shipped for service should be packed securely.

*Repaired units will be returned PREPAID if warranty service is required within the first 90 days.

IMPORTANT: Do NOT ship anything to ANY location without prior authorization. A Return Authorization (RA) will be issued that has a tracking number assigned that will expedite the servicing of your unit and provide a tracking system if needed.

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Model_

_ Sales Slip #_____

Purchased from_

Date

(Retailer)

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Electronic Service Division 6600 Orangethorpe Avenue Buena Park, CA 90620

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