

OWNER'S MANUAL

MUSIC PRODUCTION SYNTHESIZER

Integrated Sampling Sequencer / Real-Time External Control Surface / Modular Synthesis Plug-in System

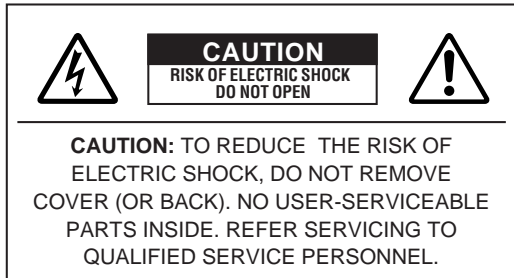
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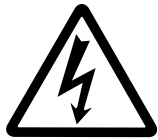
MOTIF8

SPECIAL MESSAGE SECTION

PRODUCT SAFETY MARKINGS: Yamaha electronic products may have either labels similar to the graphics shown below or molded/stamped facsimiles of these graphics on the enclosure. The explanation of these graphics appears on this page. Please observe all cautions indicated on this page and those indicated in the safety instruction section.



The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The lightning flash with arrowhead symbol, within the equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.

IMPORTANT NOTICE: All Yamaha electronic products are tested and approved by an independent safety testing laboratory in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. DO NOT modify this unit or commission others to do so unless specifically authorized by Yamaha. Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty may be denied if the unit is/has been modified. Implied warranties may also be affected.

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.

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:

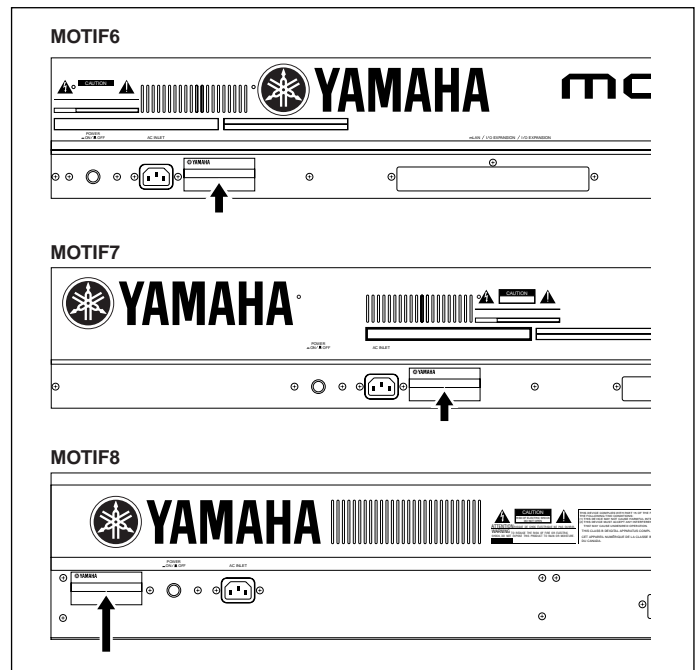
Battery Notice: This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

Warning: Do not attempt to recharge, disassemble, or incinerate this type of battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by applicable laws. Note: In some areas, the servicer is required by law to return the defective parts. However, you do have the option of having the servicer dispose of these parts for you.

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.

NOTICE: Service charges incurred due to 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.

NAME PLATE LOCATION: The graphic below indicates the location of the name plate. 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 _____

IMPORTANT SAFETY INSTRUCTIONS

INFORMATION RELATING TO PERSONAL INJURY, ELECTRICAL SHOCK, AND FIRE HAZARD POSSIBILITIES HAS BEEN INCLUDED IN THIS LIST.

WARNING- When using any electrical or electronic product, basic precautions should always be followed. These precautions include, but are not limited to, the following:

- 1.** Read all Safety Instructions, Installation Instructions, Special Message Section items, and any Assembly Instructions found in this manual BEFORE making any connections, including connection to the main supply.
- 2.** Do not attempt to service this product beyond that described in the user-maintenance instructions. All other servicing should be referred to qualified service personnel.
- 3.** Main Power Supply Verification: Yamaha products are manufactured specifically for the supply voltage in the area where they are to be sold. If you should move, or if any doubt exists about the supply voltage in your area, please contact your dealer for supply voltage verification and (if applicable) instructions. The required supply voltage is printed on the name plate. For name plate location, please refer to the graphic found in the Special Message Section of this manual.
- 4. DANGER-**Grounding Instructions: This product must be grounded and therefore has been equipped with a three pin attachment plug. If this product should malfunction, the ground pin provides a path of low resistance for electrical current, reducing the risk of electrical shock. If your wall socket will not accommodate this type plug, contact an electrician to have the outlet replaced in accordance with local electrical codes. Do NOT modify the plug or change the plug to a different type!
- 5. WARNING:** Do not place this product or any other objects on the power cord or place it in a position where anyone could walk on, trip over, or roll anything over power or connecting cords of any kind. The use of an extension cord is not recommended! If you must use an extension cord, the minimum wire size for a 25' cord (or less) is 18 AWG. NOTE: The smaller the AWG number, the larger the current handling capacity. For longer extension cords, consult a local electrician.
- 6.** Ventilation: Electronic products, unless specifically designed for enclosed installations, should be placed in locations that do not interfere with proper ventilation. If instructions for enclosed installations are not provided, it must be assumed that unobstructed ventilation is required.
- 7.** Temperature considerations: Electronic products should be installed in locations that do not seriously contribute to their operating temperature. Placement of this product close to heat sources such as; radiators, heat registers etc., should be avoided.
- 8.** This product was NOT designed for use in wet/damp locations and should not be used near water or exposed to rain. Examples of wet /damp locations are; near a swimming pool, spa, tub, sink, or wet basement.
- 9.** This product should be used only with the components supplied or; a cart ,rack, or stand that is recommended by the manufacturer. If a cart, rack, or stand is used, please observe all safety markings and instructions that accompany the accessory product.
- 10.** The power supply cord (plug) should be disconnected from the outlet when electronic products are to be left unused for extended periods of time. Cords should also be disconnected when there is a high probability of lightning and/or electrical storm activity.
- 11.** Care should be taken that objects do not fall and liquids are not spilled into the enclosure through any openings that may exist.
- 12.** Electrical/electronic products should be serviced by a qualified service person when:
 - a. The power supply cord has been damaged; or
 - b. Objects have fallen, been inserted, or liquids have been spilled into the enclosure through openings; or
 - c. The product has been exposed to rain; or
 - d. The product does not operate, exhibits a marked change in performance; or
 - e. The product has been dropped, or the enclosure of the product has been damaged.
- 13.** 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 a long period 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.
- 14.** Some Yamaha products may have benches and/or accessory mounting fixtures that are either supplied as a part of the product or as optional accessories. Some of these items are designed to be dealer assembled or installed. Please make sure that benches are stable and any optional fixtures (where applicable) are well secured BEFORE using. Benches supplied by Yamaha are designed for seating only. No other uses are recommended.

PLEASE KEEP THIS MANUAL

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

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



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/Power cord

- Only use the voltage specified as correct for the instrument. The required voltage is printed on the name plate of the instrument.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.
- Use only the supplied power cord/plug.
- Do not place the power 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

- This instrument contains no user-serviceable parts. Do not attempt to disassemble or modify the internal components in any way.

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 power 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 electric plug from the outlet, and have the instrument inspected by qualified Yamaha service personnel.



CAUTION

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/Power cord

- Always connect the three-pin attachment plug to a properly grounded power source. (For more information about the main power supply, see page 20.)
- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.
- Remove the electric plug from the outlet when the instrument is not to be used for extended periods of time, or during electrical storms.
- Do not connect the instrument to an electrical outlet using a multiple-connector. Doing so can result in lower sound quality, or possibly cause overheating in the outlet.

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 discoloration 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.
- Before moving the instrument, remove all connected cables.
- Do not place objects in front of the instrument's air vent, since this may prevent adequate ventilation of the internal components, and possibly result in the instrument overheating.

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 operate the instrument 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.

Backup battery

- This instrument has a built-in lithium backup battery. When you unplug the power cord from the AC outlet, the SRAM data (see page 63) is retained. However, if the backup battery fully discharges, this data will be lost. When the backup battery is running low, the LCD display indicates "Change internal battery." In this case, immediately save the data to a Memory Card (SmartMedia)/a SCSI disk then have qualified Yamaha service personnel replace the backup battery.

Saving data

Saving and backing up your data

For instruments with DRAM (RAM that does not retain data)

- DRAM data (see page 63) is lost when you turn off the power to the instrument. Save the data to a Memory Card (SmartMedia)/a SCSI disk.

For instruments with SRAM (RAM that retains data by using a lithium battery)

- SRAM data (see page 63) is retained when the power is turned off, as long as the backup battery retains a charge. However, the data could be lost due to malfunction or incorrect operation. Save important data to a Memory Card (SmartMedia)/a SCSI disk.

Backing up the Memory Card (SmartMedia)/SCSI disk

- To protect against data loss through media damage, we recommend that you save your important data onto two Memory Cards (SmartMedia)/SCSI disk.

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.

Make sure to discard used batteries according to local regulations.

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)

IMPORTANT NOTICE FOR THE UNITED KINGDOM

Connecting the Plug and Cord

WARNING: THIS APPARATUS MUST BE EARTHED
IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW	:EARTH
BLUE	:NEUTRAL
BROWN	:LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol or colored GREEN or GREEN-and-YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

* This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd. (3 wires)

ADVARSEL!

Lithiumbatteri—Eksplodingsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandoren.

VARNING

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

(lithium caution)

NEDERLAND / THE NETHERLANDS

- Dit apparaat bevat een lithium batterij voor geheugen back-up.
- This apparatus contains a lithium battery for memory back-up.
- Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat aan het einde van de levensduur afdankt of de volgende Yamaha Service Afdeling:

Yamaha Music Nederland Service Afdeling
Kanaalweg 18-G, 3526 KL UTRECHT
Tel. 030-2828425

- For the removal of the battery at the moment of the disposal at the end of the service life please consult your retailer or Yamaha Service Center as follows:

Yamaha Music Nederland Service Center
Address :Kanaalweg 18-G, 3526 KL UTRECHT
Tel :030-2828425

- Gooi de batterij niet weg, maar lever hem in als KCA.
- Do not throw away the battery. Instead, hand it in as small chemical waste.

(lithium disposal)

Introduction

Congratulations and thank you for your purchase of the Yamaha MOTIF Music Production Synthesizer!

You now own what is perhaps the best-sounding, most versatile, and certainly most powerful synthesizer and total music production instrument on the planet.

We strove to put virtually all our synthesizer technology and music making know-how into one instrument — and we succeeded. The new MOTIF not only gives you the latest and greatest sounds and rhythms (as well as the ability to create and sample your own), it gives you powerful, easy-to-use tools for playing, combining and controlling these dynamic sounds/rhythms — in real time, as you perform!

Take time to look through this manual carefully. It's packed with important information on how to get the most from this amazing instrument.

Dive in now and enjoy!

Package Contents

The following items have been included with your MOTIF. Check to see that you have everything listed here.

- Synthesizer • AC Power cord • CD-ROM x 3
- Owners Manual (this book) • Data List • Installation Guide

About the included CD-ROM

The accompanying CD-ROM features special software for use with the MOTIF. Included is a Voice Editor, which gives you comprehensive and intuitive editing tools for the MOTIF, and a File Manager, which lets you easily transfer data between the storage device connected to your MOTIF and a computer. For details, see the separate Installation Guide or the online manuals included with the software.



Do NOT attempt to play back Track 1 (which contains the software data) on an audio CD player. Doing so may result in damage to your audio equipment and speakers, as well as your hearing.

About This Manual

This manual consists of the following sections.

- **The Controls & Connectors** Use this section to find out about all of the buttons, controls and connectors of the MOTIF.
 - **Setting Up** Before going on to any other part of the manual, we strongly suggest you read this section first. It shows you how to get started playing and using your new MOTIF.
 - **Basic Structure** This section provides a detailed overview of all of the main functions and features of the MOTIF, and shows how they fit together.
 - **Basic Operation** This section introduces you to the basic operating conventions of the MOTIF, such as editing values and changing settings.
 - **Quick Start Guide** In this tutorial section, you'll take a guided tour through the various functions of the MOTIF, and get some hands-on experience in playing and using it.
 - **Reference** The MOTIF encyclopedia. This section explains all parameters, settings, functions, features, modes and operations in full detail.
 - **Appendix** This section contains detailed information on the MOTIF such as Specifications and an Alert Message List as well as instructions for installing optional equipment (e.g., SIMM modules, AIEB2, mLAN8E interface, and Plug-in Boards).
 - **Data List (separate booklet)** This contains various important lists such as the Voice List, Preset Pattern Phrase List, Effect List, MIDI Data Format, and MIDI Implementation Chart.
 - **Installation Guide (separate booklet)** Refer to this for instructions on installing the included software programs (on the CD-ROM) to your computer.
- Copying of the commercially available music sequence data and/or digital audio files is strictly prohibited, except for your own personal use.
 - 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.
 - The company names and product names in this Owner's Manual are the trademarks or registered trademarks of their respective companies.

Important Features

- Wide range of **dynamic and authentic voices** — over 512 in total, with 49 drum kits. Use the **Category Search** function to quickly call up the sounds you want, based on their instrument type.
- **Performance mode** lets you use four different voices together — in layers or in a keyboard split.
- **Integrated Sampling Sequencer** — seamlessly combines audio and MIDI recording.
 - * Full **Sample recording and editing** features, with 4MB of memory (expandable to 64MB).
 - * Wide **data compatibility** lets you load AIFF and WAV files, as well as samples and program/voice data from other samplers.
 - * Convenient **Resampling** function lets you sample the sound of the MOTIF itself directly. Play your own melodies, riffs and rhythms — and use them as samples.
 - * Unique **Slice feature** automatically chops up your rhythms and riffs into their individual beats and notes. This lets you manipulate the component parts of your sample loops as MIDI data — and gives you the power to easily change tempo and even the rhythmic feel, without disturbing the pitch or sound quality.
 - * Using the **Song mode**, record your music to the **sequencer** in conventional linear fashion, from beginning to end. Or use the **phrase-based functions** to assemble rhythms and patterns — “playing” your arrangements in real time.
- Extensive **effect processing**, with Reverb (12 types), Chorus (25 types), two separate Insertion sections (total 104 types), a Variation section (25 types), and a Master 5-band EQ.
- Comprehensive **real-time control with four knobs and four sliders** — letting you adjust filter, levels, effects, EG, and more, while you play.
- **Pattern mode** functions let you craft different rhythmic sections and riffs as individual elements — which you can easily and intuitively combine in real time to create full rhythm tracks.
- The built-in **Arpeggio** feature not only puts a wealth of hip rhythmic sequences at your fingertips, it even has special “human” patterns — such as guitar strumming and woodwind trills.
- Once you’ve collected all the audio samples, loops, MIDI data, and patterns you need for your song, use **Pattern Chain** to arrange the pieces in real time. This hands-on approach makes it easier than ever to come up with great ideas and amazing songs.
- **Song Scene** is another powerful tool that lets you take “snapshots” of the sequencer track settings (such as pan, volume, and others). Then, during playback or recording, simply switch among the Scenes for instant, dynamic changes.
- **Master mode** for using the MOTIF as a master keyboard controller (with independent Zones), and for easily reconfiguring the instrument between Voice/Performance play and Song/Pattern play in live applications.
- Exceptionally **easy-to-understand interface** with two-tiered operation buttons: [F1] - [F6] and [SF1] - [SF5]
- **Remote Control** — for operating your favorite sequencing software from the panel controls of the MOTIF. Mute tracks, control transport (Play, Stop, Record, etc.), mix both MIDI and audio tracks (up to 16) with the MOTIF’s knobs and sliders, pan the tracks, control EQ, and tweak effect sends — all without ever touching the mouse.
- Three **Modular Synthesis Plug-in System** slots let you upgrade the MOTIF with a completely new synthesizer or sound-processing engine. These Plug-in boards give you more voices, more effects, more polyphony and more instrument parts. Plus, special Plug-in voices have already been programmed and stored to the MOTIF, ready to be played as soon as you install the proper board.
- **Comprehensive I/O terminals** — including assignable outputs, audio inputs, optical digital output, MIDI, USB for multi-port connection to a computer, SmartMedia card slot and SCSI terminal for data storage. There’s even an expansion bay for installing the optional AIEB board for additional ins and outs — both analog and digital.
- Expansion bay for optional mLAN — Yamaha’s new **mLAN interface** technology makes it possible to transfer all your digital audio and MIDI data via a single broad-band cable.
- **Included software** — Packed with your MOTIF are two powerful software programs: **Voice Editor** and **File Utility**. The Voice Editor puts all the comprehensive editing features and parameters of the instrument right on your computer screen for easy editing. With File Utility, you can access and organize all your important MOTIF data (stored to Memory card or SCSI device) directly from the computer.

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The Controls & Connectors

Setting Up

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Voice mode

Performance mode

Song mode

Pattern mode

Sample mode

Utility mode

File mode

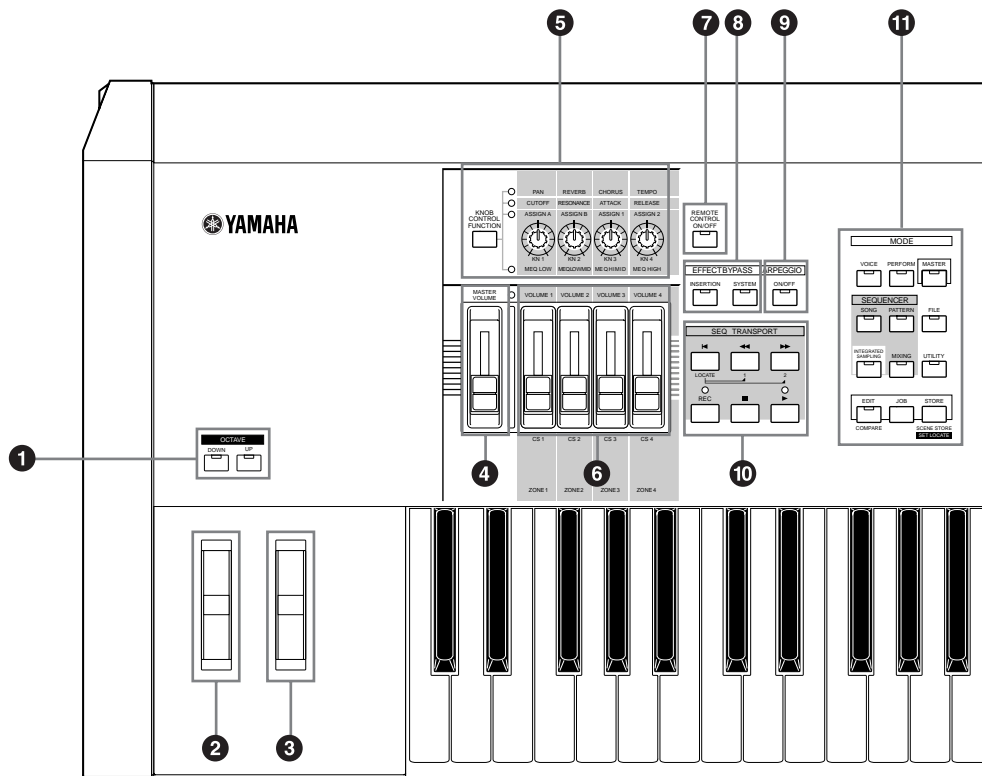
Master mode

Appendix

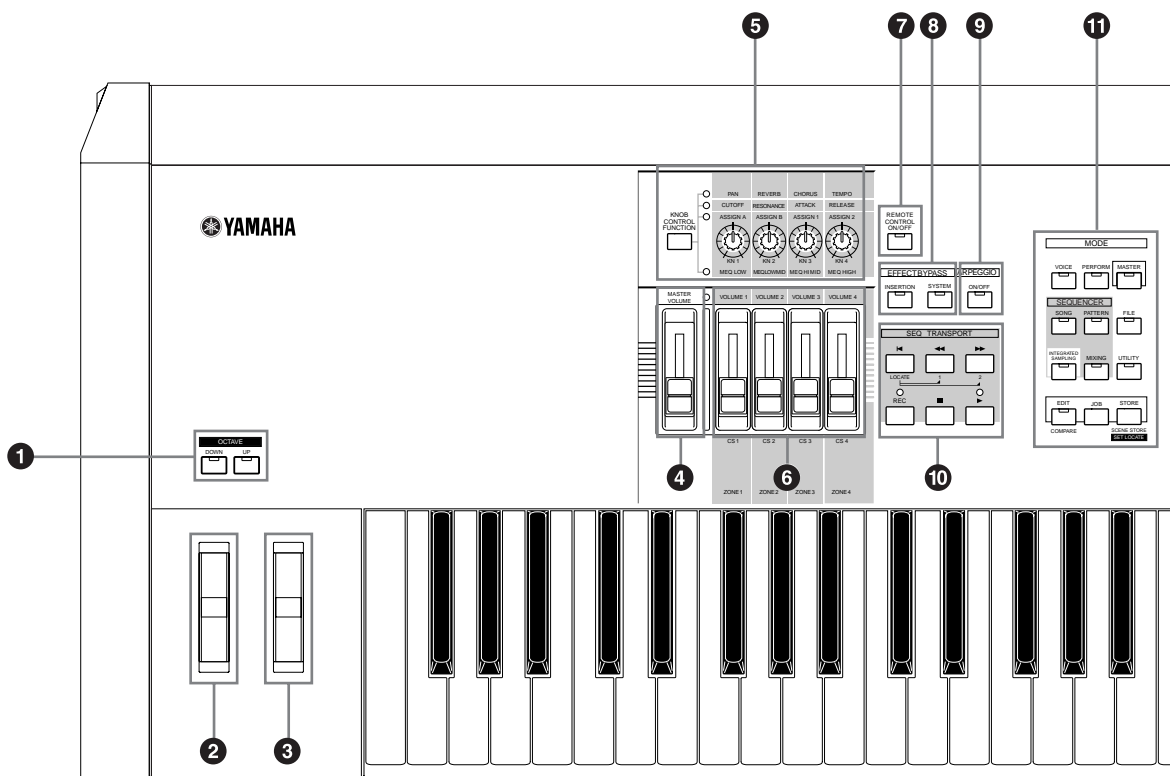
The Controls & Connectors

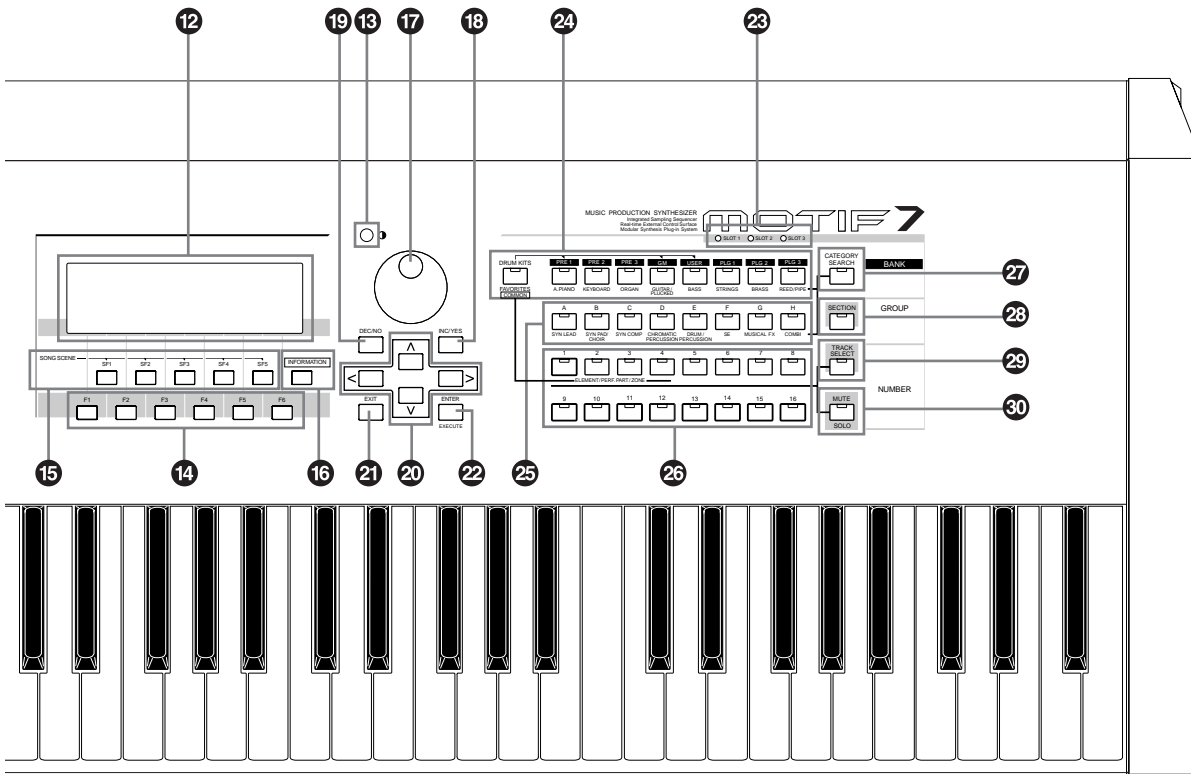
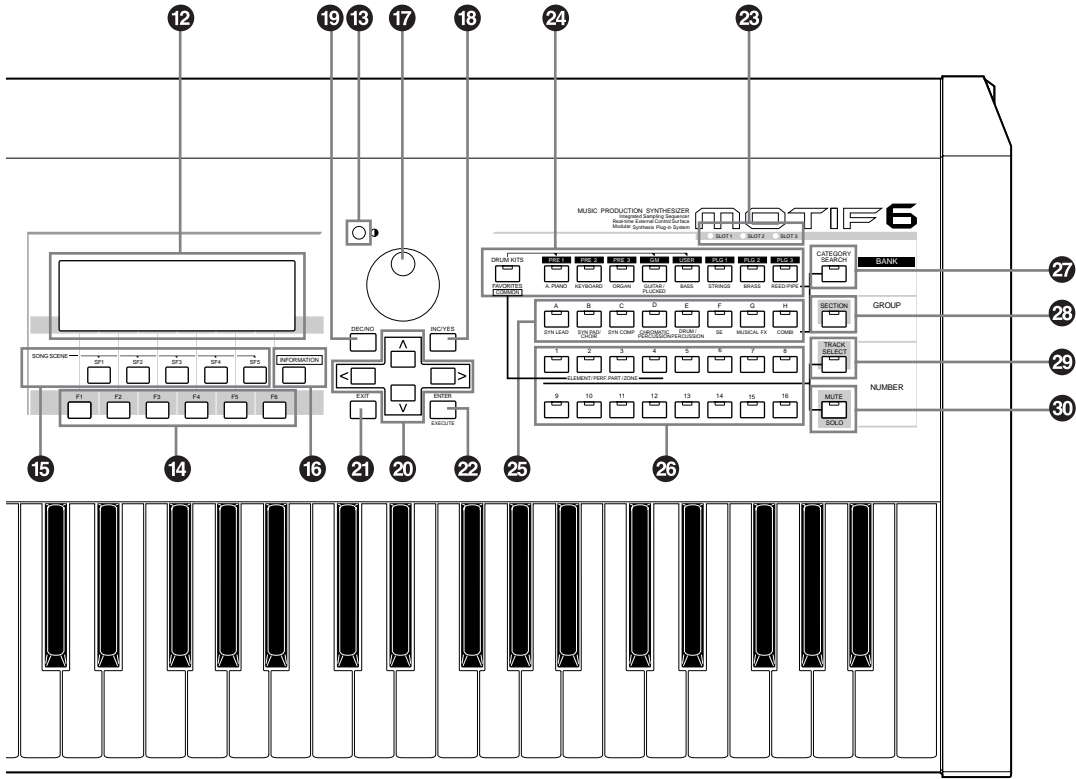
Front Panel MOTIF6

The Controls & Connectors

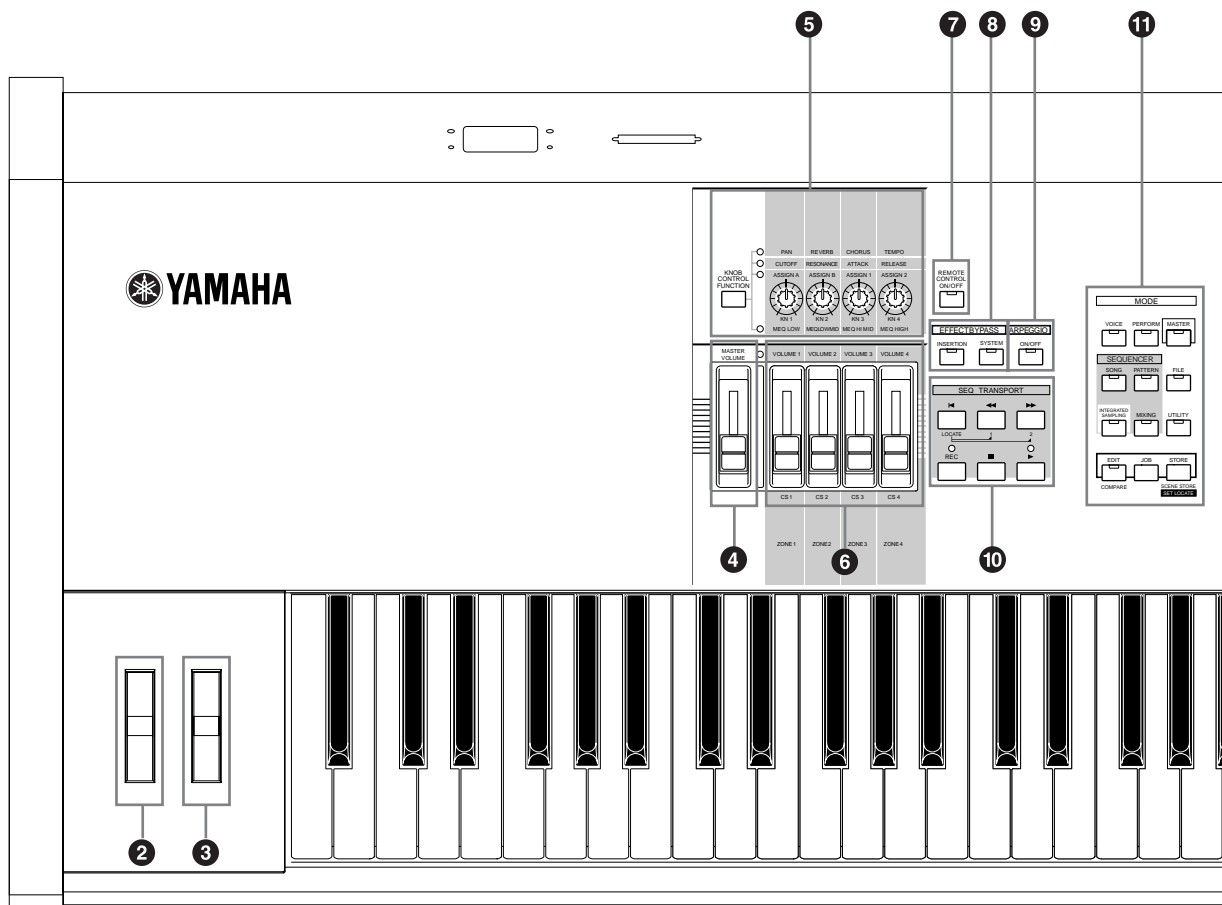


MOTIF7





MOTIF8



1 OCTAVE [UP] and [DOWN] buttons (page 127)

Use these buttons to change the note range of the keyboard. To restore the normal octave setting, press both buttons simultaneously.

NOTE Because of its extended keyboard, the MOTIF 8 does not have OCTAVE buttons.

2 PITCH bend wheel (page 48)

Controls the pitch bend effect. You can also assign other functions to this controller.

3 MODULATION wheel (page 48)

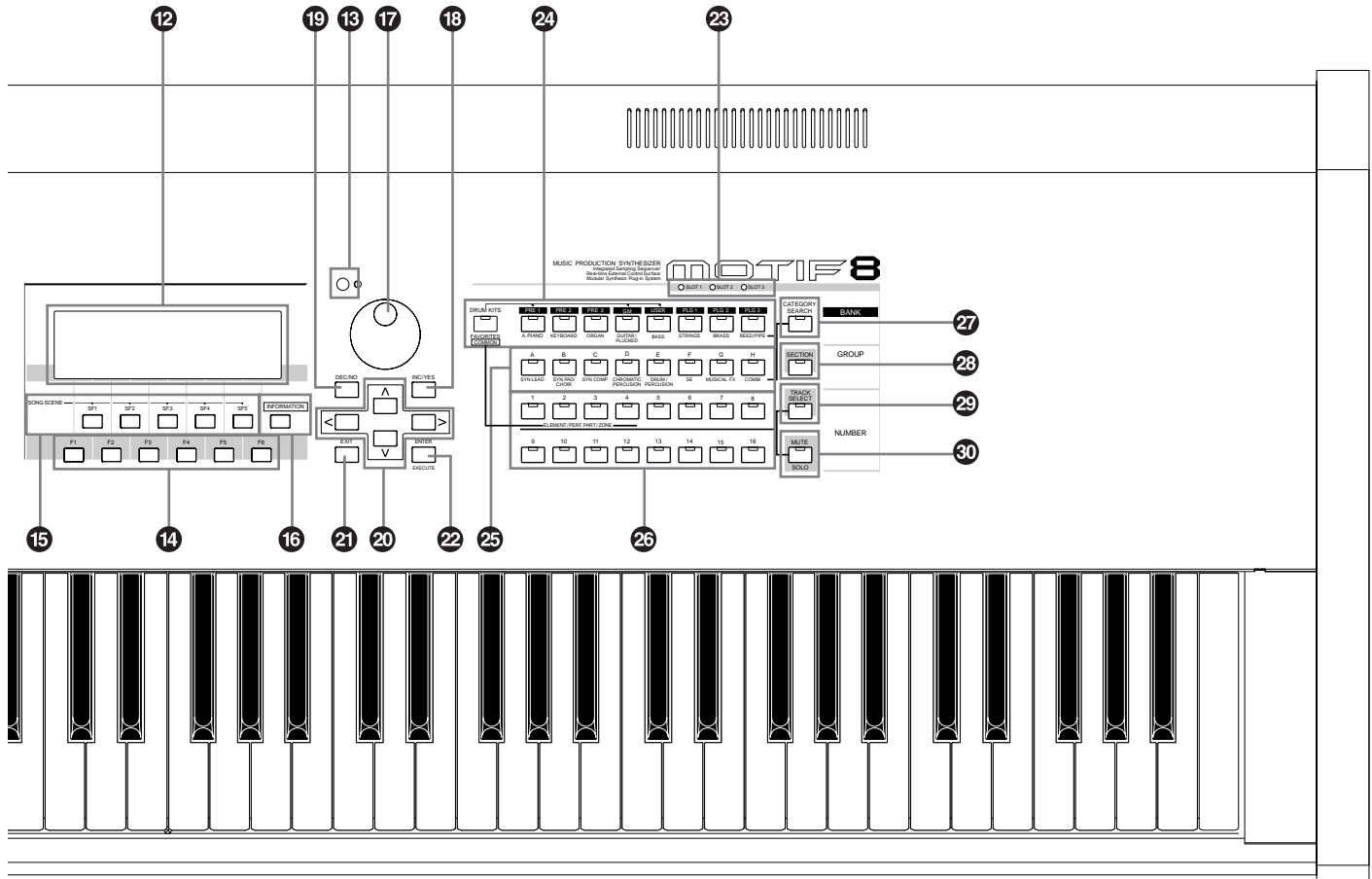
Controls the modulation effect. You can also assign other functions to this controller.

4 MASTER VOLUME

Adjusts the volume of the overall sound, as output from the rear-panel OUTPUT L/MONO and R jacks as well as the PHONES jack.

5 [KNOB CONTROL FUNCTION] button and four Knobs (pages 48, 132)

These four highly versatile knobs let you adjust various aspects or parameters of the current Voice. Use the [KNOB CONTROL FUNCTION] button to change the parameter set for the knobs. The corresponding LED lights to indicate which group of parameters are active.



6 [CS1] - [CS4] (Control Slider) (page 48)

Controls the volume of each part/element.
 In the Master mode, the Zone setting (page 271) allows you to assign various functions (Control Change numbers) to these Sliders other than the volume.

7 [REMOTE CONTROL ON/OFF] button (page 256)

When this is on, the following panel controls can be used to directly control mixing and transport functions on your sequencer software.

- Knobs
- Control Sliders
- [SEQ TRANSPORT] buttons
- [TRACK SELECT] button
- [MUTE] button

8 [EFFECT BYPASS] buttons

For enabling/disabling Effect Bypass. Press the button (the LED lights) to bypass effect processing of the current Voice or Performance. The bypassed effects (Reverb, Chorus, Variation, or Insertion) are specified in the Utility Mode (page 250).

9 [ARPEGGIO ON/OFF] button (page 55)

Press this button to enable or disable playback of the Arpeggio for each Voice, Performance, Song, or Pattern. If the Arpeggio Switch of the selected part is set to off in the Performance/Song/Pattern mode, however, pressing this button has no effect.

10 SEQ TRANSPORT buttons (page 78, 179, 183, 217, 221)

These buttons control recording and playback of the Song/Pattern sequence data.

[⏪](Top) button

Instantly returns to the first beginning of the current song or pattern (i.e., the first beat of the first measure).

[⏮](Reverse) button

Press briefly to move back one measure at a time, or hold to continuously rewind.

[⏭](Forward) button

Press briefly to move forward one measure at a time, or hold to continuously fast-forward.

[REC] (Record) button

Press this to enable recording (Song or pattern phrase). (The indicator lights.)

[■](Stop) button

Press to stop recording or playback.

[▶](Play) button

Press to start playback from the current point in the song or pattern. During recording and playback, the indicator flashes at the current tempo.

11 MODE buttons (page 67)

These buttons select the MOTIF operating modes (e.g., Voice mode).

12 LCD Display

The MOTIF's large backlit LCD displays the parameters and values related to the currently selected operation or mode.

13 LCD Contrast Control

Use this control to set the LCD display for optimum legibility.

14 [F1] - [F6] (Function) buttons (page 71)

These buttons located directly below the LCD display call up the corresponding functions indicated in the display. In the display hierarchy, these functions [F] rank just below the modes.

15 [SF1] - [SF5] (Sub Function) buttons (page 71)

These buttons located directly below the LCD display call up the corresponding sub functions indicated in the display. In the display hierarchy, these sub functions [SF] rank just below the functions [F].

These buttons can be also used to store/recall the Song Scene (page 115) in the Song Play/Song Record/Pattern Chain Record modes.

16 [INFORMATION] button (page 73)

For calling up a special "help" feature that shows information about the currently selected mode. You can go back to the previous display by pressing this button again or pressing any other button.

17 Data dial (page 72)

For editing (changing the value of) the currently selected parameter. To increase the value, turn the dial right (clockwise); to decrease the value, turn the dial left (counter-clockwise). If a parameter with a wide value range is selected, you can change the value in broader strokes by quickly turning the dial.

18 [INC/YES] button (page 72)

For increasing the value of the currently selected parameter. Also use it to actually execute a Job or a Store operation.

19 [DEC/NO] button (page 72)

For decreasing the value of the currently selected parameter. Also use it to cancel a Job or a Store operation.

NOTE When editing (changing) the value of the parameter, it is convenient to use the [INC/YES] button and the [DEC/NO] button simultaneously. Pressing the [DEC/NO] button while holding the [INC/YES] button increases the value by 10. Pressing the [INC/YES] button while holding the [DEC/NO] button decreases the value by 10.

20 Cursor Buttons (page 72)

The cursor buttons move the "cursor" around the LCD display screen, highlighting and selecting the various parameters.

21 [EXIT] button (page 72)

The menus and displays of the MOTIF are organized according to a hierarchical structure. Press this button to exit from the current display and return to the previous level in the hierarchy.

22 [ENTER] button

Use this button to execute a Job or a Store operation. Also use this button to actually enter a number when selecting a Memory or Bank for Voice or Performance. In the File mode, use this button to go to the next lowest level in the selected directory.

23 SLOT 1-3 lamps (page 282)

These three lamps show the installation status of the Plug-in Boards. If the Plug-in Board has been correctly installed, the corresponding SLOT lamp will light.

NOTE The Vocal Harmony Plug-in Board (PLG100-VH) can be installed only to slot 1. It cannot be installed to slot 2 or 3.

NOTE The Multi part Plug-in Board (PLG100-XG) can be installed only to slot 3. It cannot be installed to slot 1 or 2.

24 BANK buttons (page 124)

Each button selects a Voice or Performance Bank. When the [CATEGORY SEARCH] button is turned on, these buttons can be used to select the desired category (printed below each button). When the [SECTION] button is turned on in the Pattern mode, these buttons are used to select the desired section.

25 GROUP [A] - [H] buttons (page 124)

Each button selects a Voice or Performance Group. When the [CATEGORY SEARCH] button is turned on, these buttons can be used to select the desired category (printed below each button). When the [SECTION] button is turned on in the Pattern mode, these buttons are used to select the desired section.

26 NUMBER [1] - [16] buttons (page 124)

Use of these buttons differs depending on the on/off status of the [TRACK SELECT] and [MUTE] buttons.

	Functions of the NUMBER [1] - [16] buttons		
	When [TRACK SELECT] is on	When [MUTE] is on	When both [TRACK SELECT] [MUTE] are off
Voice Play mode	Keyboard transmit channel setting	—	Voice selection, according to Groups A - H
Voice Edit mode	Element selection(1 - 4) and Element Mute setting(9 - 12)		—
Performance Play mode	Keyboard transmit channel setting	Performance part Mute setting (1 - 4)	Performance or Voice selection (if cursor is located at Voice name), according to Groups A - H
Performance Edit mode	Performance part selection (1 - 4)		
Master Play mode	Zone selection (1 - 4)	—	Master selection, according to Groups A - H
Master Edit mode	Zone selection (1 - 4)	Zone Mute setting (1 - 4)	—
Song/Pattern mode	Song/Pattern track selection	Song/Pattern track Mute setting	Song/Style selection, according to Groups A - H
Song/Pattern Mixing mode	Song/Pattern part selection	Song/Pattern part Mute setting	

27 [CATEGORY SEARCH] button (page 126)

When this button is turned on in the Performance mode, the [BANK] and [GROUP] buttons can be used to select the Performance category. When this button is turned on in another mode, the [BANK] and [GROUP] buttons can be used to select the Voice category.

28 [SECTION] button (page 218)

When this button is turned on in the Pattern mode, the [BANK] and [GROUP] buttons can be used to select the Pattern Section.

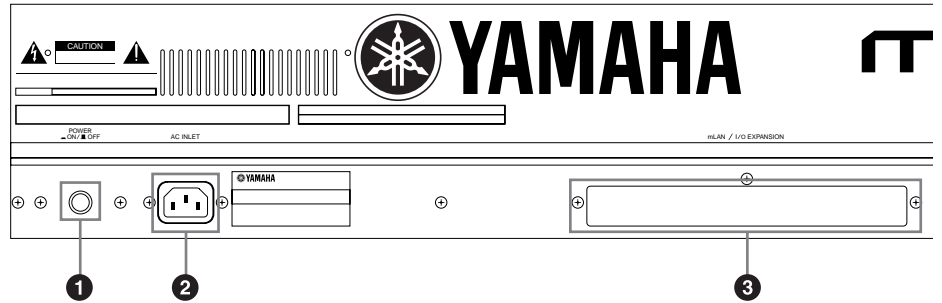
29 [TRACK SELECT] button (page 181)

Turning this button on in the Song/Pattern mode enables the NUMBER [1] - [16] buttons for selecting corresponding Song/Pattern tracks. The on/off status of this button affects the NUMBER [1] - [16] buttons in different ways, depending on the selected mode. (See 26 “NUMBER [1] - [16] buttons” above.)

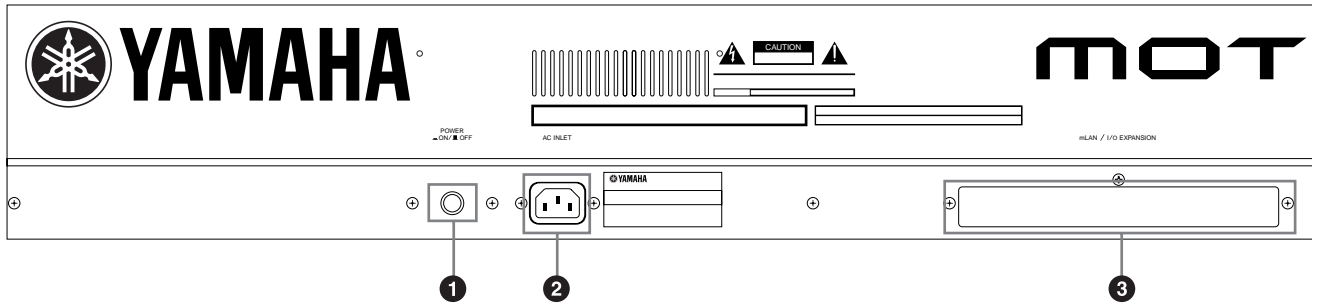
30 [MUTE] button (page 180)

Turning this button on in the Song/Pattern mode enables the NUMBER [1] - [16] buttons for muting corresponding Song/Pattern tracks. Press one of the NUMBER [1] - [16] buttons while holding this button to solo the corresponding track of the current selected Song/Pattern. The on/off status of this button affects the NUMBER [1] - [16] buttons in different ways, depending on the selected mode. (See 26 “NUMBER [1] - [16] buttons” above.)

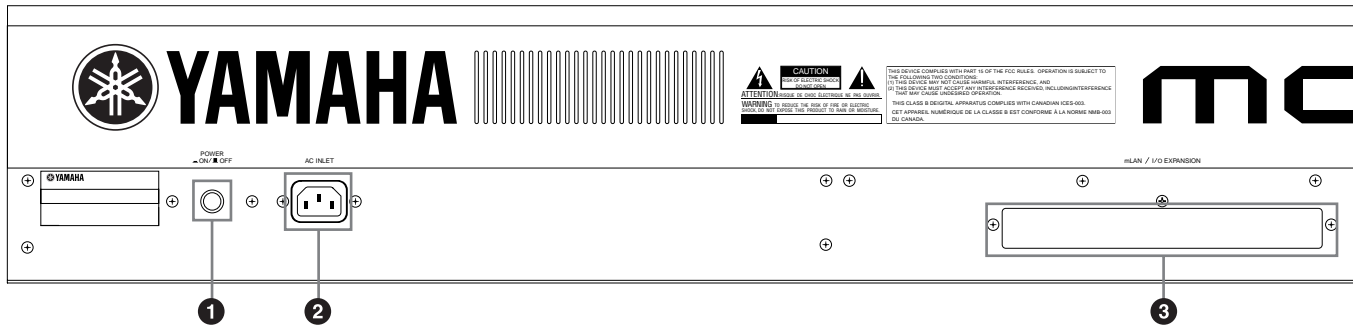
Rear Panel MOTIF6

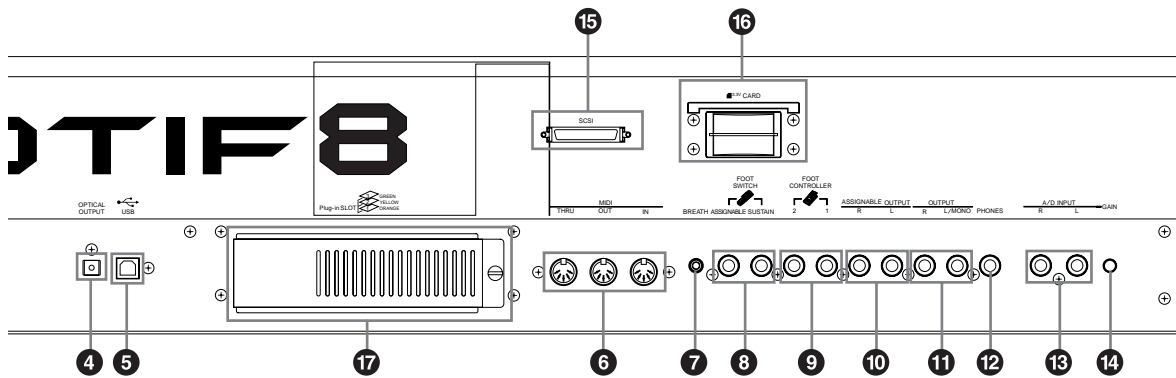
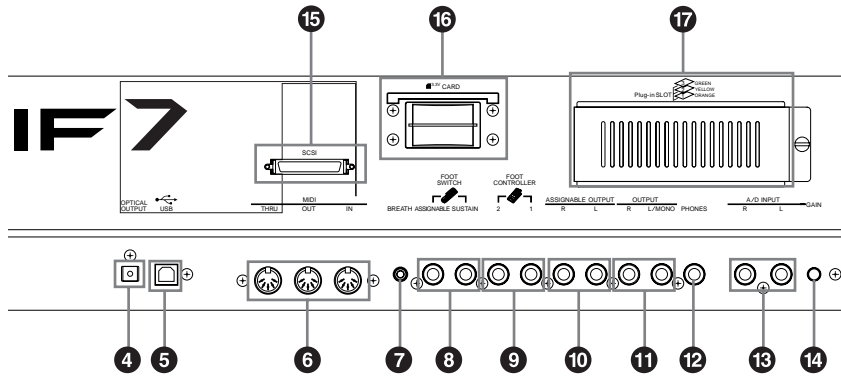
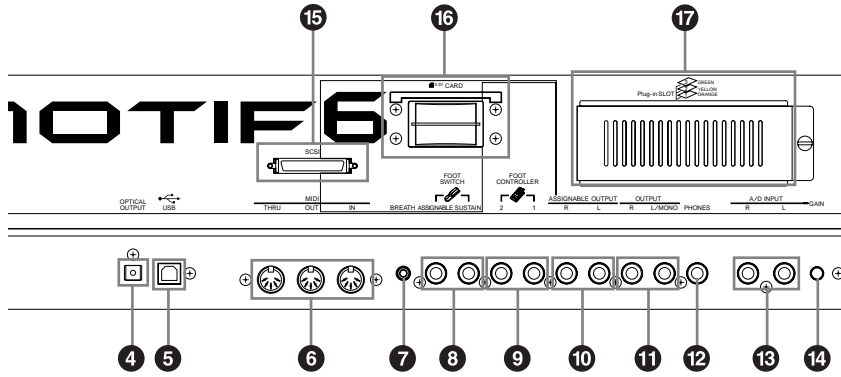


MOTIF7



MOTIF8





1 POWER Switch (page 29)

Press to turn power ON or OFF.

2 AC Power Cord Socket (page 20)

Be sure the plug the AC power cord into this socket before plugging the power cord into an AC outlet. Use only the AC power cord supplied with the MOTIF. If the supplied cord is lost or damaged and needs to be replaced, contact your Yamaha dealer. The use of an inappropriate replacement can pose a fire and shock hazard!

3 mLAN expansion board (mLAN8E) or I/O expansion board (AIEB2) cover (page 22)

Either the mLAN expansion board (mLAN8E) or the I/O expansion board (AIEB2) sold separately can be installed to the MOTIF.

With the mLAN8E board, you can conveniently and easily hook up your MOTIF to other mLAN-compatible instruments or devices. The AIEB2 board gives you additional digital I/O options, featuring both optical and coaxial connectors. Moreover, the board also includes three stereo ASSIGNABLE OUTPUT pairs (six analog jacks).

4 OPTICAL OUT connectors (page 22)

For output of digital audio, via optical fiber cables (at 44.1kHz).

5 USB connector (page 25)

For connection to a computer having a USB interface. The USB interface provides multi-port MIDI operation not possible with a single MIDI connection.

NOTE The USB connection can only be used for transfer of MIDI data. No audio data can be transferred via USB.



USB is an abbreviation for Universal Serial Bus. It is a serial interface for connecting a computer with peripheral devices, and enables much faster data transfer (12Mbps) compared to conventional serial port connections. Also, it allows “hot swapping” (connecting peripheral devices while the power to the computer is on).

6 MIDI IN/OUT/THRU connectors (page 24)

MIDI IN is for receiving control or performance data from another MIDI device, such as an external sequencer.

MIDI THRU is simply for redirecting any received MIDI data (via MIDI IN) to connected devices, allowing convenient chaining of additional MIDI instruments.

MIDI OUT is for transmitting all control, performance and playback data from the MOTIF to another MIDI device, such as an external sequencer.

7 BREATH Controller Jack (page 28)

Connect an optional Yamaha BC2 Breath Controller here for expressive breath control capability.

8 FOOT SWITCH jacks (page 28)

For connection of optional FC4 or FC5 Footswitches. When connected to the SUSTAIN jack, the Footswitch controls sustain. When connected to ASSIGNABLE, it can control one of various different assignable functions.

9 FOOT CONTROLLER jacks (page 28)

For connection of optional foot controllers (FC7, etc.). Each jack lets you continuously control one of various different assignable functions — such as volume, tone, pitch, or other aspects of the sound.

10 ASSIGNABLE OUT L and R jacks (page 21)

Line level audio signals are output from the MOTIF via these phone jacks (1/4" mono phone plug). These outputs are independent of the main output (at the L/MONO and R jacks below), and can be freely assigned to any of the Parts. This lets you route specific Voices or sounds for processing with a favorite outboard effect unit.

11 OUTPUT L/MONO and R jacks (page 21)

Line level audio signals are output via these phone jacks. For monophonic output, use just the L/MONO jack.

12 PHONES jack (page 21)

For connection to a pair of stereo headphones.

13 A/D INPUT jacks (page 23)

External audio signals can be input via these phone jacks. These are used primarily for recording samples — either with a microphone, making the proper Utility settings (page 250), or from other audio equipment, such as a CD or MD player. With the optional Vocal Harmony Plug-in board (PLG100-VH, page 35), you can also apply special effects and harmonies to the microphone input.

14 GAIN knob

For adjusting the input gain of the audio at the A/D INPUT jacks (above). Depending on the connected device (microphone, CD player, etc.), you may need to adjust this for optimum level.

15 SCSI connectors (page 27)

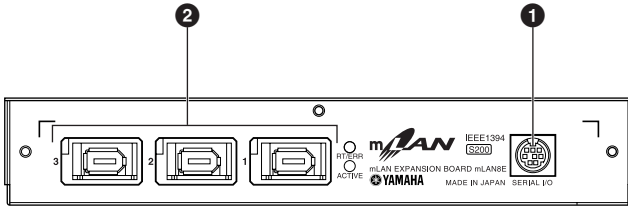
This SCSI-2 50-pin connector (D-sub, half-pitch) can be used to connect to an external SCSI data storage device — allowing you to conveniently save and store large quantities of data.

16 Card slot (pages 64, 262)

Insert a Memory Card here to transfer various data to/from the MOTIF. Read carefully the precautions on using a Memory Card (page 289) before inserting a card.

17 Plug-in board cover (page 35)

Installing an optional Plug-in Board to the MOTIF lets you greatly expand the sonic palette of the instrument. Up to three boards can be installed to the MOTIF's rear panel.

■ When the optional mLAN8E has been installed:**1 SERIAL I/O connector**

For connecting the mLAN8E directly to a personal computer via a serial cable. Use this jack to connect the mLAN8E and the computer when using the mLAN Patchbay and mLAN Mixer in Windows. This is not used to input or output MIDI or audio signals.

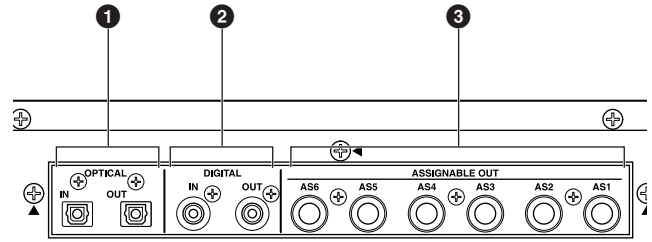
2 mLAN (IEEE1394) connector 1, 2, 3

For connecting mLAN devices or IEEE1394-compatible devices via IEEE1394 standard (6-pin) cables.

**About mLAN**

“mLAN” is a digital network designed for musical applications. It uses and extends the industry standard IEEE 1394 high performance serial bus. For details, refer to the Guide Book of the mLAN8E.

The name “mLAN” and its logo (above) are trademarks.

■ When the optional AIEB2 has been installed:**1 OPTICAL IN, OUT connectors (pages 22, 23)**

Use these connectors to input or output digital signals over optical-fiber cable. You can use the OPTICAL IN to record a digital signal of frequency 48kHz, 44.1kHz, or 32kHz. The OPTICAL OUT connector outputs a digital signal of frequency 44.1kHz.

2 DIGITAL IN, OUT connectors (pages 22, 23)

Use these connectors to input or output digital signals over coaxial (RCA-pin) cable. The digital signal format is CD/DAT (S/P DIF). You can use the DIGITAL IN connector to record a digital signal of frequency 48kHz, 44.1kHz, or 32kHz. The DIGITAL OUT connector outputs a digital signal of frequency 44.1kHz.

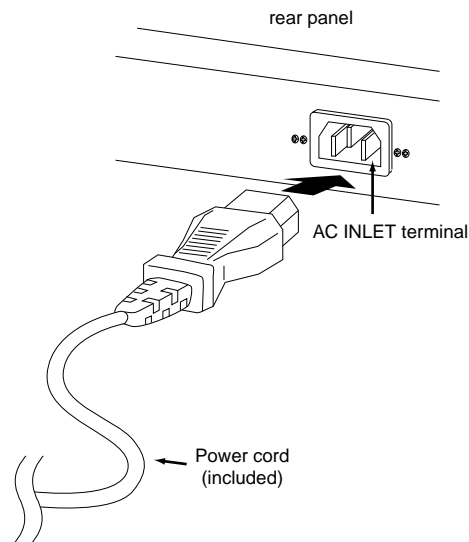
3 ASSIGNABLE OUT jacks (AS1 to AS6) (page 22)

Additional analog output jacks. Each pair (1&2, 3&4, 5&6) operates independently of all other outputs on the MOTIF.

Setting Up

This section explains how to connect your MOTIF to an AC power source, external audio and MIDI devices, and a computer system. Only switch the MOTIF on after you have made all the necessary connections. It is recommended that you read this section before using the MOTIF.

Power Supply



- 1** Make sure the POWER switch on the MOTIF is set to OFF.
- 2** Connect the supplied power cord to the AC INLET terminal on the instrument's rear panel.
- 3** Connect the other end of the power cord to an AC outlet. Make sure your MOTIF meets the voltage requirement for the country or region in which it is being used.

⚠ WARNING

Make sure your MOTIF is rated for the AC voltage supplied in the area in which it is to be used (as listed on the rear panel). Connecting the unit to the wrong AC supply can cause serious damage to the internal circuitry and may even pose a shock hazard!

⚠ WARNING

Use only the AC power cord supplied with the MOTIF. If the supplied cord is lost or damaged and needs to be replaced, contact your Yamaha dealer. The use of an inappropriate replacement can pose a fire and shock hazard!

⚠ WARNING

The type of AC power cord provided with the MOTIF may be different depending on the country in which it is purchased (a third prong may be provided for grounding purposes). Improper connection of the grounding conductor can create the risk of electrical shock. Do NOT modify the plug provided with the MOTIF. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use a plug adapter which defeats the grounding conductor.

Connections

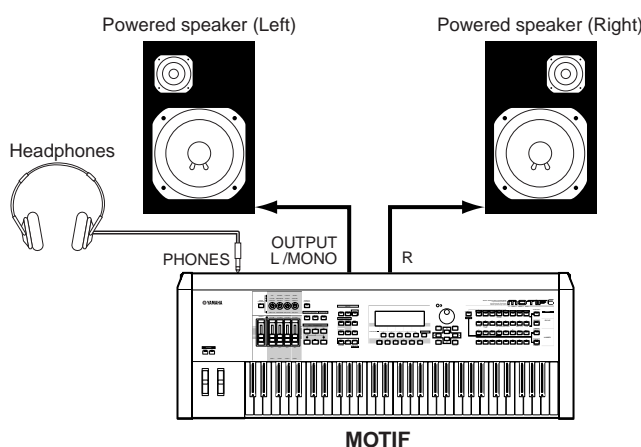
Connecting to External Audio Equipment

Since the MOTIF has no built-in speakers, you'll need an external audio system or a set of stereo headphones to properly monitor it. The following illustrations show various connection examples; use the one most similar to your intended setup.

Analog output

■ Connecting stereo powered speakers

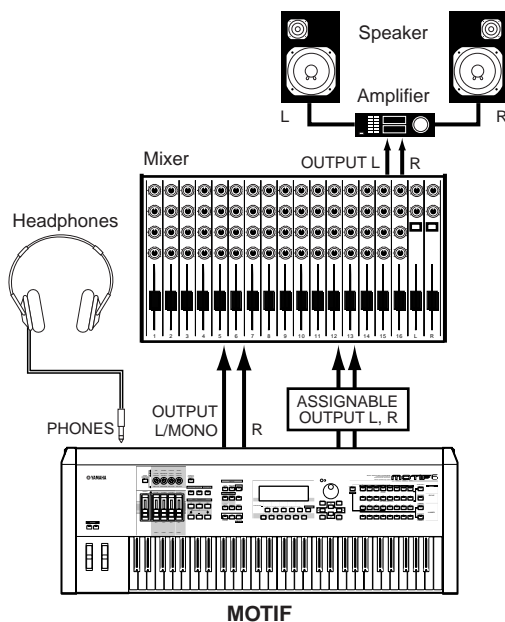
A pair of powered speakers can accurately produce the instrument's rich sounds with their own pan and effect settings. Connect your powered speakers to the OUTPUT L/MONO and R jacks on the rear panel.



NOTE When using just one powered speaker, connect it to the OUTPUT L/MONO jack on the rear panel.

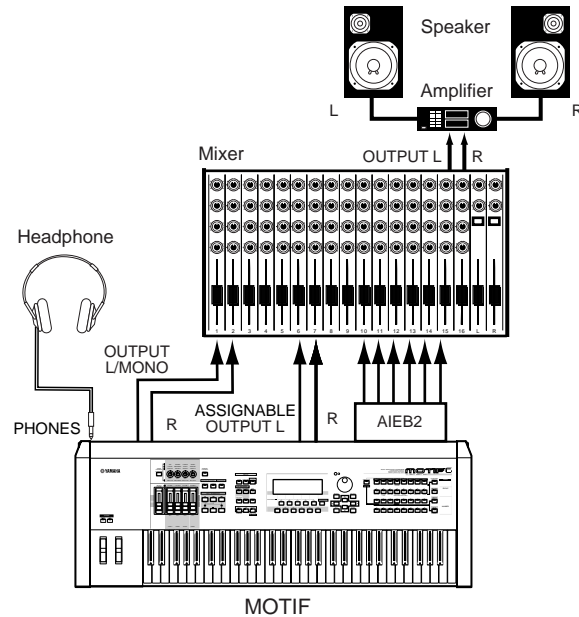
■ Connecting to a mixer

There are extra audio outputs in addition to the OUTPUT (L/MONO and R) jacks. Connect these outputs to a mixer for separately controlling the outputs of up to four Parts in Performance mode (page 164).



■ Connecting to a mixer (with the optional AIEB2)

You can expand the MOTIF's output capabilities with six additional OUTPUT jacks for outputting extra individual parts, by installing the optional I/O board (AIEB2).

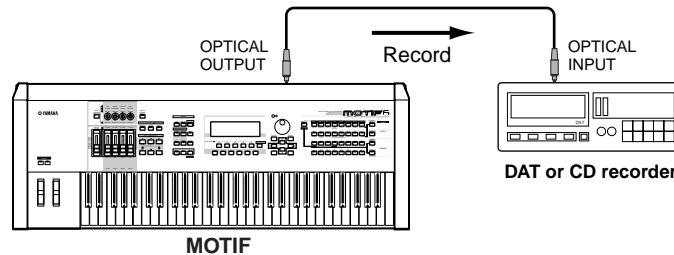


NOTE Connecting a pair of headphones does not affect audio output from the OUTPUT (L/MONO and R) jacks. You can monitor the same sounds via headphones and at the OUTPUT jacks.

Digital output

■ When using the OPTICAL OUTPUT connector:

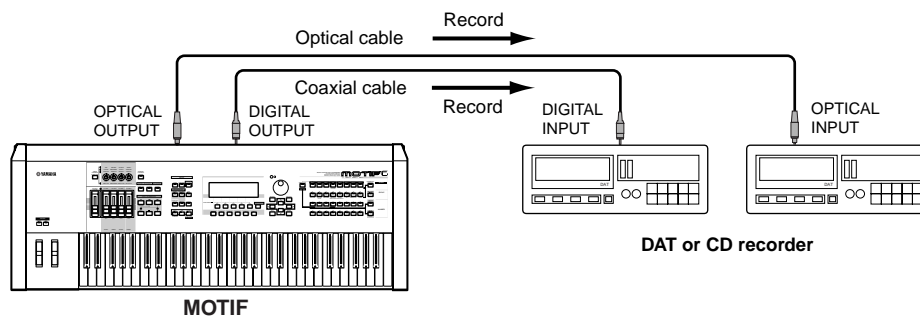
This connector enables direct digital output of MOTIF playback and digital through-put.



■ When the optional AIEB2 I/O board has been installed:

The board enables direct digital output of MOTIF sound also via the coaxial cable.

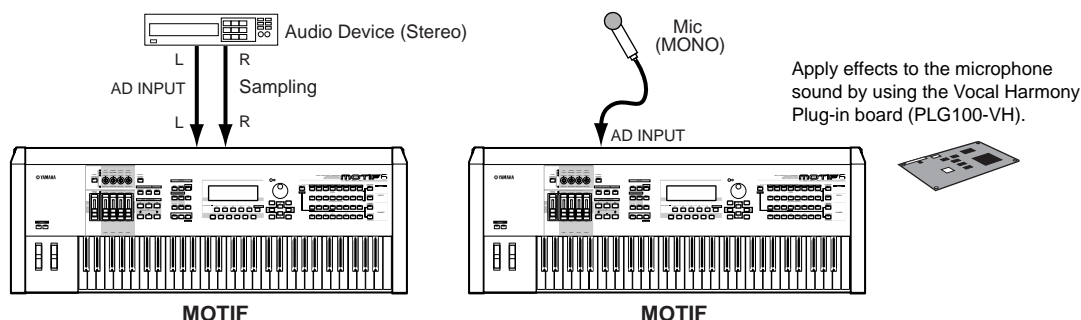
For purposes of compatibility, the AIEB2 board includes two different output types: OPTICAL OUT (optical fiber) and DIGITAL OUT (coaxial cable). Note that both of these outputs always produce identical signals.



A/D input

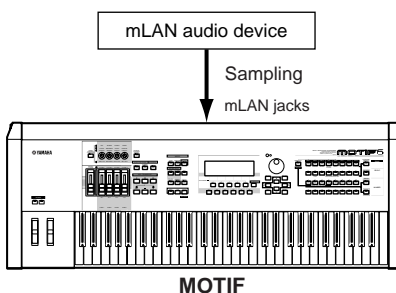
■ Connecting a microphone or other audio equipment (analog input)

You can record or import external sounds or waveform data and use them as instrument sounds (see “Sampling” on page 58). When recording from an external audio source, connect a microphone or the audio source to the A/D INPUT jacks.



NOTE After the above connections are complete, you are ready to set up for recording. When starting a recording, you may need to adjust the input gain of the audio source using the GAIN knob. (page 18).

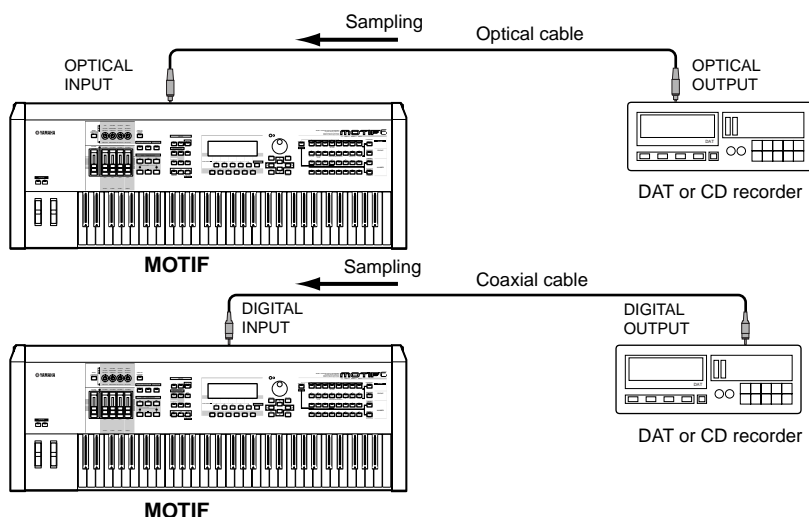
■ Connecting to mLAN-compatible audio equipment



NOTE The sound via either of the mLAN jacks and the A/D INPUT jacks can be input. You can set which jacks are used in the Utility mode (page 252).

Digital input (when the optional AIEB2 has been installed)

By installing the optional AIEB2 I/O expansion board, you can directly record digital audio from digital sources — such as a CD player or DAT deck. For maximum compatibility and flexibility, the AIEB2 board includes two different input types: OPTICAL (optical fiber) and DIGITAL (coaxial cable).

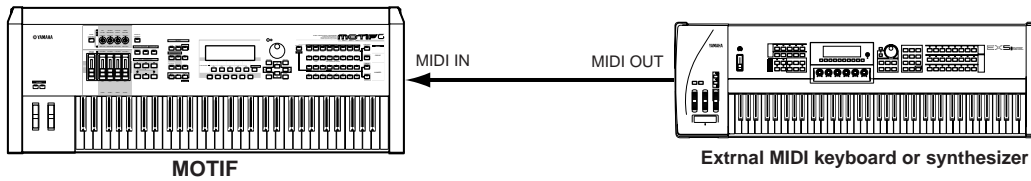


NOTE Either one of the connectors (OPTICAL or DIGITAL) can be used; however, both cannot be used at the same time. Select which connector is used for digital input in the Utility mode. See page 249.

Connecting External MIDI Equipment

Using a standard MIDI cable (available separately), you can connect an external MIDI device, and control it from the MOTIF. Likewise, you can use an external MIDI device (such as a keyboard or sequencer) to control the sounds on the MOTIF. Below are several different MIDI connection examples; use the one most similar to your intended setup.

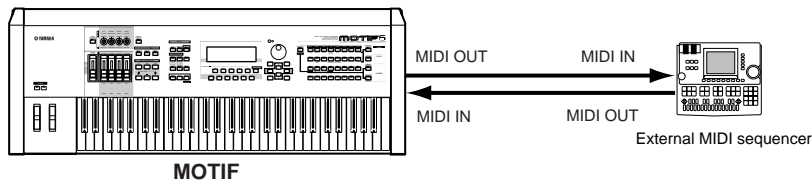
■ Controlling from an external MIDI keyboard



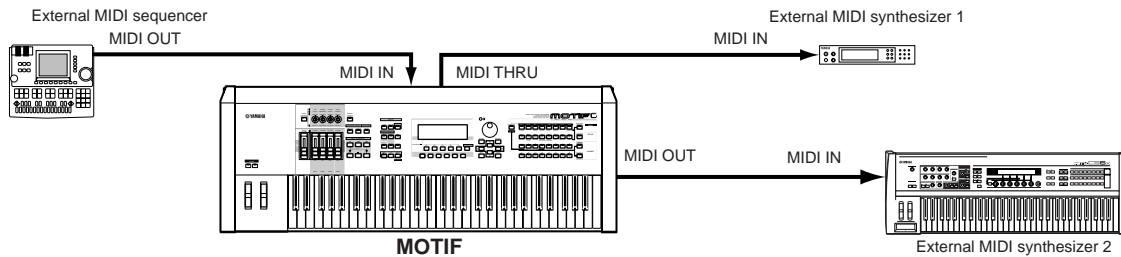
■ Controlling an external MIDI keyboard



■ Recording and playback using an external MIDI sequencer



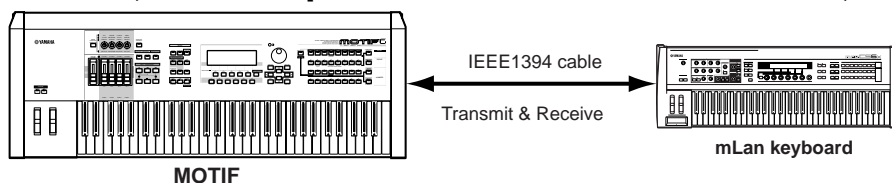
■ Controlling another MIDI device via MIDI THRU



In the above setup, Synthesizer 2 can be played from the MOTIF (via MIDI OUT), while the external sequencer plays Synthesizer 1 (via MIDI THRU).

NOTE The MIDI cable should be no greater than 15 meters in length, and there should be no more than three devices in a MIDI chain (chained in series via each unit's MIDI THRU). To connect more units, use a MIDI Thru Box for parallel connections. You may encounter errors if the MIDI cables are too long or if too many devices are chained together via their MIDI THRU connectors.

■ Using an mLAN interface (when an optional mLAN8E has been installed)

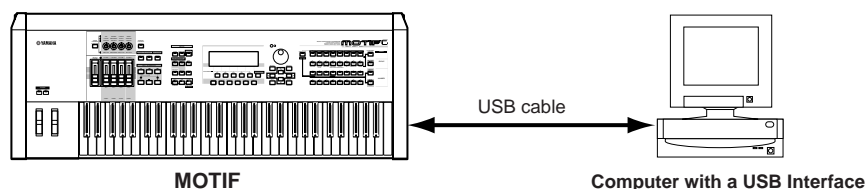


NOTE Any one of these interfaces can be used for MIDI data transmission/reception: the MIDI connectors, the mLAN terminal connector, or the USB connector. However, they cannot be used at the same time. Select which connector is used for MIDI data transfer in the Utility mode. See page 259.

Connecting to a Personal Computer

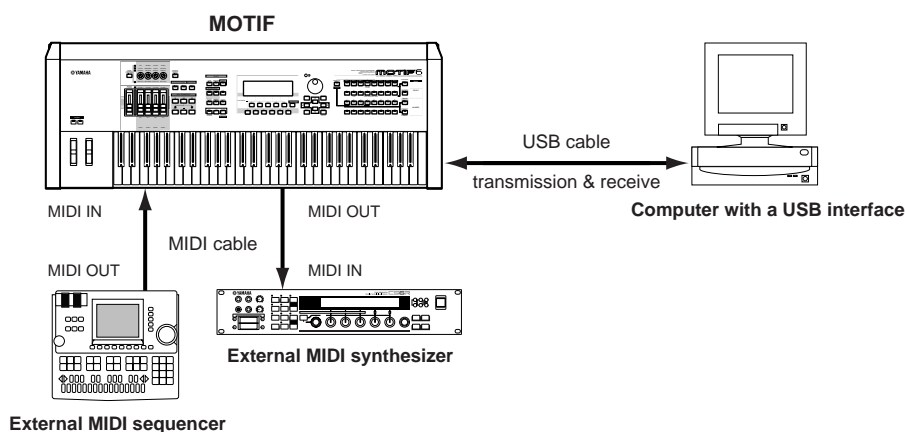
By connecting a computer, you can transfer data between the MOTIF and the computer via MIDI, and use the computer to control, edit and organize data on the MOTIF. For example, you can use the included Voice Editor program to edit the MOTIF's voices. There's also a special File Utility program that lets you use your computer to manage files in the Memory Card inserted in the MOTIF's CARD slot or files in the SCSI device connected to the MOTIF.

■ Using an USB interface



NOTE If you are using the Remote Control function to control operations on a computer sequencer, we recommend making connections with a USB cable.

NOTE The USB connection can only be used for transfer of MIDI data. No audio data can be transferred via USB.



NOTE When you connect your computer to the MOTIF as illustrated above, you will need to select "USB" for MIDI data transmission in the Utility mode. (page 258)

About the USB connector

USB cables have different connectors on each end: the A type and the B type. When using the USB connection, connect the A type to your computer and the B type to the MOTIF.

CAUTION

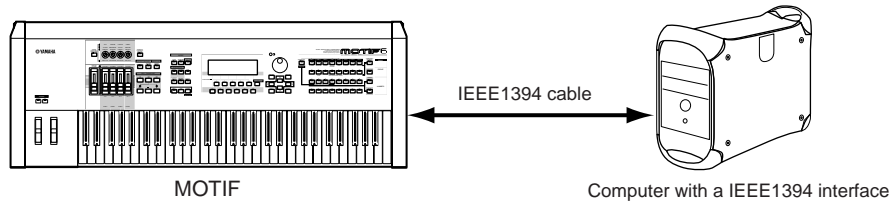
Disconnecting/connecting the USB cable or turning the power off/on may cause the computer operation to hang-up, or may stop the MOTIF from functioning properly. Be careful NOT to disrupt the USB connection or turn the power on/off in the following operating conditions.

- While the MOTIF is recognizing the device or while loading the driver.
- While starting or shutting down the operating system.
- While computer operation is suspended (with power management controls such as sleep or hibernation).
- While a MIDI application is starting.

The computer may also hang up and/or the MOTIF's functions may stop if you do the following:

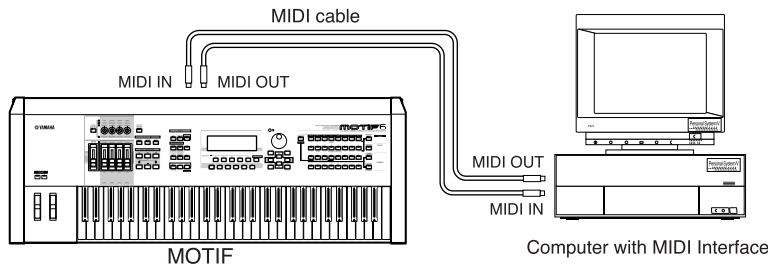
- Turn the power on/off, or connect/disconnect the cable too often.
- Enter the sleep mode while transmitting the MIDI data, and resume operation.
- Disconnect/connect the cable while the MOTIF is on.
- Turn the MOTIF on/off, start the computer, or install driver software while a huge amount of data is being transferred.

■ Using an IEEE1394 interface (when an optional mLAN8E has been installed)

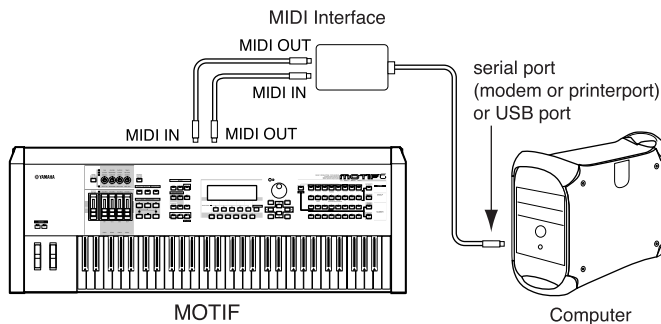


■ Using a MIDI interface

● Using the computer's MIDI interface



● Using an external MIDI interface



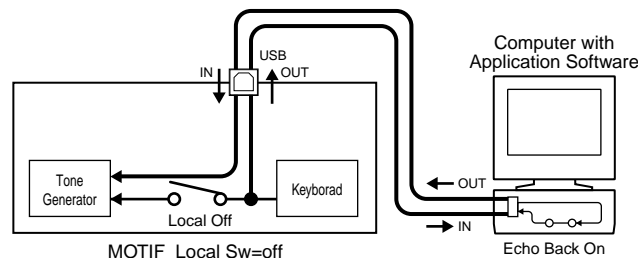
NOTE Please use the appropriate MIDI interface for your computer.

NOTE If you are using a computer that has a USB interface, make sure to connect the computer and the MOTIF by USB. (The data transfer rate is faster than MIDI and you'll have access to multiple MIDI ports.)

Local On/Off - When Connected to a Computer

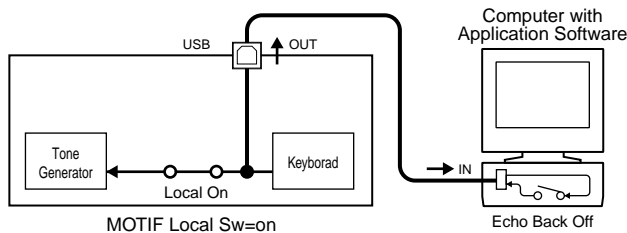
When connecting the MOTIF to a computer, the keyboard performance data is generally sent to the computer, and then returned from the computer to play the tone generator or sound source. If the Local Switch is set to "on," a "double" sound may result, since the tone generator is receiving performance data from both the keyboard directly and the computer. Use the setting suggestions below as a guideline; specific instructions may differ depending on your computer and the software used.

When MIDI "Echo" is enabled on the software/computer, set the MOTIF Local Switch to "off."



NOTE When transmitting or receiving System Exclusive data (such as with the Bulk Dump function), use the setting example below, making sure that MIDI "Echo" on the computer software is set to "off."

When MIDI “Echo” is disabled on the software/computer, set the MOTIF Local Switch to “on.”



NOTE Although not indicated in the illustration above, the MOTIF actually receives and responds to MIDI data from the computer application (sequencer), regardless of the Local Sw setting on the MOTIF.

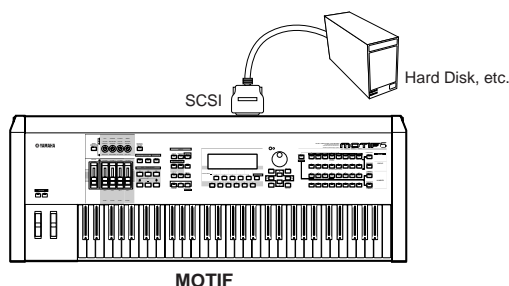
* MIDI “Echo” is a function on sequencers that takes any data received via the MIDI IN and “echoes” it (or sends it as is) through the MIDI OUT. In some software, this function is also called “MIDI Thru.”

NOTE Refer to the owner's manual of your particular software for specific instructions.

Connecting to an External SCSI Device

Reference (page 262)

This SCSI-2 50-pin connector (D-sub, half-pitch) can be used to connect to an external SCSI data storage device — allowing you to conveniently save and store large quantities of data. For details about SCSI and connecting SCSI devices, see page 64.



NOTE The SCSI ID for the MOTIF and for the connected SCSI device are set in the File mode (page 265).

◆ MOTIF-compatible SCSI devices/disks

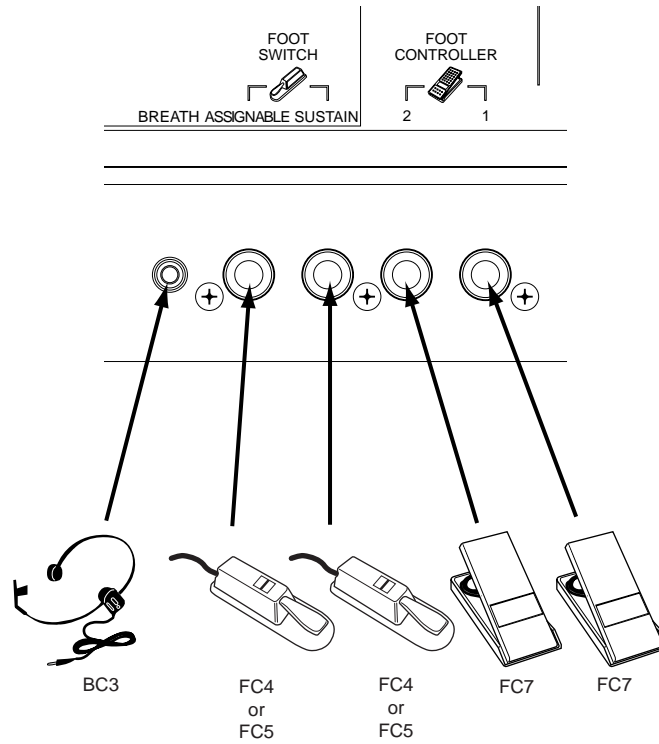
- Only DOS-format disks can be used by the MOTIF for saving data. Disks formatted by the MOTIF are formatted using DOS format.
- Disks formatted to DOS format by a personal computer can be used with the MOTIF. However, for best results, we recommend using disks formatted by the MOTIF.
- When formatted using the MOTIF, disks with a capacity of less than 2GB are formatted using FAT16 format, and larger disks are formatted using FAT32 format.
- MO disks which can be used with the MOTIF include capacities of 128 MB, 230 MB, and 540 MB. MO disks with a capacity of 640 MB and above cannot be used.
- The MOTIF can use removable media of capacities of up to 2 GB. Even if larger drives are connected, the MOTIF can only use a maximum of 2 GB. Furthermore, all removable media are formatted using the FAT16 format, and partitioning is not possible.
- When a 31 GB disk is formatted, four 7.75 GB partitions will be created automatically.

Connecting Various Controllers

Quick Start Guide (page 48)

The MOTIF features several controller jacks on the rear panel — letting you independently control various aspects of the sound and a variety of functions with optional controllers.

Setting Up



Powering Up

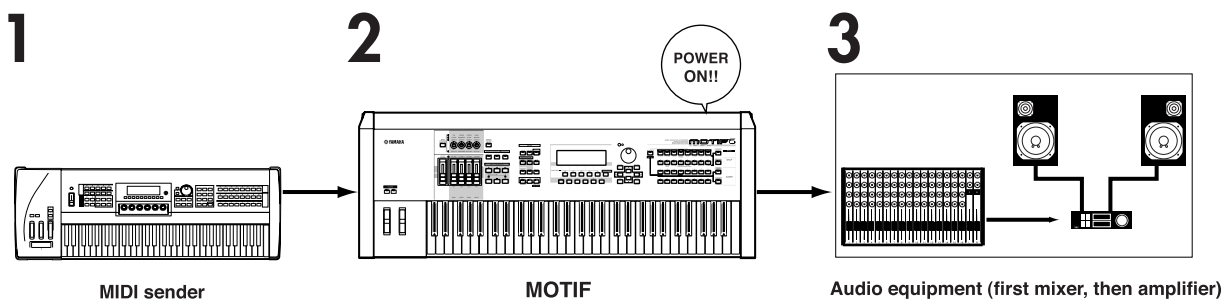
Power-on Procedure

Once you've made all the necessary connections between your MOTIF and any other devices, make sure that all volume settings are turned down all the way to zero. Then turn on the every device in your setup in the order of MIDI masters (senders), MIDI slaves (receivers), then audio equipment (mixers, amplifiers, speakers, etc.). This ensures smooth signal flow from the first device to the last (first MIDI, then audio).

When powering down the setup, first turn down the volume for each audio devices, then switch off each device in the reverse order (first audio devices, then MIDI).

NOTE If the SCSI device is connected to the MOTIF, first turn the SCSI device on and follow the instructions below. When turning the power off in this case, turn the SCSI device off after all other devices.

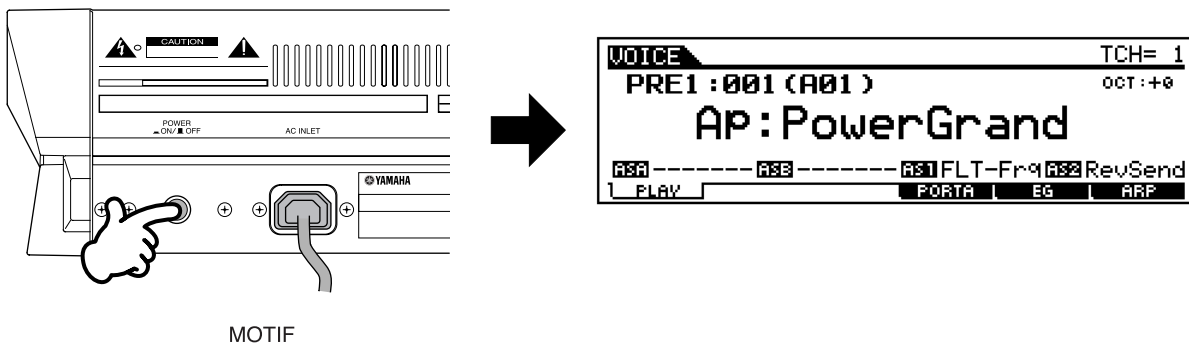
When using the MOTIF as MIDI receiver:



Switching the MOTIF On

NOTE Before you switch your MOTIF on or off, first turn down the volume of any audio equipment connected to it.

- 1 Press the POWER switch.
After a while, the default display appears (as set in the Utility parameter, Power On Mode Display).

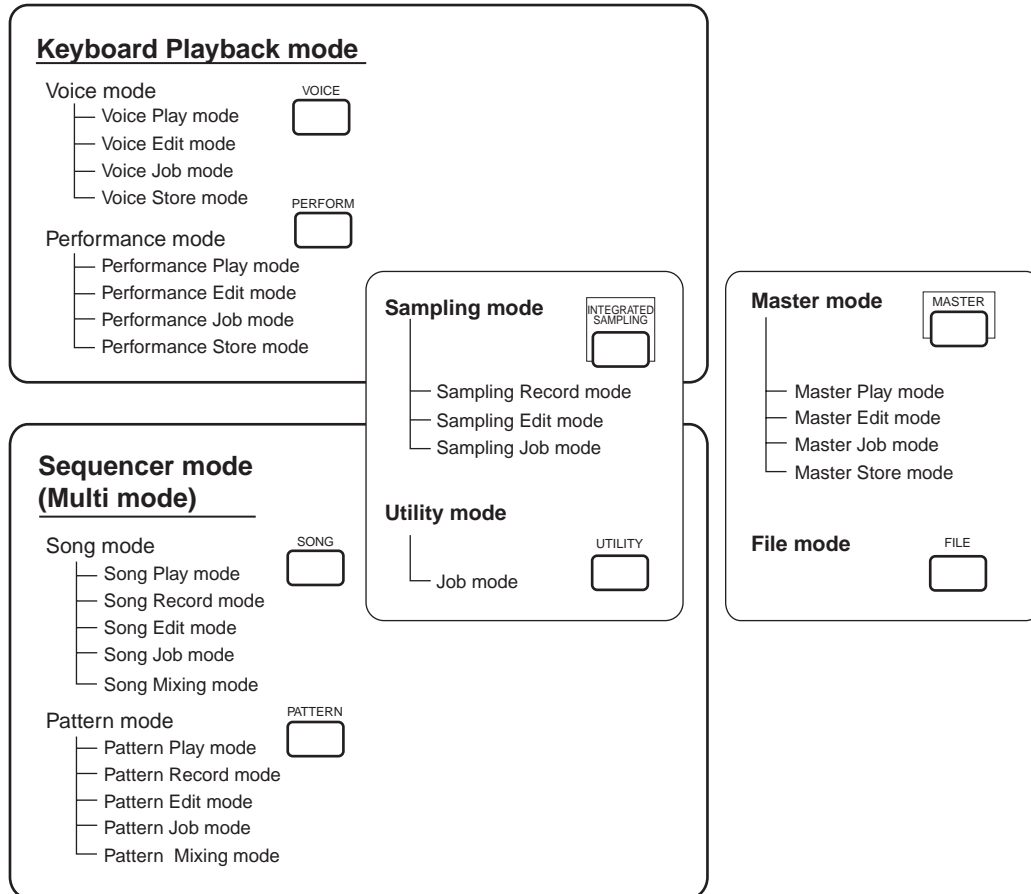


- 2 Raise the sound system volume to a reasonable level.
- 3 Gradually raise the VOLUME control while playing the keyboard to set the desired listening level.

Basic Structure

Mode

The MOTIF is organized with various modes, each covering a different set of operations and functions.



■ Voice mode

Basic Structure (page 42) - Basic Operation (page 67)
Quick Start Guide (page 80) - Reference (page 121)

● Voice Play mode

In this mode, Normal Voices and Drum Voices can be played. By installing an optional Plug-in Board, you can have an even greater selection of Voices.

● Voice Edit mode

In this mode, Normal Voices and Drum Voices can be created and edited.

● Voice Job mode

In this mode, you can copy and initialize Voices, and perform other similar operations (Jobs) on them.

● Voice Store mode

In this mode, you can store edited voices as User Voices in internal memory. You can also save them to Memory Card or an external SCSI device in the File mode (below).

■ Performance mode

Basic Structure (page 42) - Basic Operation (page 67)
Quick Start Guide (page 88) - Reference (page 160)

- **Performance Play mode**
In this mode, Performances can be played — letting you use Voice splits, layers, etc..
- **Performance Edit mode**
In this mode, Performances can be created and edited.
- **Performance Job mode**
In this mode, you can copy and initialize Performances, and perform other similar operations (Jobs) on them.
- **Performance Store mode**
In this mode, you can save edited Performances as User Performances in internal memory. You can also save them to Memory Card or an external SCSI device in the File mode (below).

■ Song mode

Basic Structure (page 51) - Basic Operation (page 67)
Quick Start Guide (page 78) - Reference (page 177)

- **Song Play mode**
In this mode, you can use the sequencer and its various functions (e.g., Track Mute/Solo) in playing back Songs.
- **Song Record mode**
In this mode, you can use the sequencer to record your keyboard performance to a User Song. The MOTIF lets you record up to 16 separate sequence tracks.
- **Song Edit mode**
In this mode, you can edit the MIDI events of each track of the recorded Song.
- **Song Job mode**
In this mode, you can perform a variety of operations on the Song data, such as copying and erasing. These can be done on individual measures, or on entire tracks.
- **Song Mixing mode**
In this mode, you can set the tone generation parameters of each part of the recorded Song.

■ Pattern mode

Basic Structure (page 51) - Basic Operation (page 67)
Quick Start Guide (page 100) - Reference (page 215)

- **Pattern Play mode**
In this Mode, you can use the sequencer to play back Patterns. You can combine various Phrases (by using the Patch function) to create a Pattern.
- **Pattern Record mode**
In this mode, you can use the sequencer to record your keyboard performance to a User Phrase — the basic building block for Patterns. The MOTIF lets you record up to 16 separate sequence tracks.
- **Pattern Edit mode**
In this mode, you can edit the MIDI events of each track of the recorded Pattern Phrase.
- **Pattern Job mode**
In this mode, you can perform a variety of operations on the Pattern data, such as copying and erasing. These can be done on individual measures, or on entire tracks.
- **Pattern Mixing mode**
In this mode, you can set the tone generation parameters of each part of the recorded Pattern.

■ Sampling mode

Basic Structure (page 58) - Basic Operation (page 67)
Quick Start Guide (page 100) - Reference (page 233)

This mode is a sub-mode of the Voice/Performance/Song/Pattern mode. Press the [INTEGRATED SAMPLING] button in each mode to enter the Sampling mode, and press the same button after sampling to go back to the previous mode.

- **Sampling Record mode**
In this mode, you can record sounds into the MOTIF from a microphone or other audio source. These sounds (Samples) can then be played back in real time via keyboard or can be saved to the Song/Pattern track.
Moreover, you can process a recorded Sample (for example, with Chorus or another effect), then re-record it as a new Sample — using the Resampling function.
- **Sampling Edit mode**
In this mode, you can edit recorded Samples — for example, their loop points and other parameters.
- **Sampling Job mode**
In this mode, you can copy and delete Samples, and perform other similar operations (Jobs) on them.

■ Utility mode

Basic Operation (page 67) - Reference (page 249)

This mode is a sub-mode of the Voice/Performance/Song/Pattern mode. Press the [UTILITY] button in each mode to enter the Sampling mode and press the same button after sampling to go back to the previous mode.

In this mode, you can set parameters that apply to the entire system of the MOTIF. These include MIDI settings and global setup parameters.

● Utility Job mode

In this Mode, you can restore the MOTIF's factory settings.

■ Master mode

**Basic Structure (page 56) - Basic Operation (page 68)
Quick Start Guide (page 93) - Reference (page 268)**

This mode gives you a convenient way to register the settings that are often used in the Voice, Performance, Song and Pattern mode to User Master, and to instantly recall them with simple operations.

For the Voice or Performance mode, you can make additional Master Keyboard function settings (e.g., separate Zone settings), and register them to a User Master.

● Master Play mode

In this mode, you can select the desired User Master to play the MOTIF.

● Master Edit mode

In this mode, you can edit the Master settings.

● Master Job mode

In this mode, various jobs for Master settings are provided.

● Master Store mode

In this mode, you can store settings for each mode to the internal memory as a User Master.

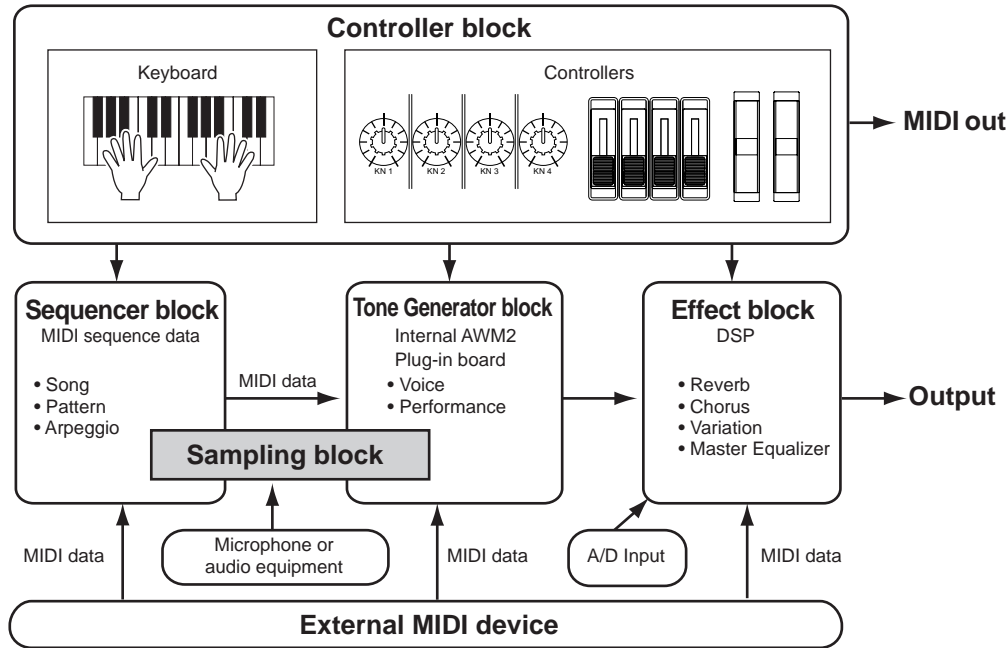
■ File mode

**Basic Structure (page 63) - Basic Operation (page 68)
Quick Start Guide (page 97) - Reference (page 261)**

In this mode, you can save/load all your important original data to/from Memory Card (the MOTIF features a built-in Card slot) or an external SCSI storage device for future recall.

System Overview

This section provides an overview of the MOTIF's wide range of sophisticated and versatile features. The MOTIF is made up of several blocks, as shown here.



Basic Structure

Controller block

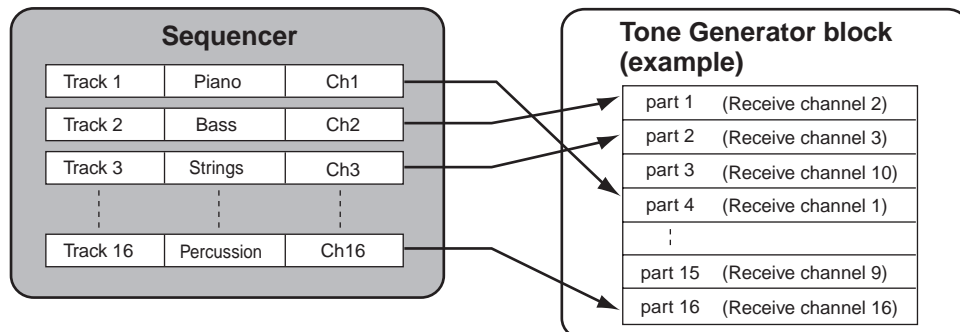
Basic Structure (pages 37, 48)

This block consists of the keyboard, Pitch Bend and Modulation Wheels, Ribbon Controller, Sound Control knobs, and so on. The keyboard itself doesn't generate sounds, but instead sends note, velocity and other information (MIDI data) to the synthesizer's tone generator section when you play notes. The controllers also send changes. Information from the keyboard and controllers can be transmitted to other external MIDI devices through the MIDI OUT connector or the USB connector.

Sequencer block

Basic Structure (page 51) · Quick Start Guide (pages 99 ~ 118) · Reference (pages 177, 215)

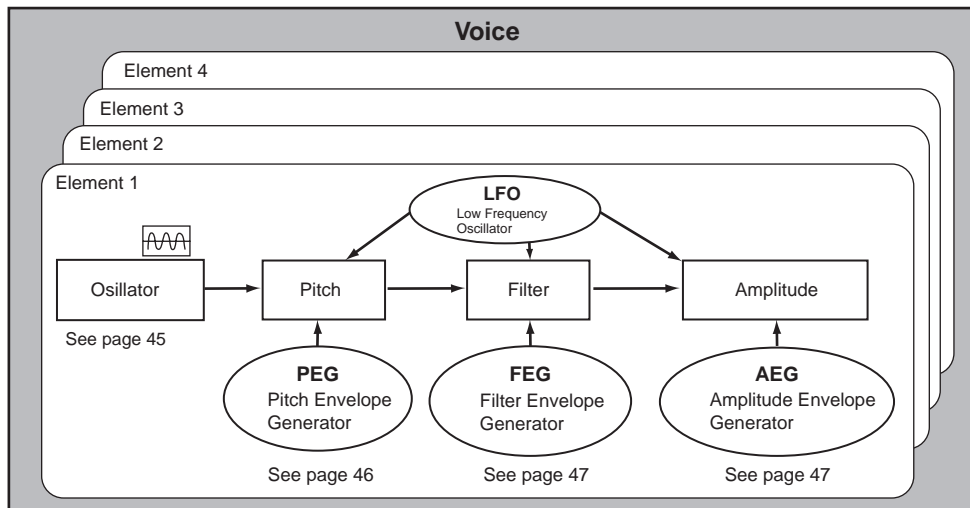
This block lets you create songs and patterns by recording/editing musical performances (MIDI data) recorded from the controller block, and then plays back this data, transmitting it to the tone generator block. The sequencer block can be operated in the Song mode, in the Pattern mode, and in using the Arpeggio feature. When a song or a pattern is played back, the musical data of each sequence track is transmitted to the tone generator block according to the Transmit Channel settings.



NOTE Details about track structure of a Song/Pattern/Arpeggio are described on pages 51 and 52 respectively.

Tone Generator block

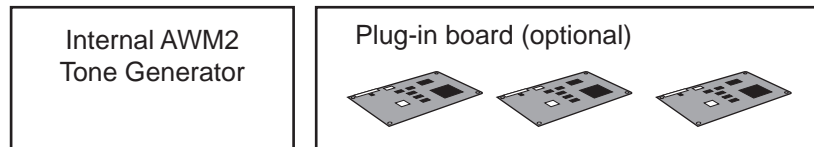
The tone generator block is what actually produces sound in response to the MIDI messages received from the sequencer block, the controller block, and from the MIDI IN connector or the USB connector. The following example illustrates the signal flow within a Voice.



NOTE For details on the Voice structure, see page 40.

Internal AWM2 Tone Generator and optional Plug-in board

The tone generator block in the MOTIF consists of the built-in AWM2 and optional Plug-in units.



● AWM2 (Advanced Wave Memory2)

AWM2 (Advanced Wave Memory 2) is a synthesis system based on sampled waves (sound material), and is used in many Yamaha synthesizers. For extra realism, each AWM2 Voice uses multiple samples of a real instrument's waveform. Furthermore, a wide variety of envelope generator, filter, modulation, and other parameters can be applied to the basic waveform.

You can create your own waves via microphone or from external audio equipment by using the Sampling function. These are then stored in internal RAM and can be used just like the preset waves.

One voice can use up to four waves (elements) in AWM2 tone generator.

NOTE AWM2 is not just limited to general musical instruments (Normal Voices). It can also be used for setting up percussive instruments (Drum Voices). For details on Normal and Drum Voices, see page 45.

● Plug-in board

Plug-in Boards give you an enormous amount of additional sonic flexibility and power. When installed, they work seamlessly and transparently within the system of the MOTIF — meaning that you can use their sounds and functions just as if they were built right into the MOTIF at the factory.

The boards that are available for and can be installed to the MOTIF are described below.

Up to three Plug-in boards can be installed to the MOTIF. These boards are not simply a source of more Voices; they are also tone generators in their own right and extend the system-level specifications such as maximum polyphony. In addition, they allow you to use synthesis systems besides AWM2. You can play Plug-in Voices just like ordinary internal Voices and use them as Parts in a Performance (page 42).

The MOTIF is compatible with the Modular Synthesis Plug-in System (see next page). There are three types of Modular Synthesis Plug-in System-compatible Plug-in Boards: Single Part, Multi-Part and Effect Plug-in Board. Using these, you can build your own system based on the sounds you require.

Plug-in board line-up

● Single Part Plug-in Boards

Single Part Plug-in Boards let you add a completely different synthesizer or tone generator and play its voices by using a single part of the MOTIF.

- **Analog Physical Modeling Plug-in Board (PLG150-AN)**

Using Analog Physical Modeling (AN) synthesis, the very latest digital technology is used to accurately reproduce the sound of analog synthesizers. With this board installed, you have real-time control over the playback of vintage synthesizer sounds as well as the very latest sounds heard in today's club-oriented music.

- **Piano Plug-in Board (PLG150-PF)**

A massive waveform memory is dedicated to the reproduction of piano sounds. This board offers 136 stereo sounds, including a number of acoustic and electric pianos, and up to 64-note polyphony. You can even install two of these boards to double the polyphony to 128 notes.

- **Advanced DX/TX Plug-in Board (PLG150-DX)**

The sounds of the DX7 are available on this Plug-in Board. Unlike PCM-based tone generators, this board uses the powerful FM Synthesis system — the same as found on DX-series synthesizers — for extraordinarily versatile and dynamic sound shaping potential. Sounds are compatible with those of the DX7, and the board can even receive DX7 data via MIDI bulk dump.

- **Virtual Acoustic Plug-in Board (PLG150-VL)**

With Virtual Acoustic (VA) synthesis, the sounds of real instruments are modeled (simulated) in real time, giving a degree of realism that cannot be achieved using conventional PCM-based synthesis techniques. When playing these sounds using an optional MIDI Wind Controller (WX5), you can even capture some of the physical feel of woodwind instruments.

● Effect Plug-in Board

- **Vocal Harmony Plug-in Board (PLG100-VH)**

With this board installed, you can add harmonies to selected parts using four types of effects.

Chorus parts for vocals can be created automatically from chords that have been prepared and stored as MIDI data. You can also use the MOTIF like a vocoder by connecting and using a microphone while playing the keyboard.

● Multi-Part Plug-in Board

Multi-Part Plug-in Boards let you expand the voice polyphony of the MOTIF by giving you a full 16 independent instrumental parts. By using this type of board to play back sequencer tracks, you can reserve the maximum polyphony of the MOTIF for your keyboard performance.

- **XG Plug-in Board (PLG100-XG)**

This Plug-in Board is a 16-part XG sound generator. You can play back XG/GM song files using the rich variety of sounds and effects on this board.

NOTE Additional Plug-in Boards will be available in the future.

MODULAR SYNTHESIS PLUG-IN SYSTEM

About MODULAR SYNTHESIS PLUG-IN SYSTEM

The Yamaha Modular Synthesis Plug-in System offers powerful expansion and upgrade capabilities for Modular Synthesis-Plug-in-compatible synthesizers, tone generators and sound cards. This enables you to easily and effectively take advantage of the latest and most sophisticated synthesizer and effects technology, allowing you to keep pace with the rapid and multi-faceted advances in modern music production.

Maximum Polyphony

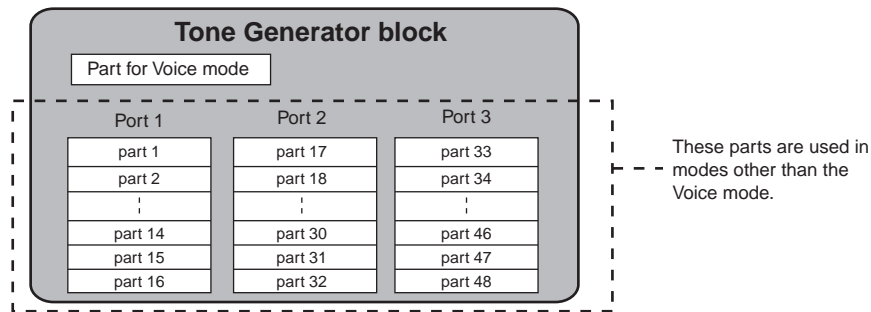
The maximum sonic polyphony is 62 for AWM2, plus the polyphony of the Plug-in Board (if installed). The actual note polyphony will vary depending on the type of tone generator unit used, the number of Elements in the Voice, and the note polyphony of the Plug-in Board.

In the case of AWM2 Voices, the polyphony figure of 63 is divided by the number of Elements in the Voice.

Part structure of the Tone Generator block

The MOTIF plays its sounds (with the Tone Generator block) in response to MIDI data, received from the Controller block or Sequencer block.

MIDI data is assigned to one of sixteen channels, and the MOTIF is capable of simultaneously playing sixteen separate parts, via the sixteen MIDI channels. However, we can overcome the sixteen-channel limit by using separate MIDI “ports,” each supporting sixteen channels. The multiple sound sources of the MOTIF (internal tone generator and Plug-in Boards) take advantage of the three MIDI ports included on the instrument.



As shown in the above illustration, up to 48 parts can be used in the modes (excepting the Voice mode). However, the number of parts that are actually used is a maximum of 34 in the Song and Pattern modes, as we’ll see later in some examples.

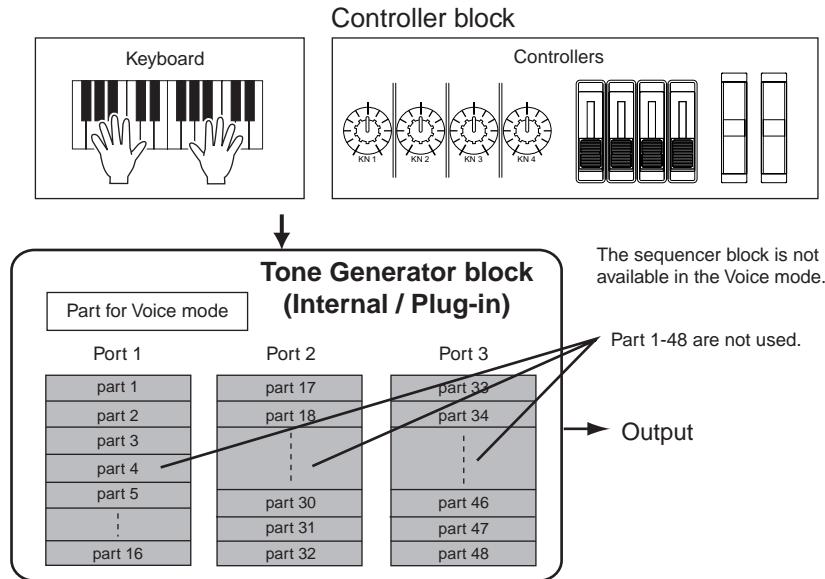
NOTE See page 30 for details about the modes.

NOTE The USB cable supports up to eight separate MIDI ports. The MOTIF’s Tone Generator block supports three separate ports as illustrated above, and the MOTIF’s MIDI Thru function supports eight separate MIDI ports.

NOTE The MIDI cable and IEEE cable (when the mLAN8E has been installed) cannot handle MIDI port data.

Relationship between the Part structure of the Tone Generator block and the Controller/Sequencer block for each mode

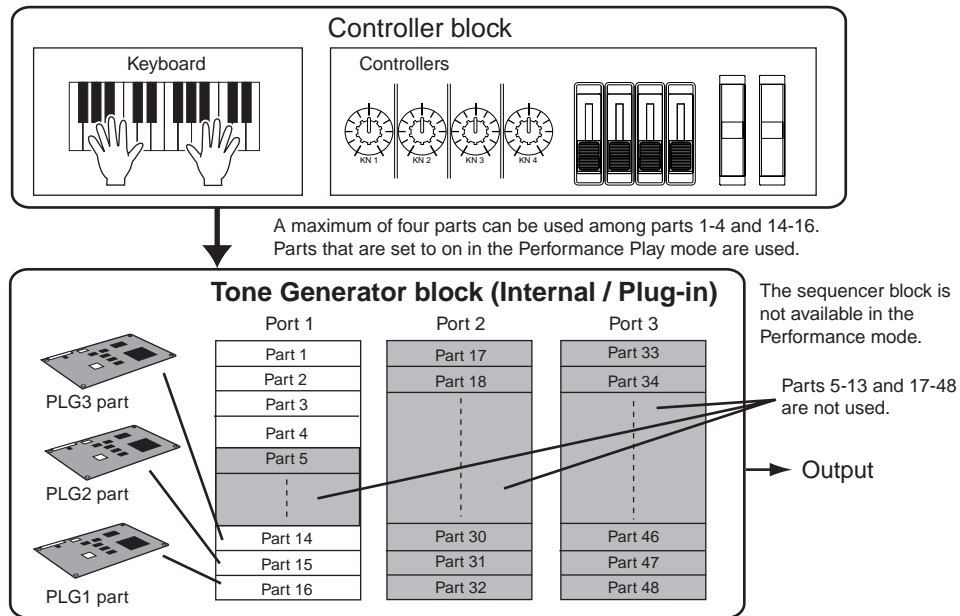
● Voice mode



NOTE In the Voice mode, the MIDI port number is 1.

NOTE The Multi-Part Plug-in Board cannot be used in the Voice mode. However, other Plug-in Boards can be used.

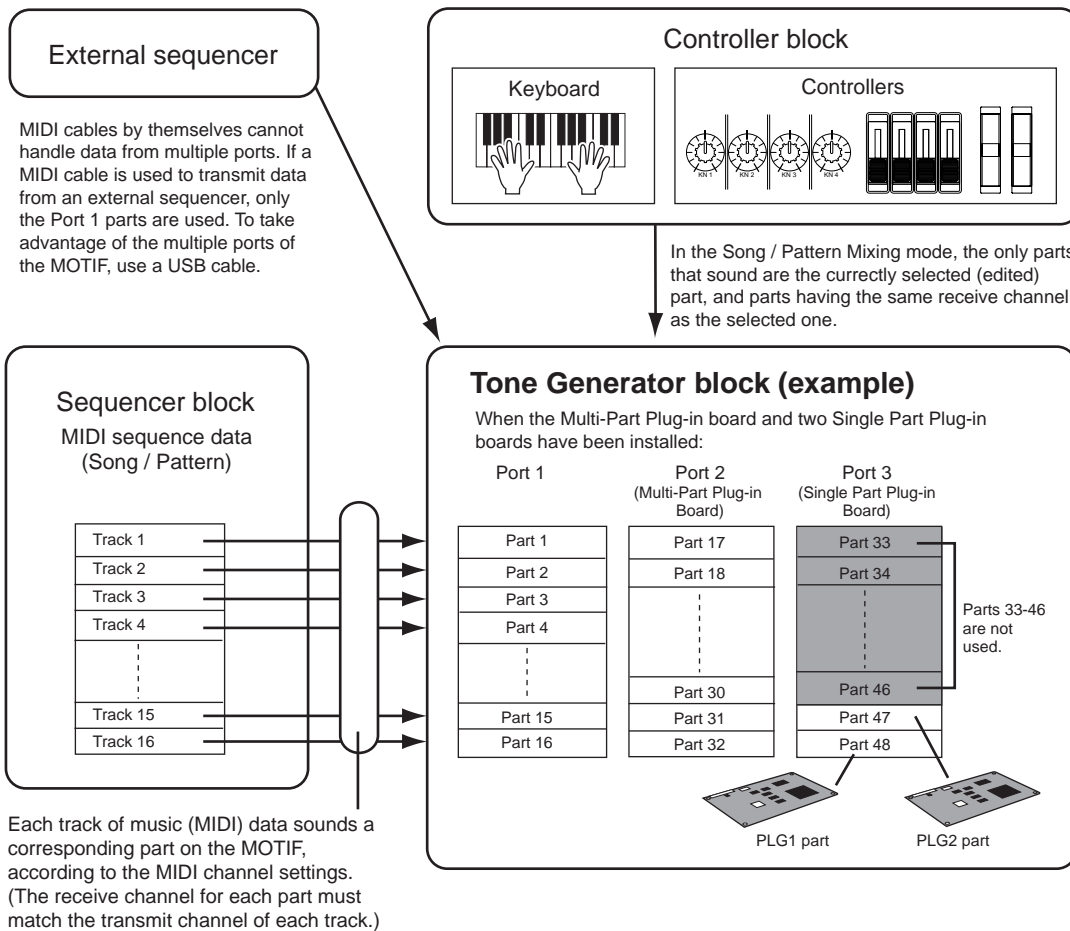
● Performance mode



NOTE In the Performance mode, the MIDI port number is 1.

NOTE The Multi-Part Plug-in Board cannot be used in the Performance mode. However, other Plug-in Boards can be used.

● Song/Pattern mode



Effect block

This block of the MOTIF applies effects to the output of the tone generator, processing and enhancing the sound using sophisticated DSP (digital signal processing) technology.

Effect structure

The MOTIF's effect processing features the following effect units.

■ System Effects (Reverb, Chorus, Variation)

System Effects are applied to the overall sound, whether it be a voice, an entire performance setup, a song, etc. With System effects, the sound of each part is sent to the effect according to the effect Send Level for each part. The processed sound (referred to as “wet”) is sent back to the mixer, according to the Return Level, and output — after being mixed with the unprocessed “dry” sound. This arrangement lets you prepare an optimum balance of the effect sound and the original sound of the parts.

- **Reverb**

The Reverb effects add a warm ambience to the sound, simulating the complex reflections of actual performance spaces, such as a concert hall or a small club. A total of 12 different Reverb types are available.

- **Chorus**

The Chorus effects use modulation to create a rich ensemble sound — as if one part were being played by several instruments simultaneously. A total of 25 different Chorus types are available.

- **Variation**

The Variation effects provide a wide variety of sound transformations and enhancements. A total of 25 different Variation types are available. Variation is not available in the Voice mode.

■ Insertion Effects (1, 2)

Insertion effects can be applied individually to each part.

Insertion effects are mainly used to directly process a single part. The depth of the effect is adjusted by setting the dry/wet balance. Since an Insertion effect can only be applied to one particular part, it should be used for sounds you want to drastically change. You can also set the balance so that only the effect sound is heard, by setting Wet to 100%. The MOTIF features two Insertion effect systems — one with a total of 104 internal effect types and the other with 25.

■ Plug-in Insertion Effects

This is a special effect system, only available when an effect-type Plug-in Board is installed. Plug-in Board effects are not available in the Voice mode.

■ Master Equalizer

Usually an equalizer is used to correct the sound output from amps or speakers to match the special character of the room. The sound is divided into several frequency bands, then by raising or lowering the level for each band, the correction is made.

Adjusting the sound you play according to the genre—classical music being more refined, pops music more crisp, and rock music more dynamic—can also serve to draw out the special characteristics of the music and make your performance more enjoyable.

The MOTIF possesses a high grade five-band digital equalizer function.

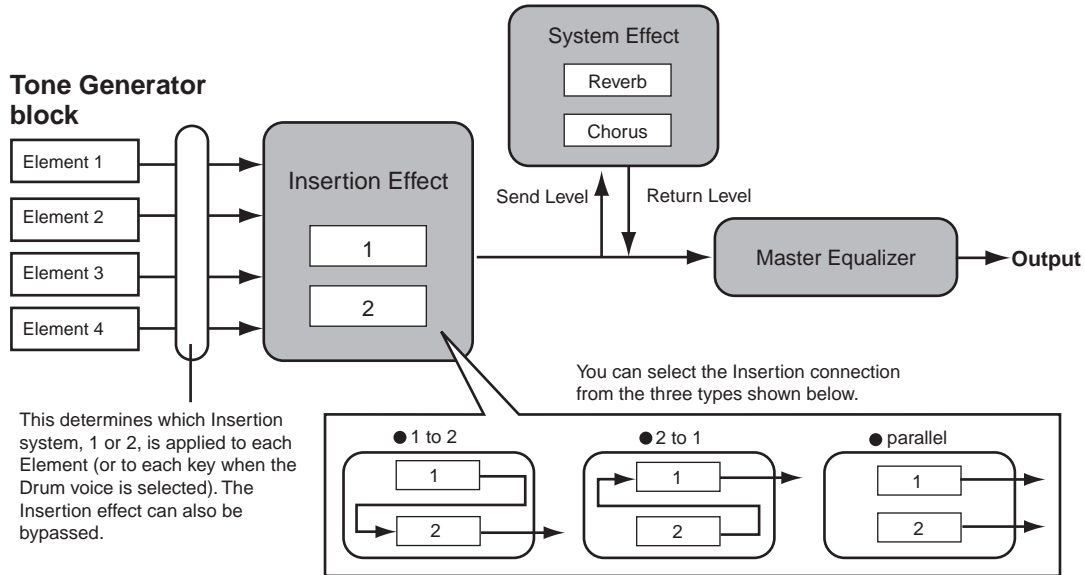
The four knobs can be used to adjust the gain of the four bands (among five).

Effect connection

● In the Voice mode:

Reference (page 137)

You can select the Insertion connection among three types.

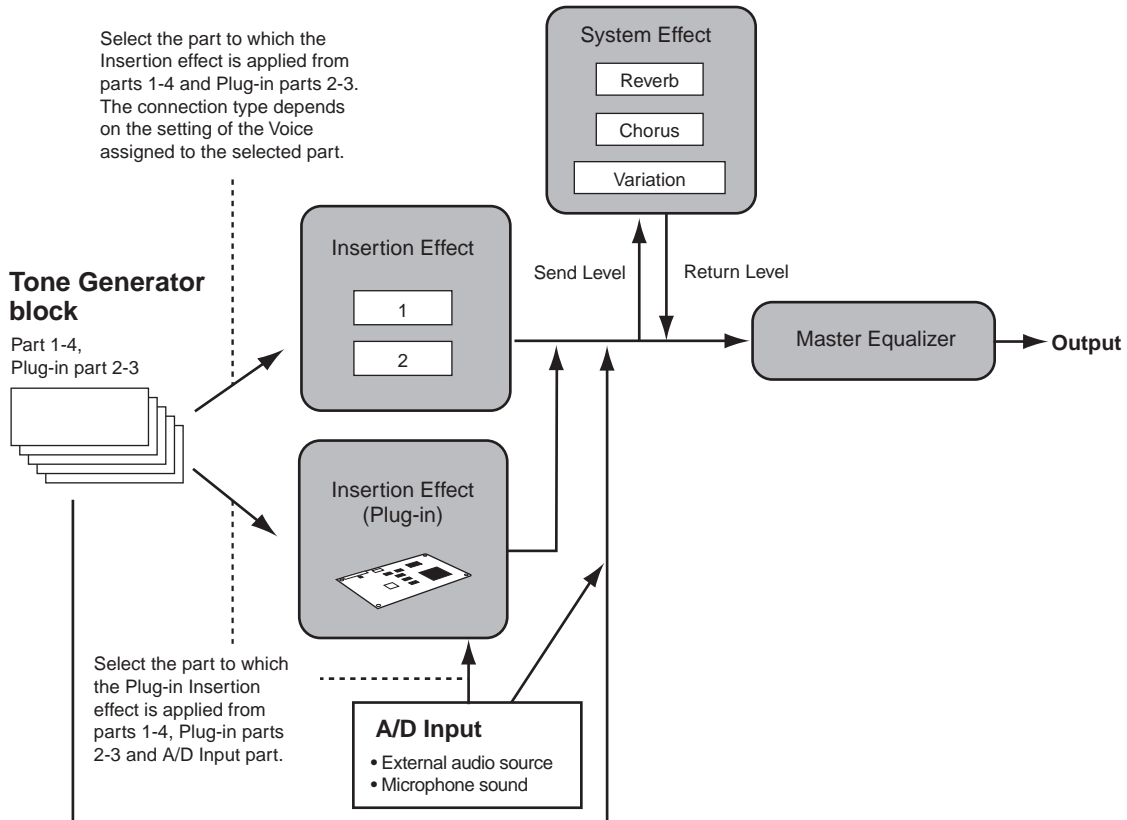


NOTE The parallel connection is not available for Plug-in voices.

● In the Performance mode:

Reference (page 169)

The diagram below indicates the connection when the Vocal Harmony Plug-in Board (PLG100-VH) is installed to slot 1.

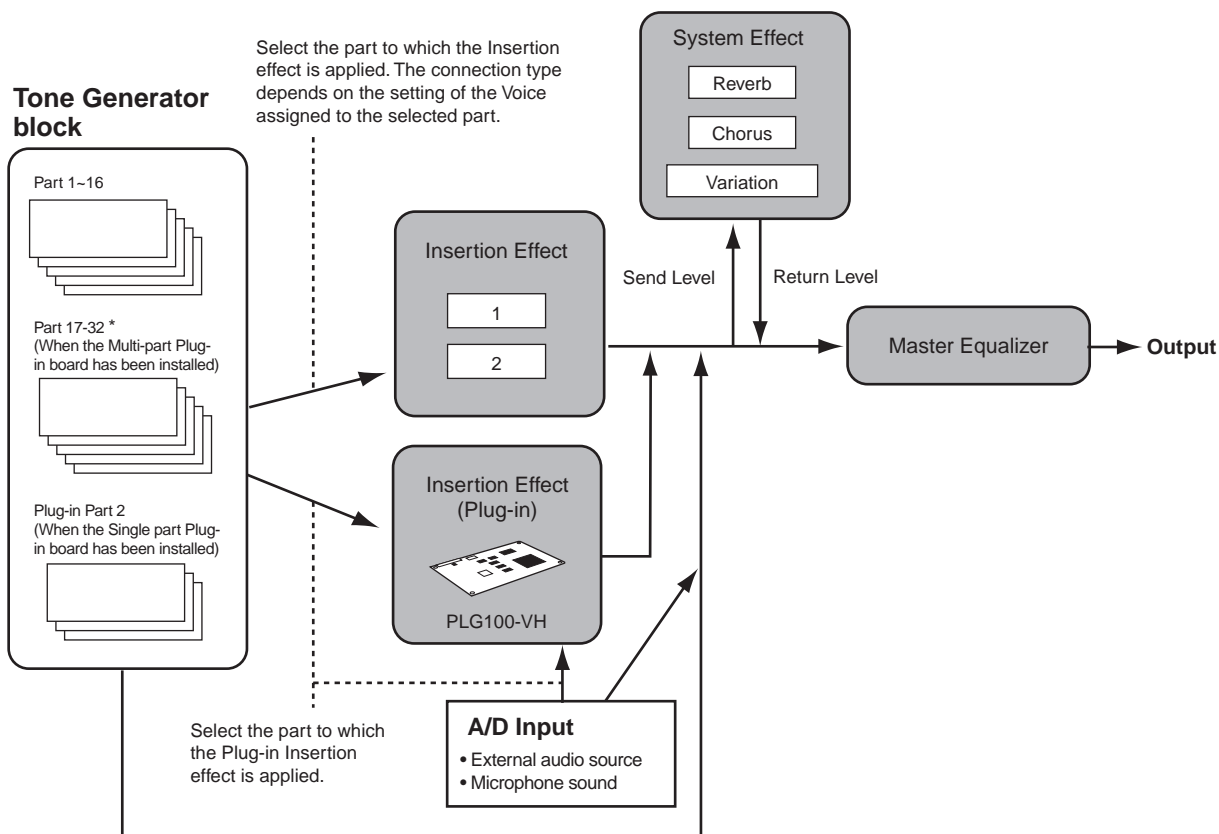


NOTE The Vocal Harmony Plug-in Board (PLG100-VH) can be installed only to slot 1. It cannot be installed to slot 2 or 3.

● In the Song/Pattern mode:

Reference (page 210)

The diagram below indicates the connection when the Vocal Harmony Plug-in Board (PLG100-VH) is installed to slot 1 and the Multi part Plug-in Board (PLG-100XG) is installed to slot 3.



* Please note that the Insertion Effect, Insertion Effect (Plug-in), and the System Effect cannot be applied to parts 17 ~ 32 (using the Multi-part Plug-in board). The signal from parts 17 ~ 32 is directly sent to the Master Equalizer.

NOTE The Vocal Harmony Plug-in Board (PLG100-VH) can be installed only to slot 1. It cannot be installed to slot 2 or 3.

NOTE The Multi part Plug-in Board (PLG100-XG) can be installed only to slot 3. It cannot be installed to slot 1 or 2.

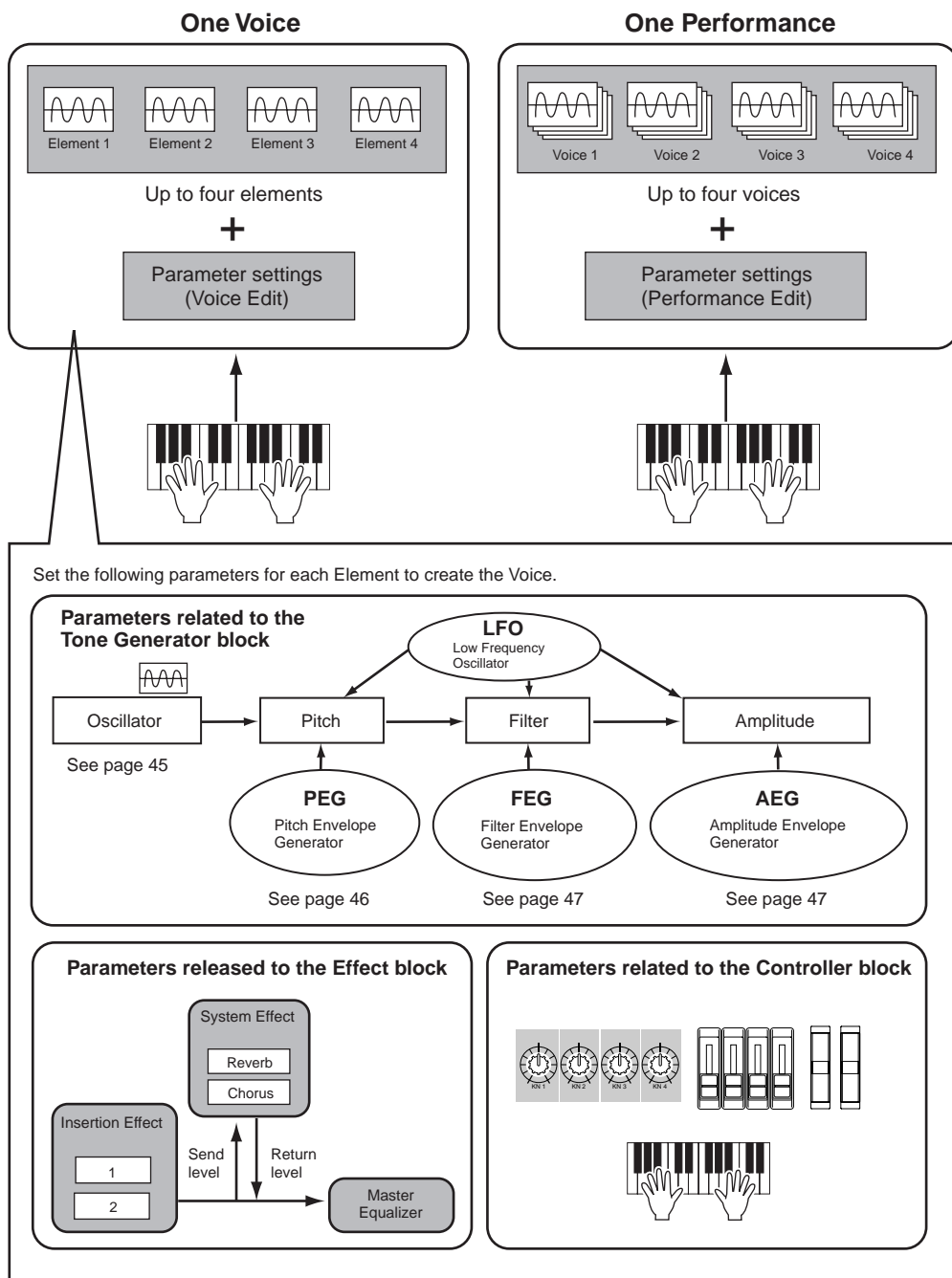
Main functions

Voices and Performances

Quick Start Guide (pages 80, 88) · Reference (pages 121, 160)

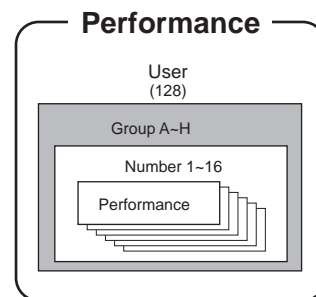
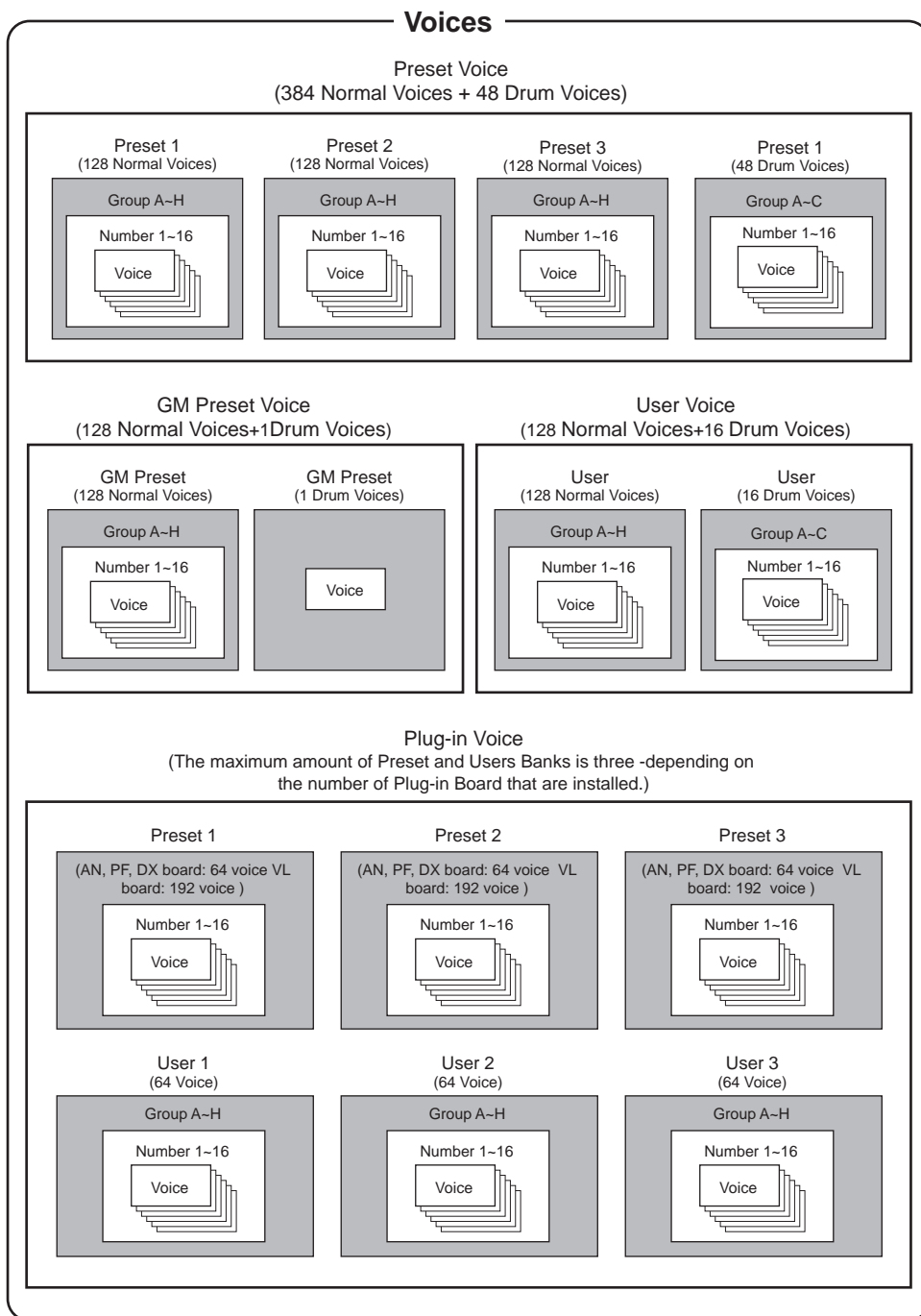
A Voice is the main sound of the MOTIF, made up of a variety of parameter settings. Each Voice can consist of up to four separate Elements, each of which is a high-quality wave, or basic sound.

A Performance, on the other hand, is a program in which multiple Voices (parts) are combined — in a layer, or in other configurations. Each Performance can contain up to four different Parts.



In the Voice Play mode, you can select and play any of these Voices. In the Performance Play mode, you can select and play any of these Performances.

On the previous page, the illustration shows the structure of one Voice/Performance. The illustration below shows the overall memory structure of all Voices and Performances. Taken together, these illustrations can help you better understand the structure of the MOTIF's Voices and Performances. These two illustrations help you to understand the structure of Voice/Performance.

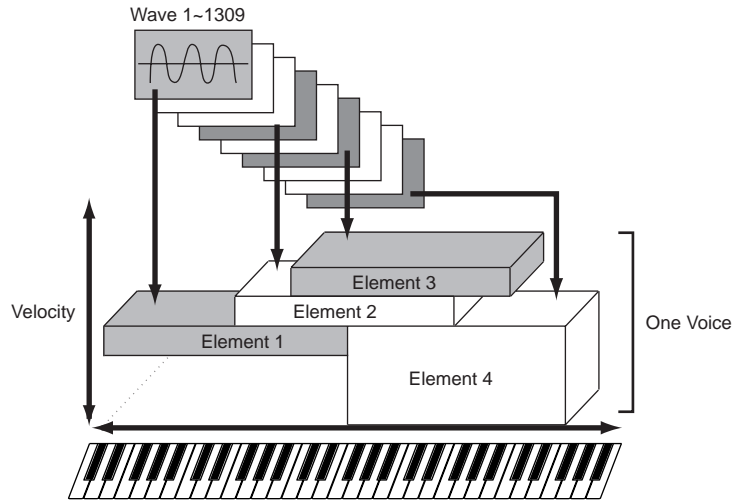


For instructions on selecting Voices / Performances, see pages 124 and 162.

■ Indicates the separate "Banks" of Voices / Performances.

Waves and Elements

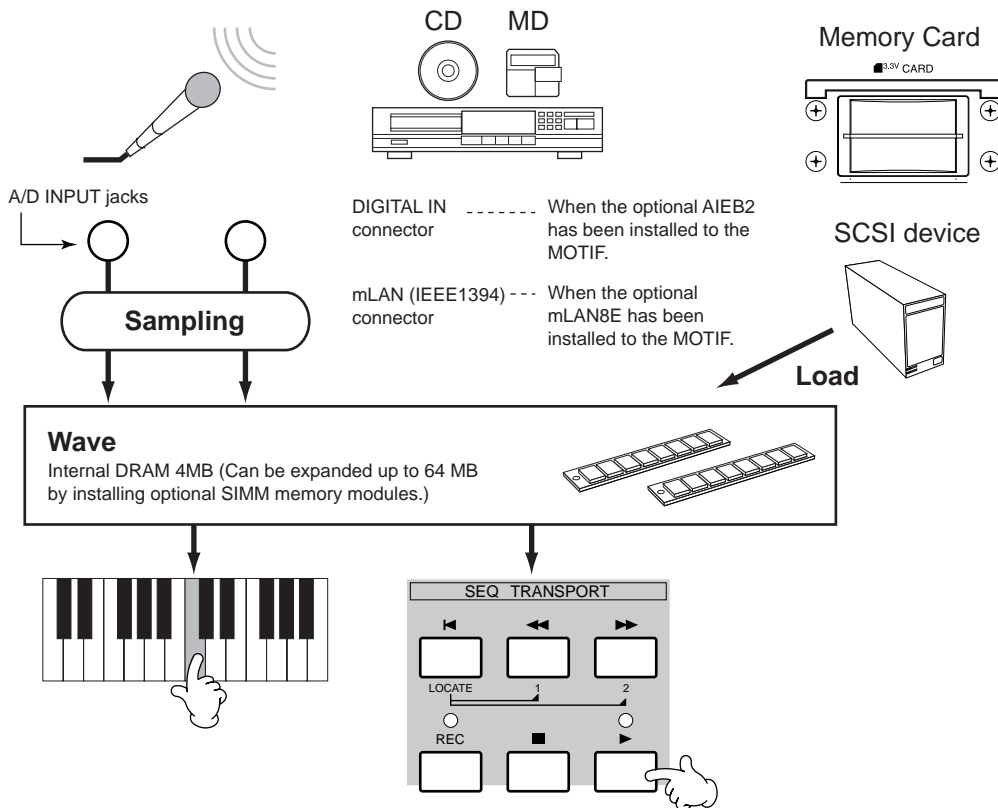
Waves are the waveforms that make up the Elements, which in turn make up a Voice. A total of 1309 high-quality preset Waves are available. As shown in the following illustration, when creating a Voice, you can select the Wave to be used as an Element and then set its level, pitch, tone and other parameters.



User Waves — Samples

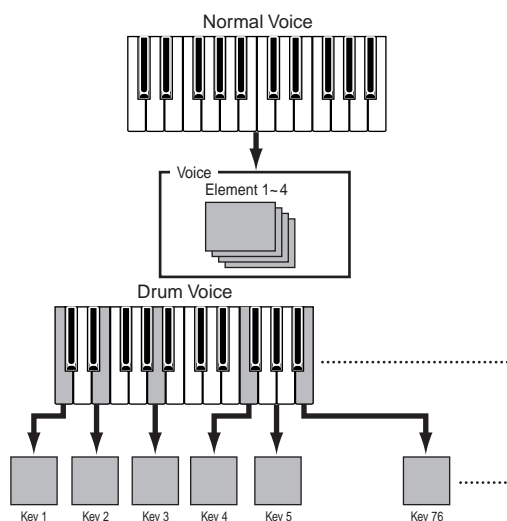
One very powerful feature of the MOTIF is its ability to import external audio samples (such as computer WAV/AIFF files), and record audio as well — and then use those samples as instrument sounds for playback. You can record Waves through the microphone or line level jacks, and you can load Waves saved on Memory Card or an external SCSI device.

The Waves can then be processed and assigned to notes on the keyboard. You can play them via the keyboard or you can assign them as Parts of a Song/Pattern.



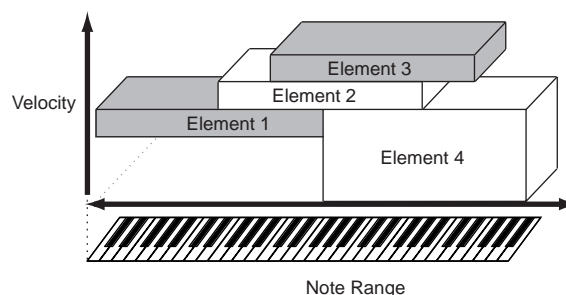
Normal Voice and Drum Voice

Internally, there are two Voice Types: Normal Voices and Drum Voices. Normal Voices are mainly pitched musical instrument-type sounds that can be played over the range of the keyboard. Drum Voices are mainly percussion/drum sounds that are assigned to individual notes on the keyboard. A collection of assigned percussion/drum wave or Normal Voice is known as a Drum Kit.



For example, you could set one Element to sound in an upper range of the keyboard, and another Element to sound in a lower range. Thus, even within the same Voice, you can have two different sounds for different areas of the keyboard or you can make the two Element ranges overlap so that their sounds are layered over a set range.

Furthermore, you can set each Element to respond to different velocity ranges so that one Element sounds for lower note velocities, whereas another Element sounds for higher note velocities.



GM voice

GM is a worldwide standard for Voice organization and MIDI functions of synthesizers and tone generators. It was designed primarily to ensure that any song data created with a specific GM device would sound virtually the same on any other GM device — no matter the manufacturer or the model. The GM Voice bank on the MOTIF is designed to appropriately play back GM song data. However, keep in mind that the sound may not be exactly the same as played by the original tone generator.

Voice structure

One voice consists of Oscillator, Pitch, Filter, Amplitude, LFO and various parameters as shown on page 42. You can create the basic voice character by setting these four parameters.

■ Oscillator

Reference (page 137)

This unit outputs the wave of each Element. You can set the note range for each Element (the range of notes on the keyboard over which the Element will sound) as well as the velocity response (the range of note velocities within which the Element will sound).

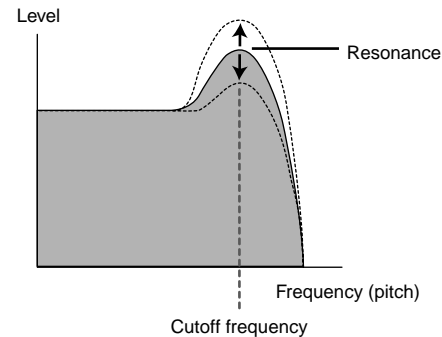
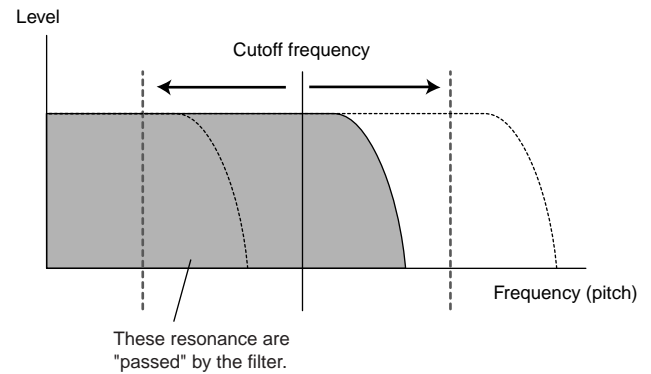
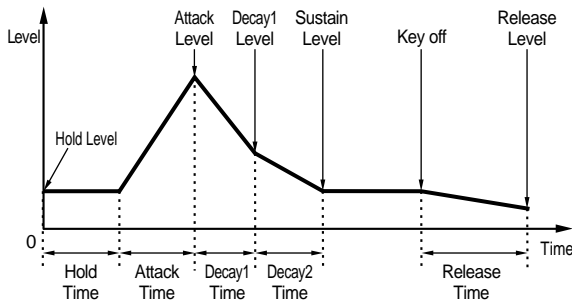
■ Pitch

Reference (page 138)

This unit controls the pitch of each Element output from OSC. You can detune Elements, apply Pitch Scaling and so on. Also, by setting the PEG (Pitch Envelope Generator), you can control how the pitch changes over time.

● PEG (Pitch Envelope Generator)

Using the PEG, you can control the transition in pitch from the moment a note is pressed on the keyboard to the point at which it is released. As illustrated at right, the Pitch Envelope consists of five Time (transition speed) parameters and five Level (pitch) parameters. This is useful for creating automatic changes in pitch. Furthermore, different PEG parameters can be set for each Element.



● About the main Filter types

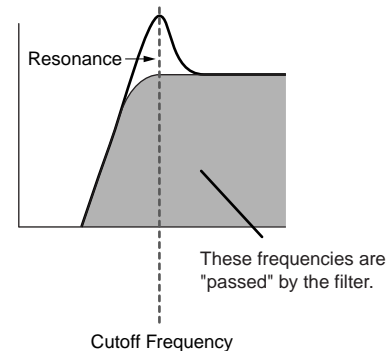
The Low Pass Filter is shown in the illustration above — however, the MOTIF features other Filter types as well. This section introduces you to the four types.

• Low Pass Filter (above)

This only passes signals below the Cutoff frequency. You can then use the Reso (Resonance) parameter to add further character to the sound.

• High Pass Filter

This only passes signals above the Cutoff frequency. You can then use the Reso (Resonance) parameter to add further character to the sound.



■ Filter

Quick Start Guide (page 84) · Reference (page 140)

This unit modifies the tone of each Element output from Pitch by cutting the output of a specific frequency portion of the sound. You can also set the Filter Envelope Generator (FEG), to control how the filter works over time — letting you set up dynamic changes in tone.

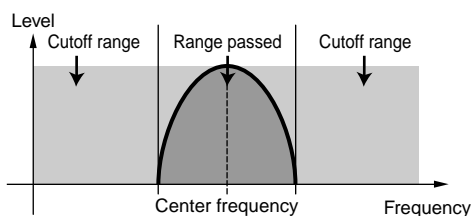
● Cutoff Frequency and Resonance

Filters work by allowing the portion of the signal lower than a given frequency to pass, and cutting the portion of the signal above that frequency. This frequency is referred to as the cutoff frequency. You can produce a relatively bright or darker sound by setting the cutoff.

A parameter that boosts the level of the signal in the area of the cutoff frequency is called Resonance. By emphasizing the overtones in this area, this can produce a distinctive “peaky” tone, making the sound brighter and harder.

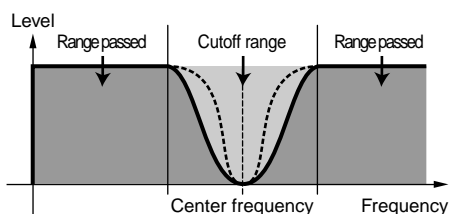
• Band Pass Filter

This only passes a band of signals around the Cutoff frequency. The width of this band can be varied.



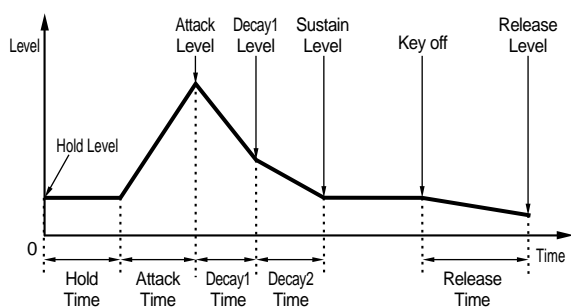
• Band Elimination Filter

This attenuates a band of signals around the Cutoff frequency, but passes everything else.



● FEG (Filter Envelope Generator)

Using the FEG, you can control the transition in tone from the moment a note is pressed on the keyboard to the point at which it is released. As illustrated at right, the Filter Envelope consists of five Time (transition speed) parameters and five Level parameters (for the amount of filtering). When you press a note on the keyboard, the cutoff frequency will change according to these envelope settings. This is useful for creating automatic wah effects, for example. Furthermore, different FEG parameters can be set for each Element.



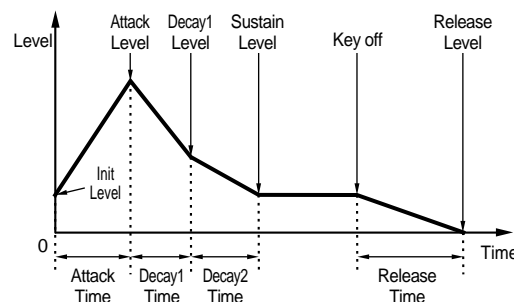
■ Amplitude

Reference (page 145)

This unit controls the output level (amplitude) of each Element output from Filter. The signals are then sent at this level to the Effect block. Also, by setting the AEG (Amplitude Envelope Generator), you can control how the volume changes over time.

● AEG (Amplitude Envelope Generator)

Using the AEG, you can control the transition in volume from the moment a note is pressed on the keyboard to the point at which it is released. As illustrated at right, the Amplitude Envelope consists of five Time (transition speed) parameters and five Level parameters (for the amount of filtering). When you press a note on the keyboard, the volume will change according to these envelope settings. Furthermore, different AEG parameters can be set for each Element.



■ LFO (Low Frequency Oscillator)

Reference (page 147)

As its name suggests, the LFO creates waveforms of a low frequency.

These waveforms can be used to vary the pitch, filter or amplitude of each Element to create effects such as vibrato, wah and tremolo. LFO can be set independently for each Element; it can also be set globally for all Elements.

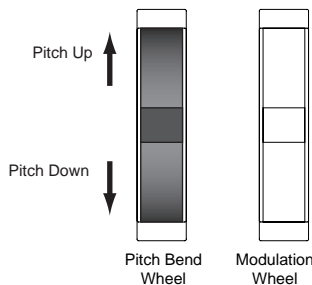
Controllers

The MOTIF gives you an amazing amount of control options. Not only is it equipped with the conventional Pitch Bend and Modulation Wheels, it also features special knobs and sliders — and has an additional set of rear-panel jacks for connecting foot controllers and footswitches. You can connect controllers to the rear panel jacks to control various parameters by foot as well as by hand.

This section explains the basic functions of each controller.

Pitch Bend Wheel

This wheel's prime function is to control pitch. Move the wheel up or down to bend the pitch up or down.

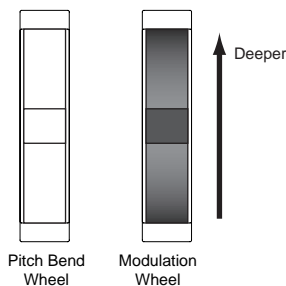


NOTE Pitch Bend Range can be set for each Voice (page 132). The wheel can also be assigned other parameters (page 134).

NOTE Even if a different parameter is assigned to the wheel, Pitch Bend messages are still transmitted through MIDI OUT when it is being used.

Modulation Wheel

The more you move this wheel up, the greater the modulation that is applied to the sound.



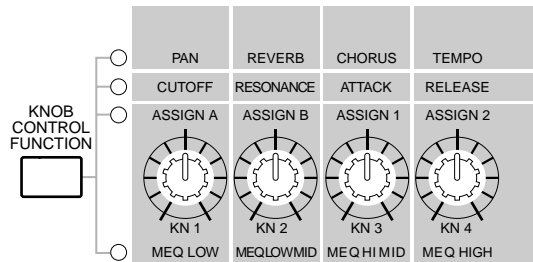
NOTE Modulation depth can also be set beforehand. Also, the wheel can be assigned to different parameters, such as volume or pan (page 134).

Knobs

These knobs let you change various aspects of the Voice's sound in real time — while you play. Turn a knob to the right to increase the value, and left to

decrease it. You can change which particular group of functions or parameters the knobs are assigned to by pressing the [KNOB CONTROL FUNCTION] button. Selecting the ASSIGN group (A, B, 1, 2) lets you control a group of user-assignable functions.

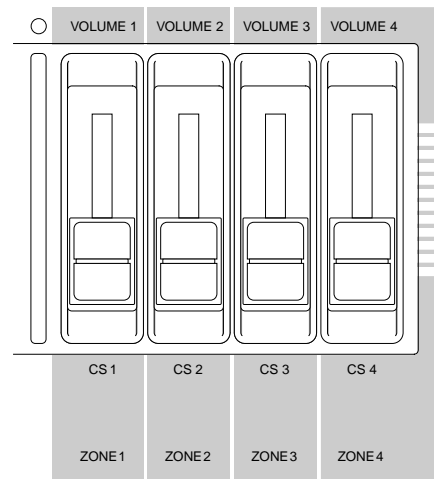
NOTE Common system parameters are assigned to Knobs [A] and [B] (page 256). Voice-specific parameters are assigned to Knobs [1] and [2] (page 132). Knobs [1] and [2] can be assigned to Control Set Source.



NOTE A preset of suitable parameter settings is assigned to each Voice. By using each knobs [1] and [2], you are in effect adjusting these settings by a certain amount. If these parameters are already preset at their minimum or maximum settings, the settings cannot be exceeded.

Control Sliders (CS)

In the Voice mode, these are used to control the volume of each of the four Elements. In the Performance mode, these are used to control the volume of the four parts. In the Song/Pattern mode, these let you adjust the volume of specific tracks, (parts) depending on which group of tracks is currently selected.



When the selected tracks (parts) are 1-4:	1	2	3	4
When the selected tracks (parts) are 5-8:	5	6	7	8
When the selected tracks (parts) are 9-12:	9	10	11	12
When the selected tracks (parts) are 13-16:	13	14	15	16

When the Zone Switch is set to on in the Master Play mode, various functions (Control Number) can be assigned to these Control Sliders (page 273).

Foot Controller

An optional Foot Controller (such as the FC7), connected to the FOOT CONTROLLER jacks (page 18) on the rear panel, can be assigned to a number of controller parameters. By using a foot controller for parameter control, both your hands are left free to play the keyboard (or to operate other controllers), — exceptionally convenient when you're playing live.

NOTE Foot Controller parameters can be set for each Voice.

Footswitch (assignable)

An optional Yamaha FC4 or FC5 Foot Switch connected to the rear panel FOOT SWITCH ASSIGNABLE jack (page 18) can be assigned to a range of parameters. It is suited for switch-type (on/off) controls, such as Portamento Switch, increment/decrement of a Voice or Performance Number, start/stop of the Sequencer, and holding the Arpeggiator on or off.

NOTE The parameter assigned to the Footswitch is set in the Utility mode (page 256).

Footswitch (sustain)

An optional FC4 or FC5 Footswitch connected to the SUSTAIN jack on the rear panel (page 18) lets you control sustain — particularly useful when playing piano and strings voices.

NOTE You cannot assign a function other than Sustain to the SUSTAIN jack.

Breath Controller

You can connect an optional Breath Controller (BC3) to the BREATH jack (page 18) on the rear panel. Then use it to control a large number of the MOTIF's parameters, particularly those controlled by a wind player's breath: dynamics, timbre, pitch and so on. The Breath Controller is ideally suited for realistic expression with wind instrument type Voices.

NOTE Breath Controller parameters can be set for each Voice.

Aftertouch

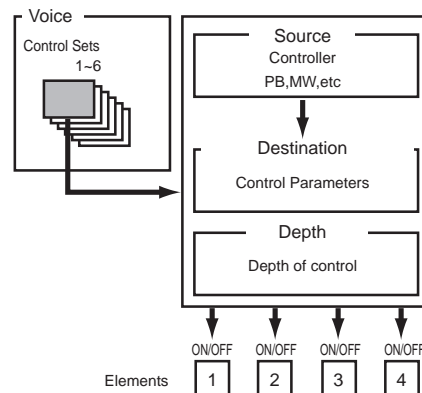
Aftertouch lets you change the sound (adding vibrato, for example) by applying further pressure to a note on the keyboard while it is being held down. This allows real-time expression and control. Aftertouch can be used to control a wide variety of parameters (page 134).

Control Sets

Aside from their default parameters, keyboard aftertouch, the controllers and some of the knobs on the front panel can be assigned to various parameters, as explained on page 48. For example, you could assign Resonance to the Modulation Wheel and set aftertouch to apply vibrato. You are free to assign parameters to suit the kind of sound being played.

These controller assignments are known as Control Sets. As the following illustration shows, you can assign up to six different Control Sets per Voice. Within each Control Set, the controller is known as the Source (Src) and the parameter controlled by the Source is known as the Destination (Dest). There are various Dest parameters available; some will apply to the Voice as a whole, while some will be specific to each of its Elements. Details are given in the Controls List of the separate Data List.

NOTE Details about the available Dest parameter settings are given in the Destination Parameter List of the separate Data List.



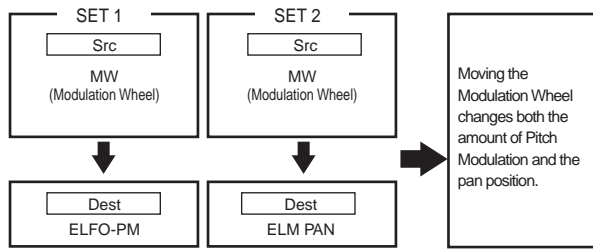
NOTE The Element Switches (page 134) will be disabled if the Dest parameter setting is not specified for the Elements (i.e., to settings 00 to 33).

■ Using one source to control several destinations

By creating Control Sets, you can change sounds in a variety of ways.

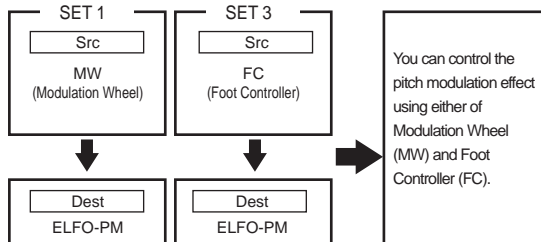
For example, set the Src (Source) parameter of Control Set 1 to MW (Modulation Wheel) and the Dest (Destination) parameter to ELFO-PM (Element LFO Pitch Modulation Depth). Then set the Src parameter of Control Set 2 also to MW, but set the Dest parameter to ELM PAN (Element Pan). You will also need to specify the Element to be controlled and also the depth (amount) of control.

In this example, when you move the Modulation Wheel upward, the amount of Pitch Modulation increases accordingly, and the Element is panned from left to right. In this way, you can have the sound change in several different ways, simply by adjusting a single controller.



■ Using several sources to control one destination

Continuing from the example above, now create another Control Set where Src is set to FC (Foot Controller) and Dest is set to ELFO-PM (Element LFO Pitch Modulation Depth). Again, specify the Element to be controlled and also the depth of control. Now, Pitch Modulation is assigned to both the Modulation Wheel and Foot Controller. In other words, you can also assign several Src controllers to each Dest parameter.



By assigning all six Control Sets, you will have a stunning degree of real-time control over the synthesizer's sounds.

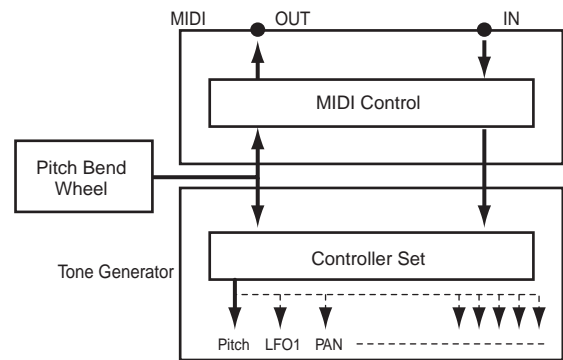
■ Control Sets and External MIDI Control

In a Control Set, the controllers are assigned to the internal parameters of the synthesizer. However, some controllers were originally designed for a particular purpose, and send pre-defined MIDI Control Change messages when used, regardless of their Control Set allocations within the synthesizer.

For example, the Pitch Bend Wheel, Modulation Wheel and keyboard aftertouch were originally designed to control pitch bend, modulation and aftertouch.

Therefore, when you use these controllers, pitch bend, modulation and aftertouch information is always sent to the MIDI Out.

Let's say the Pan parameter is assigned to the Pitch Bend Wheel in a Control Set. Now, when you move the Pitch Bend Wheel, the internal tone generator of the synthesizer will pan the sound; however, at the same time, the original pre-defined Pitch Bend messages will still be sent to the MIDI Out.



The controllers can also send MIDI Control Change messages to control the parameters of external MIDI devices. These assignments can be set in the Utility Mode.

NOTE Since Pitch Bend Wheel, Modulation Wheel and keyboard aftertouch are pre-defined with specific MIDI controls, other MIDI Control Change numbers cannot be assigned to them.

You can also set up a controller such that it sends one kind of Control message to the synthesizer's internal tone generator yet another kind to the MIDI Out. For example, in a Control Set you could assign resonance to Assignable Knob [1]. Then, in the Utility Mode, you could assign Control Change Number 1 (Modulation) to the same knob. Now, when you turn the knob, resonance will be applied to the sound of the internal tone generator; however, at the same time, modulation information will be sent to the external MIDI device connected to the MIDI Out.

Song and Pattern (Sequencer mode)

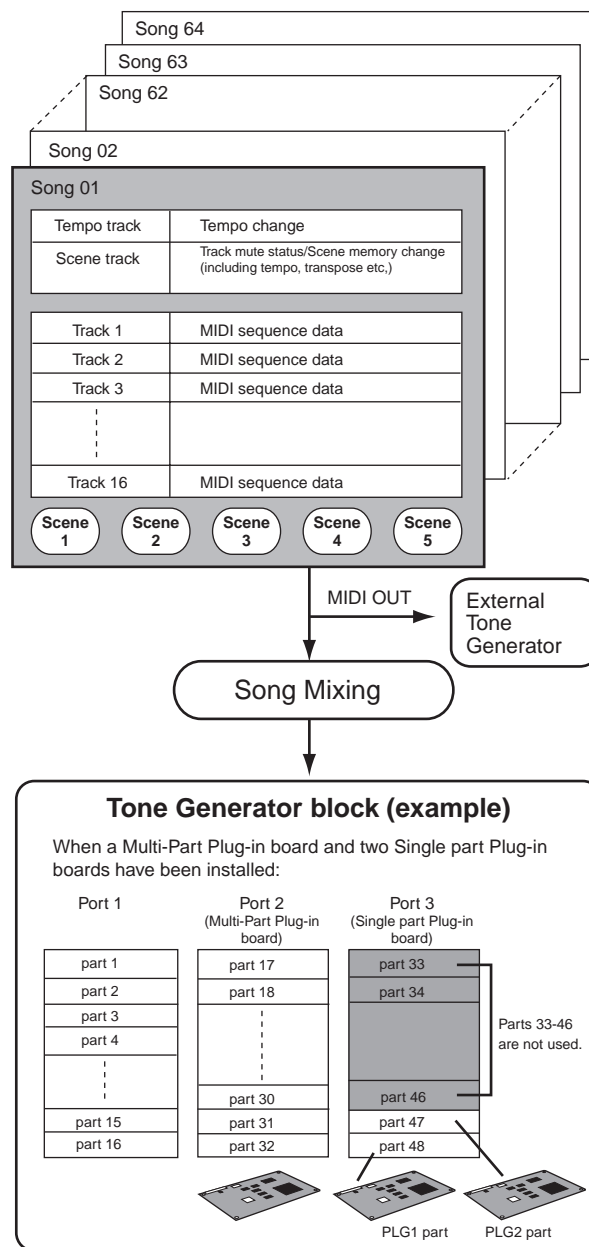
.....
Basic Operation (page 67) · Reference (pages 177, 215)

Songs and Patterns are MIDI sequence data consisting of 16 tracks.

- A Song on the MOTIF is effectively the same as a Song on a sequencer, and playback automatically stops at the end of the recorded data.
- In the MOTIF, the term “pattern” refers to a relatively short pattern — say, 4 to 16 measures (up to 256 measures) — which is used for looped playback. Therefore, once Pattern playback starts, it continues until you press the [■] button. The MOTIF features a variety of preset Phrase data that is used as the basic material in making up Patterns.

Track structure of Song

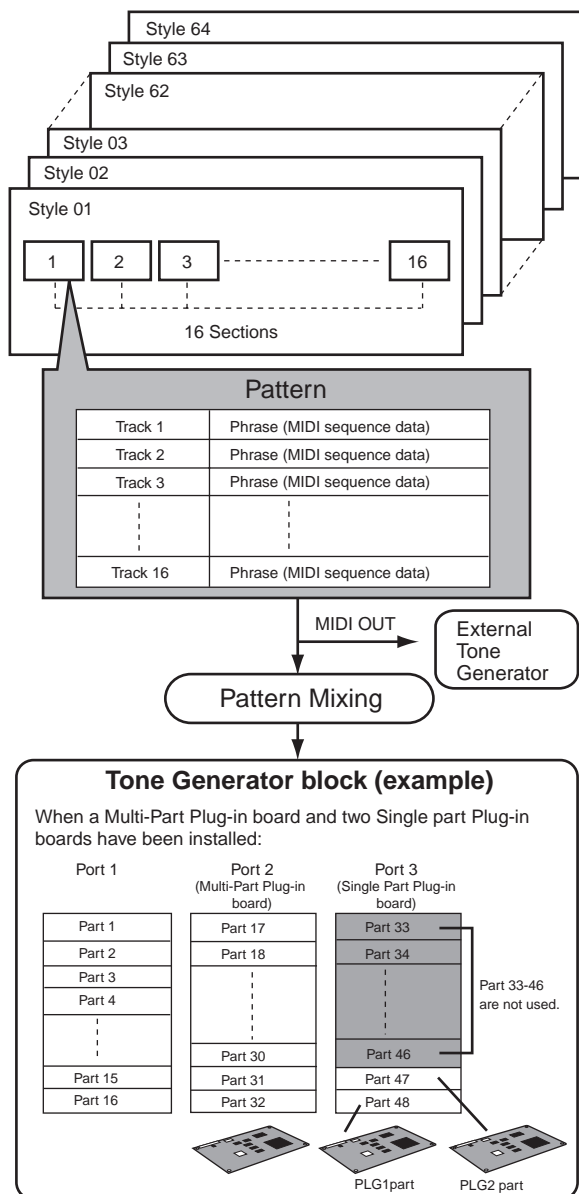
The following illustration shows the track structure of Song. Songs are created by recording MIDI data to individual tracks.



Song playback uses up to 16 parts (from those shown above).

Track structure of Pattern

Patterns consist of Phrases (as shown below), and you can create them by recording MIDI data for each track, and by freely arranging the various Phrases (Preset/User).



Pattern playback uses up to 16 parts (from those shown above).

■ Style and Section

A Pattern consists of a “Style” (musical style) and a “Section” (pattern variation). You can play the Pattern by selecting a Style and its Section.

■ Phrase

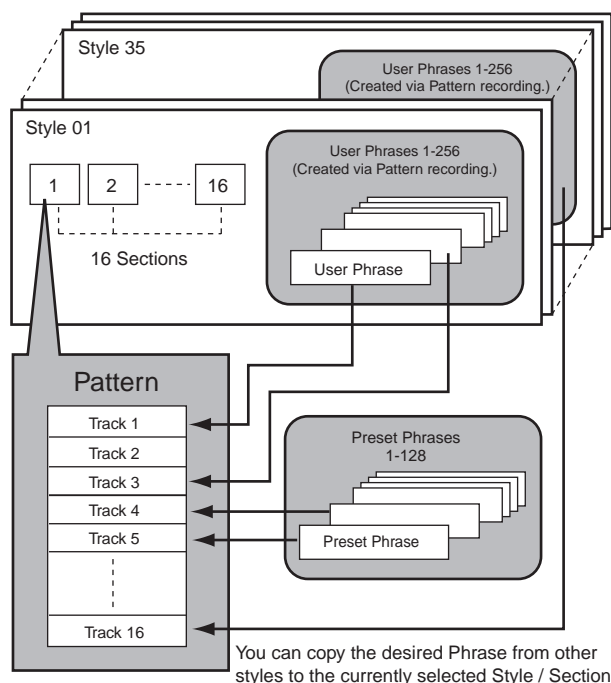
This is the basic MIDI sequence data — and the smallest unit — used in creating a Pattern. “Phrase” is a musical Pattern Phrase for a single instrument, such as a rhythm pattern for the rhythm part, a bass line for the bass part, or a chord backing for

the guitar part. The MOTIF features 128 Preset Patterns, and features memory space for 256 of your own original User Phrases.

Pattern creation by the Patch function (Pattern)

Quick Start Guide (page 105) - Reference (page 219)

The Patch function allows you to create a “composite” style by combining various Phrases from the Preset and User Phrases as shown below.



MIDI tracks and Sample tracks

The Song/Pattern tracks (1 - 16) of the MOTIF are divided into two groups: MIDI tracks and Sample tracks.

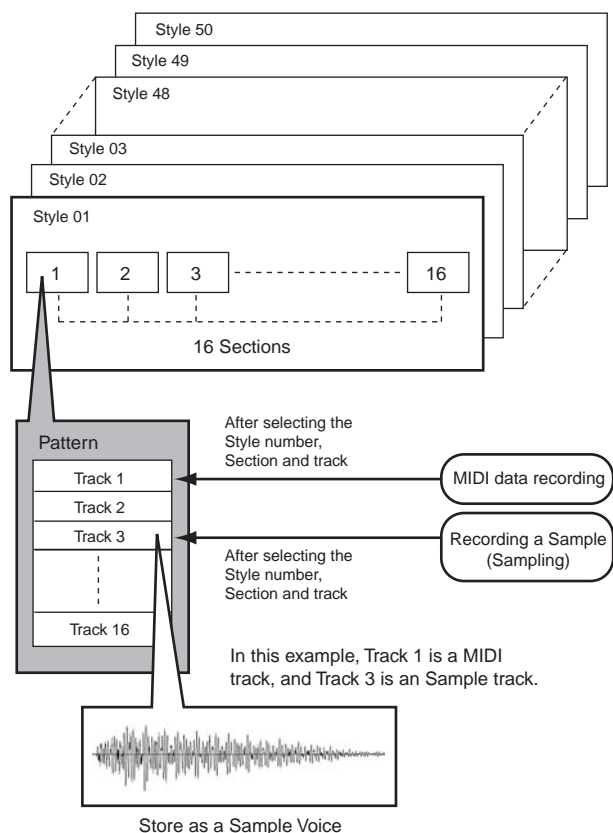
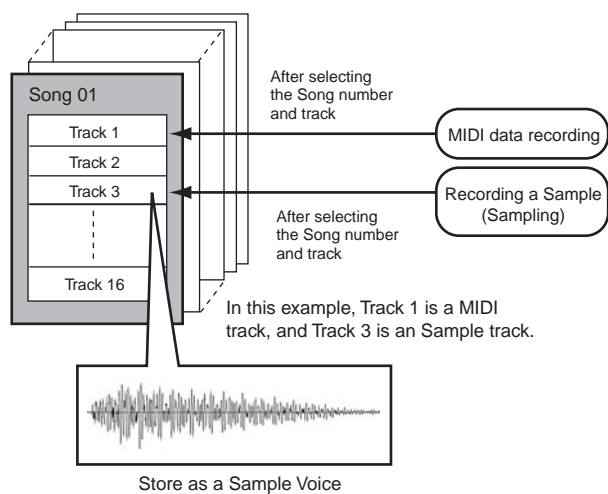
■ MIDI tracks

These are tracks in which the performance data (used to play the internal Voices or Plug-in Voices) is recorded as MIDI data. This is the same as sequence tracks on a MIDI sequencer.

■ Sample tracks — with Sample Voices

Voices which are automatically created and stored using the Sampling feature (page 58) in the sequencer (Song/Pattern) mode, are referred to as “Sample Voices.” tracks using these Sample Voices are referred to as “Sample” tracks — to distinguish them from the MIDI tracks.

Sample Voices are stored as original, dedicated Voices for each Song or Style. This means that you cannot take a Sample Voice belonging to one Song or Style and use it in another Song or Style. For details on Sample Voices and the Sampling function, see page 233.



MIDI track recording method

The following explanations are important points for you to keep in mind as you record your User Songs/Patterns.

Realtime recording and Step recording

With realtime recording, the MOTIF functions in the same way as a tape recorder, recording the performance data as it is played. This allows you to capture all the nuances of an actual performance. With step recording, you can compose your performance by “writing” it down one event at a time. This is a non-realtime, step recording method — similar to writing music notation onto paper.

Replace and Overdub (Song/Pattern)

Replace

You can use this method when you want to overwrite an already recorded track with new data. The first recording is lost, and the new one takes its place.

Overdub

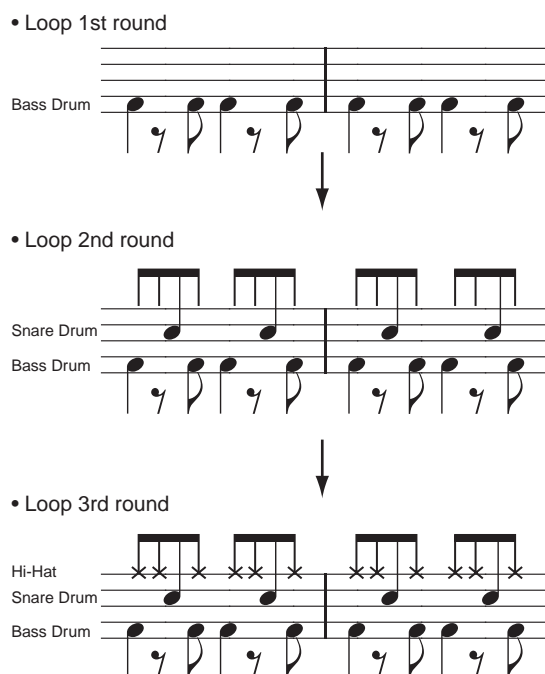
You can use this method when you want to add more data to a track that already contains data. The first recording is not lost, and the new one is added. This method lets you build up a complex phrase together with Loop recording (below).

Loop Recording (Pattern)

Pattern repeats the rhythm pattern of several measures (4 to 16 measures) in a “loop,” and its recording is also done using loops.

This method is convenient when recording a Pattern Phrase using the Overdub method (above).

As shown in the example below, notes that you record will play back from the next repetition (loop), letting you record while hearing previously recorded material.

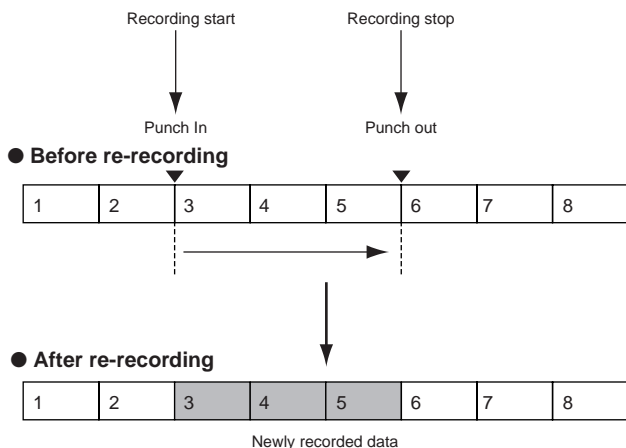


NOTE Loop Recording can only be used with Realtime recording.

■ Punch In/Out (Song)

You can use this method when you want to re-record only over a specific area of the track. In this case, you must set the start and end points before you begin the re-recording.

In the eight-measure example below, the third measures through the fifth measure are re-recorded.



NOTE Punch In/Out Recording can only be used with Realtime recording.

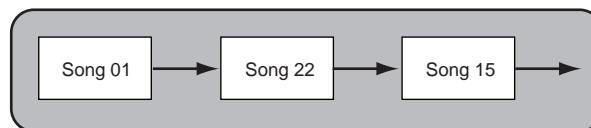
NOTE Note that Punch In/Out method always replaces (destroys) the original data over the specified area.

Sample track recording method (Sampling)

See page 58.

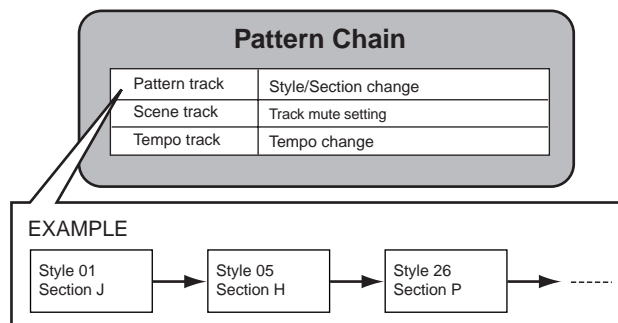
Song Chain

This function allows songs to be “chained” together for automatic sequential playback. The MOTIF allows you to create one Song Chain data.



Pattern Chain

Pattern Chain allows you to string several different Patterns together to make a single Song. You can have the MOTIF automatically change Styles and Sections by creating Pattern Chains in this way beforehand. You can also use them when creating Songs based on a certain Pattern, since the created Pattern Chains can be converted into a Song. The MOTIF allows you to create one Pattern Chain data.



Arpeggio

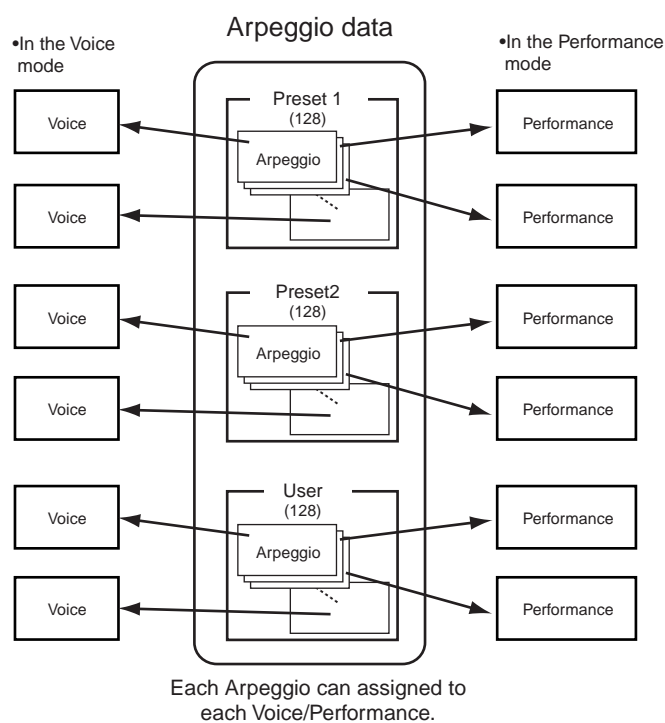
.....
Quick Start Guide (page 91) - Reference (page 128)

This function automatically triggers preset arpeggio phrases, according to the keys you play.

The Arpeggio function is particularly suited to dance/techno music genres. You can assign the desired Arpeggio Types to each Voice/Performance, and adjust the tempo. You can also set the Arpeggio playback method, Velocity range and Play Effects to create your own original grooves. What's more, Arpeggio playback can be transmitted through the MIDI Out.

Arpeggio structure

The following illustration shows the Arpeggio structure.



Four playback types of Arpeggio

Arpeggio types are divided into the four following categories.

■ Sequence

Creates a general arpeggio phrase. Mainly octave up/down phrases.

■ Phrase

Creates phrases that are more musical than Sequence. Starting with "Techno," there are phrases for a wide variety of musical genres, and for creating backing tracks for guitar, piano and other instruments.

■ Drum Pattern

Creates drum pattern-type phrases. Any note produces the same drum pattern.

This type is ideal for use with drum and percussion sounds.

■ Control

Creates tonal changes by the control change data sequence. No note data is created.

Song/Pattern and Arpeggio

■ Recording Arpeggios to a Song/Pattern

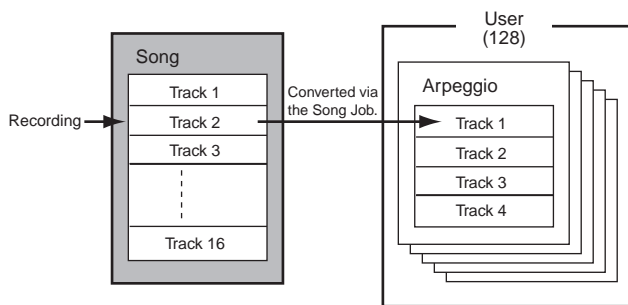
You can record Arpeggio data to a Song or Pattern. The actual note data of the Arpeggio is recorded as is to a specific track in the Song/Pattern during recording, when you set Arpeggio Record to ON.

■ Arpeggio on/off during Song/Pattern playback

Also, Arpeggio On/Off can be set individually for each part of a Song/Pattern. Just like playing Arpeggios manually from the keyboard, this inserts Arpeggios in the playback of Song/Pattern sequence data.

Creating User Arpeggios

Actually, there is no direct operation for recording Arpeggios. First, you have to record a Phrase to a Song track. Then, use the appropriate Song Job function to convert the data to Arpeggio data.

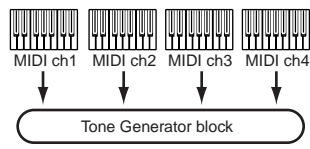
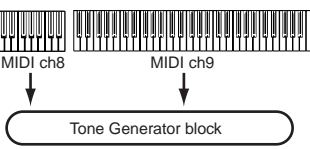


NOTE Arpeggio data consists of four tracks. However, data conversion in the Song Job is done one track at a time.

Master (Master mode)

Quick Start Guide (page 93) - Reference (page 268)

The MOTIF is loaded with such a wealth of different features, functions and operations, you may find it difficult to locate and call up the particular feature you need. This is where the Master function comes in handy. You can use it to memorize the operations you use most often in each mode, and call them up instantly anytime you need them with a single button press. The MOTIF has space for a total of 128 of your own User Master settings.

Master number	Setting examples
Master 001	Voice mode Voice number 102
Master 002	Voice mode Voice number 88
Master 003	Performance mode Performance number 043 *Zone Switch Off
Master 004	Performance mode Performance number 059 *Zone Switch Off
Master 005	Performance mode Performance number 077 *Zone Switch On 
Master 006	Performance mode Performance number 093 *Zone Switch On 
Master 007	Song mode Song 018
Master 008	Song mode Song 008
Master 009	Pattern mode Pattern 014
Master 010	Pattern mode Pattern 029
⋮	
Master 128	Song mode Song 035

•Zone(*) is available only when you specify "Voice" or "Performance" in the Memory display in the Master Play mode and store the settings to a User Master. Details are described later.

•Parameters other than those shown above (e.g., Knob/Slider settings) can be stored. See page 273 for details.

Keep in mind that the settings you can store to a User Master in the Voice/Performance mode differ from those you can store in the Song/Pattern mode. Here are the main differences:

● Storing settings in the Song/Pattern mode

In general, you can store specific Song numbers in the Song mode, Pattern numbers in the Pattern mode.

NOTE Operations and settings in File mode, Utility mode and Sampling mode cannot be stored to a User Master.

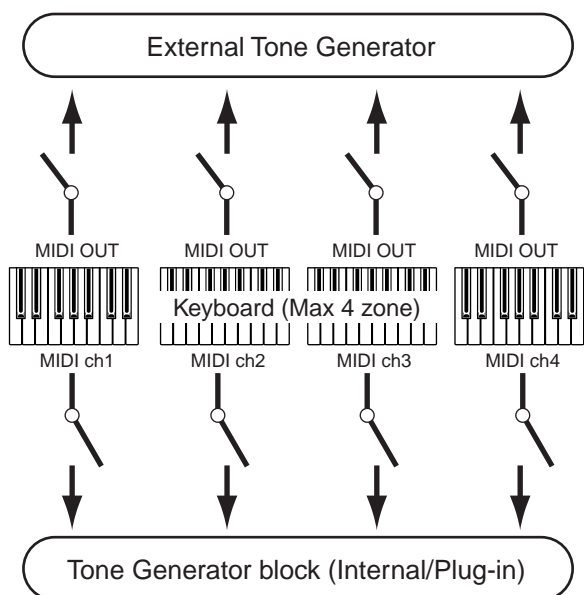
● Storing settings in the Voice/Performance mode

In addition to specific Voice or Performance numbers, you can also store master keyboard functions — such as the Zone settings, in which the MOTIF keyboard is divided into up to four different Zones.

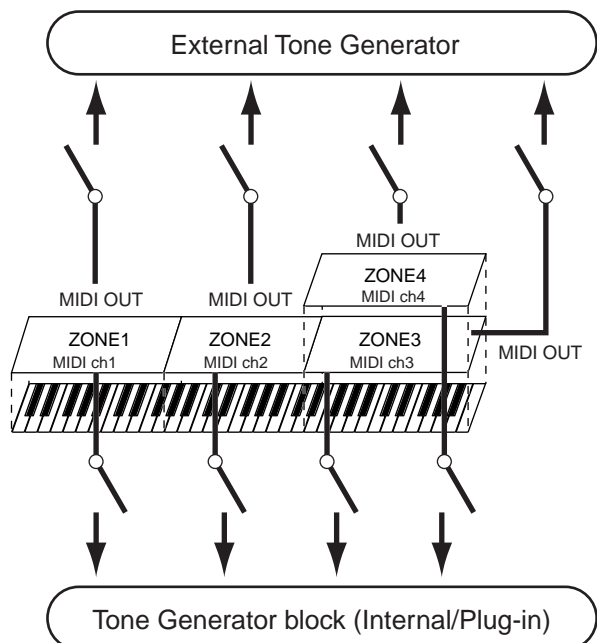
Four Zones (Voice Performance mode)

In the Voice Performance mode, the keyboard can be divided into a maximum of four separate Zones (as shown below) — each with its own MIDI channel setting. In this way, you can use just a single keyboard to control several different instrument parts independently. Moreover, you can have these independent Zones control different channels on connected MIDI devices as well.

You can set these four Zones and store them as a User Master in the Master mode.



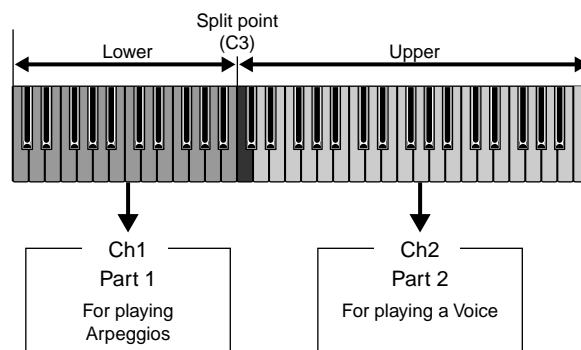
The four Zones can also be configured as Voice “layers” — letting you have more than one Voice sound at the same time when you play within a single Zone. (See the example below.)



Split

You can use the Zone settings to create a “Split” — dividing the keyboard into two key ranges, at a specific note (split point).

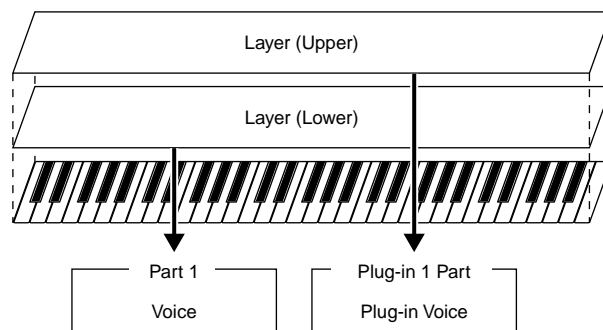
In the example below, the keyboard is split at C3, with the lower range used to trigger Arpeggios, and the upper range used conventionally to play a Voice.



Layer

You can also use the Zone settings to create a “Layer” — in which the keyboard is used to play two separate parts simultaneously, in unison with each other.

In the example below, the keyboard plays two Voices in unison — one an internal Voice, and the other a Plug-in Voice.

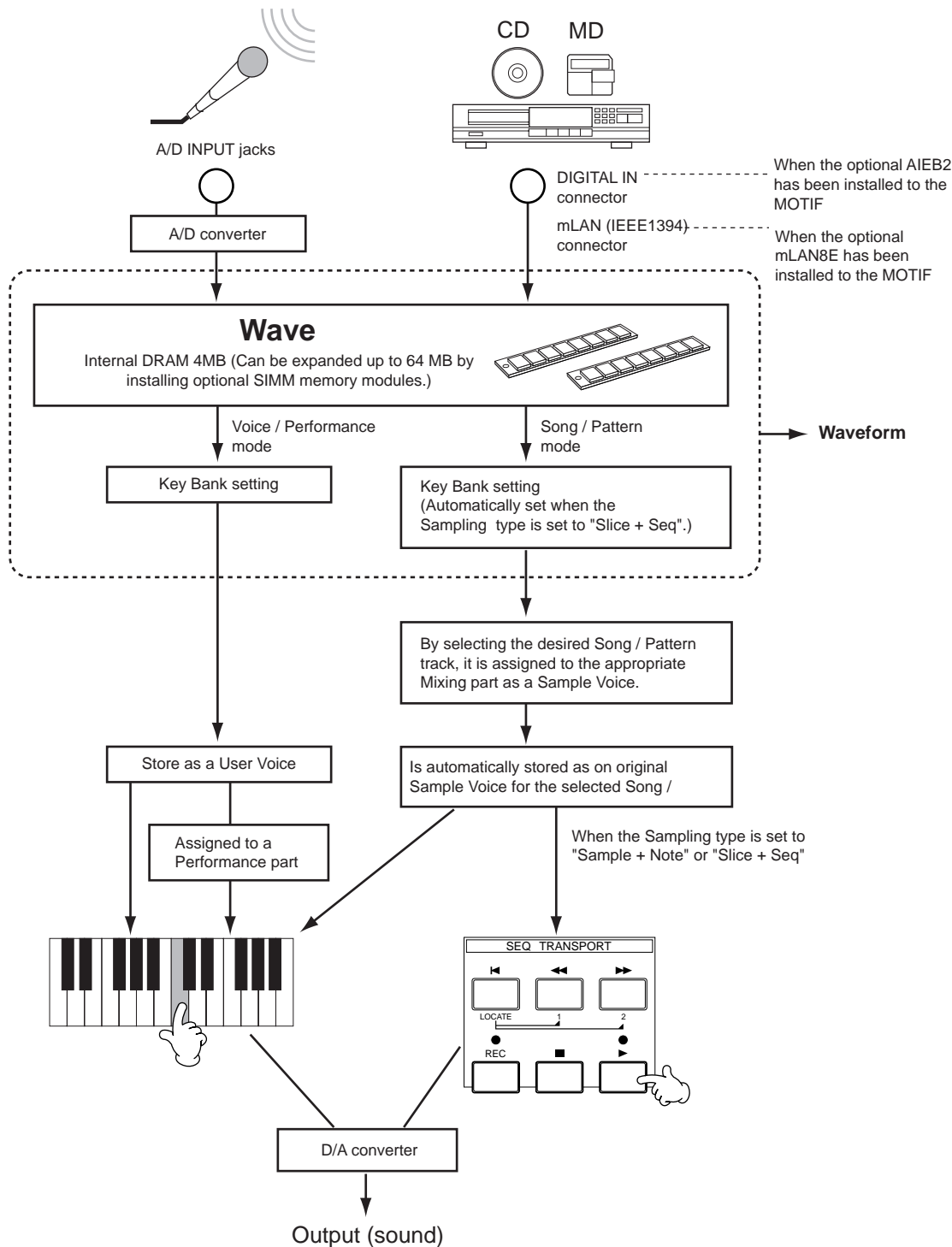


Sampling

Quick Start Guide (page 99) - Reference (page 233)

Sampling is a powerful function that lets you bring your own recorded sounds — voice, instrument, rhythm, special sound effects, etc. — into the system of the MOTIF, and play those sounds just like any other MOTIF sound. Individual waveform data contained in the MOTIF is referred to as a “Sample.”

The following diagram shows the Sampling structure.



Data created by Sampling

Regardless of the mode, the raw Sampled data is the same, of course. However, various parameters are different, depending on the particular mode or settings. Briefly, here is an explanation of what kinds of data are created in the Sampling function.

● Sampling data common to all modes

● Wave (Sample data)

This is the raw audio data stored in the MOTIF's memory when sampling. For details on Wave, see page 44.

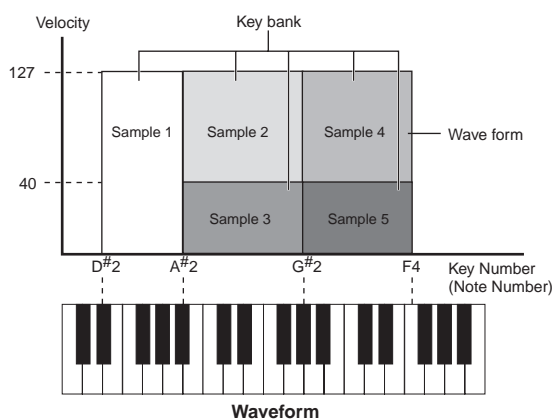
● Key Bank

The note range and velocity range to which the Sample is assigned, is called the Key Bank.

● Waveform

The group of Key Banks to which sample data is assigned is called the Waveform.

For a clearer idea of the explanations above, see the following illustration. In this example, the Waveform is made up of five Samples, assigned to a key range of D#2 - F4, in five Key Banks.



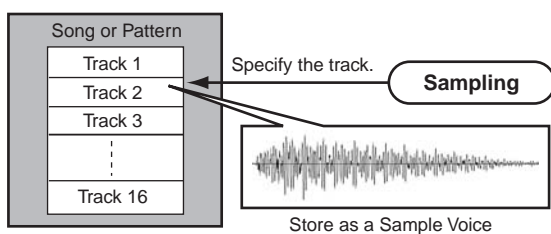
● Data created by sampling in the Voice/ Performance mode

● User Voice

The sample data of Waves recorded or imported to the MOTIF cannot be played directly. First, they must be saved as User Voices, which when selected, can be played from the keyboard or sequencer. Also, these User Voices can be assigned as Performance parts — just as with the Preset Voices.

● Data created by sampling in the Song/ Pattern mode

● Sample Voice

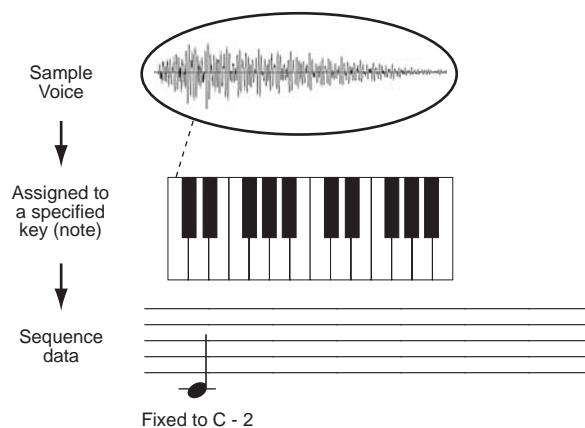


Voices that are automatically stored when sampling in the Song/Pattern mode are referred to as “Sample Voices.” Sample Voices can be assigned to instrument parts corresponding to the track which was assigned in the Sampling Setup display, and they can be sounded while Song/Pattern data is being played back.

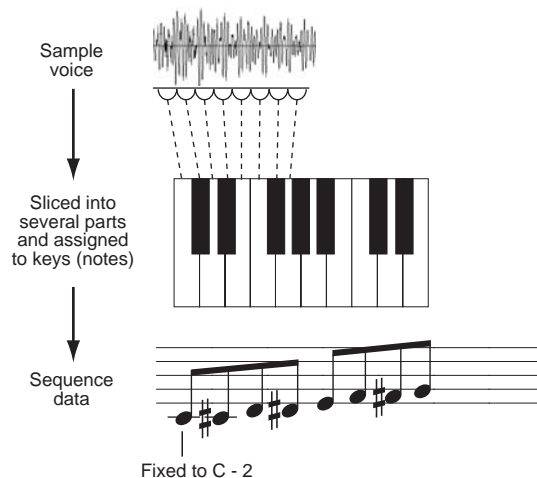
Sample Voices are original, dedicated Voices for the particular Song/Pattern that was selected when sampling. Because of this, you cannot take a Sample Voice belonging to one Song or Pattern and use it in another Song or Pattern. In essence, Sample Voice data is the same as that of Normal Voices or Drum Voices — with the exception that you cannot select Sample Voices in the Voice or Performance mode. (However, you CAN select the Wave of the Sample Voice in Voice Edit.)

● Note Data (when the Sample type is set to “Sample + Note”)

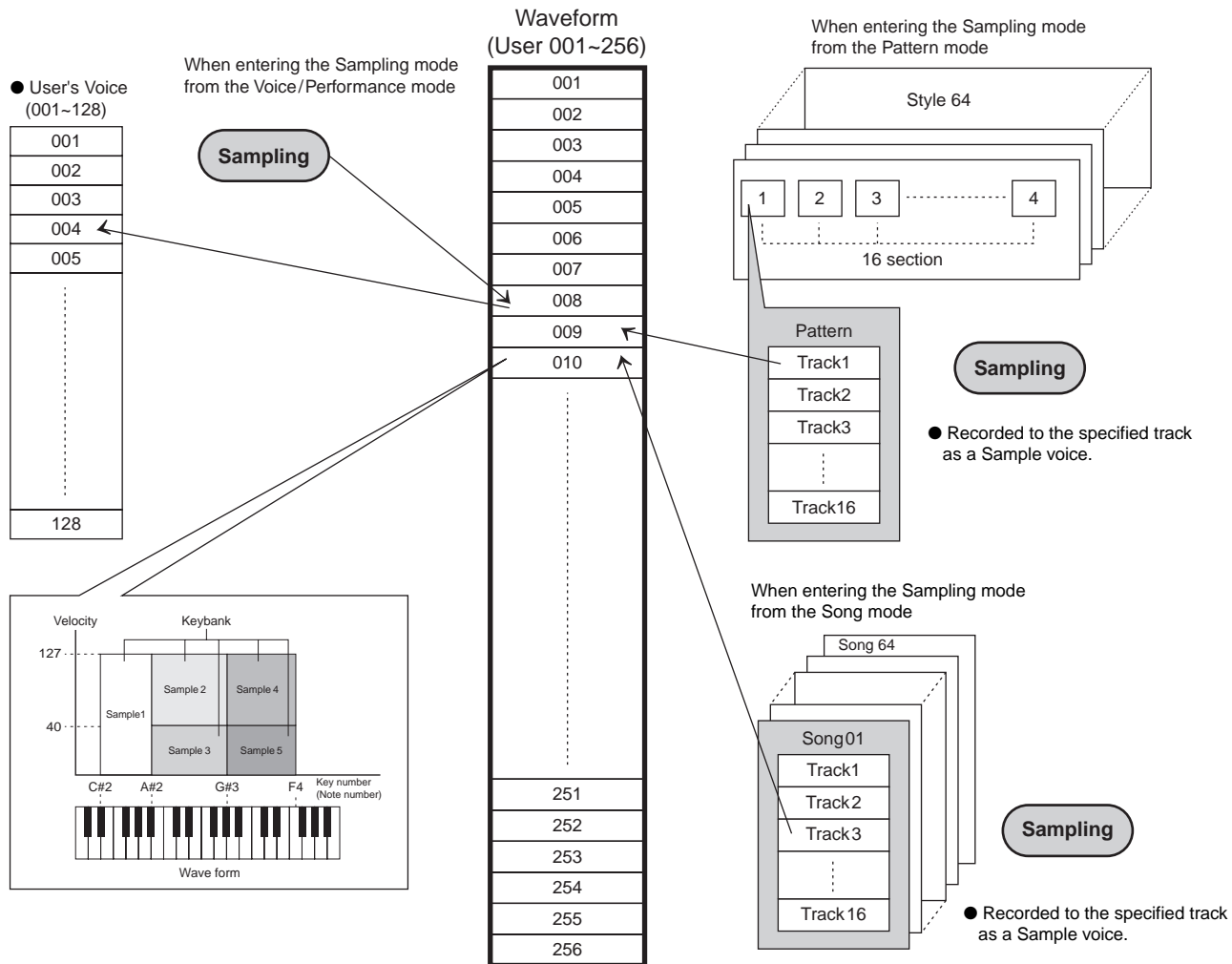
This not only stores the sampled wave as a Sample Voice in the Song/Pattern mode, but it also records it to the assigned sequencer track.



● Key Bank and Sequence data according to Audio phrase (when the Sample type is set to “Slice + Seq”)



User Voices/Sample Voices and Waveform



NOTE When using the Sampling function, samples are stored to destination waveforms in numerical order, starting from the lowest number waveform.

NOTE Up to 128 keybanks can be assigned to a single waveform. The MOTIF allows for creation of a maximum 8192 keybanks.

NOTE You can select and check the 256 waveforms mentioned above from the Oscillator display in Voice Element Edit (page 137).

Three methods of Sample Recording Start

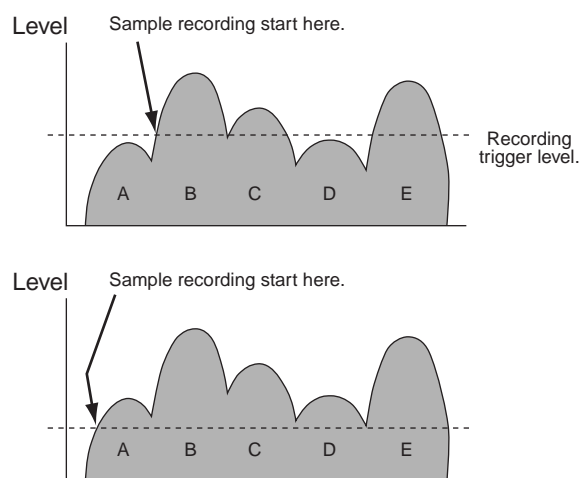
You can start sample recording with one of three methods. This section covers the Sample Recording Start methods corresponding to the available Trigger modes. For information on setting the Trigger mode, see page 237.

■ When Trigger mode is set to “Manual”:

Regardless of the selected mode, sampling starts soon after you press the [F6] (REC) button in the Sampling Setup display (page 236). Sampling also starts regardless of the playback/stop status of the Song/Pattern.

■ When Trigger mode is set to “Level”:

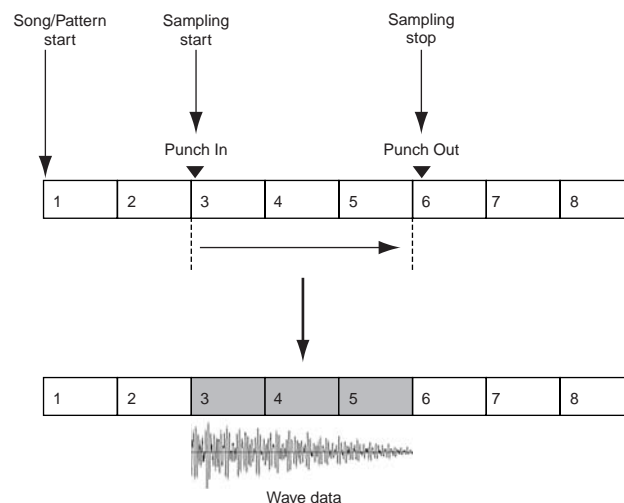
After pressing the [F6] (REC) button in the Sampling Setup display (in any mode), sampling starts as soon as a strong enough audio signal is received. The threshold for this audio-triggered start is called the Trigger Level (explained in the illustration below).



As you can see, the higher the Trigger Level setting, the louder the input audio needs to be in order to start sampling. On the other hand, if the Trigger Level is set too low, a soft noise may be enough to inadvertently start sampling. Sampling also starts regardless of the playback/stop status of the Song/Pattern.

■ When Trigger mode is set to “Meas”:

After pressing the [F6] (REC) button in the Sampling Setup display (page 236), start and stop of sampling is linked to playback of the Song/Pattern. This setting is available only when the Song/Pattern mode and recording type (Rec Type) are set to “Slice + Seq” or “Sample + Note.”

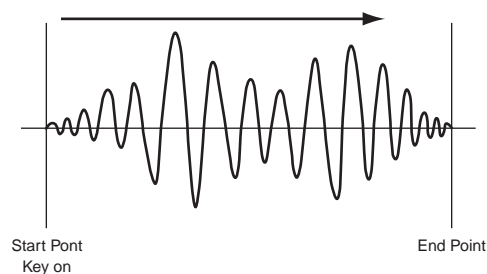


Sample playback types

Samples can be played back in the following three different ways.

■ One Shot

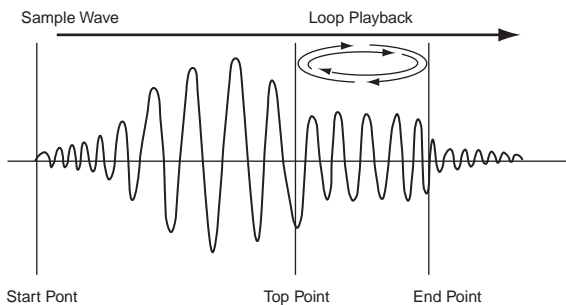
When you press a note on the keyboard, the Sample plays from beginning to end just once. This type of playback is commonly used for drum and percussion sounds.



■ Loop

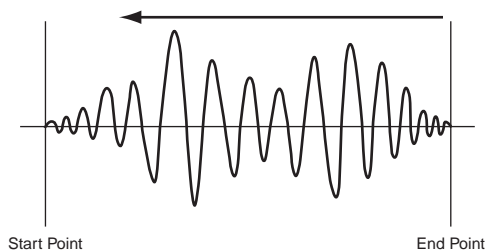
This is used primarily to create long continuous sounds, such as brass and strings, or instruments with naturally long decay, such as piano. An appropriate part of the sample near the end is looped to reproduce a long sustain or decay.

When you play a note on the keyboard, the Sample plays from the start point to the end point. It then returns to the loop start point and plays to the end point again, and keeps doing this until you release the note. With musical instruments in general, the characteristic part of the sound (the “attack” section) is usually at the beginning, just after the start point. After this, the sound does not vary a great deal while the note is being held, and you can set the loop and end points at either end of this section. When playing back a Sample of an instrument that has been looped like this, the attack section of the sound is played back once and then the looped section is played back continuously until you release the note. Looping is also way of creating usable instrument sounds without using up too much memory. You can set each point in the Sampling mode. Since the MOTIF is capable of displaying the entire image of the sampled audio data in the LCD (zoom in and zoom out are available), you can edit the loop points visually — making sample editing accurate and easy.



■ Reverse

When you press a note on the keyboard, the Sample plays from end to beginning just once. This is useful for creating reversed cymbal sounds and other special effects.



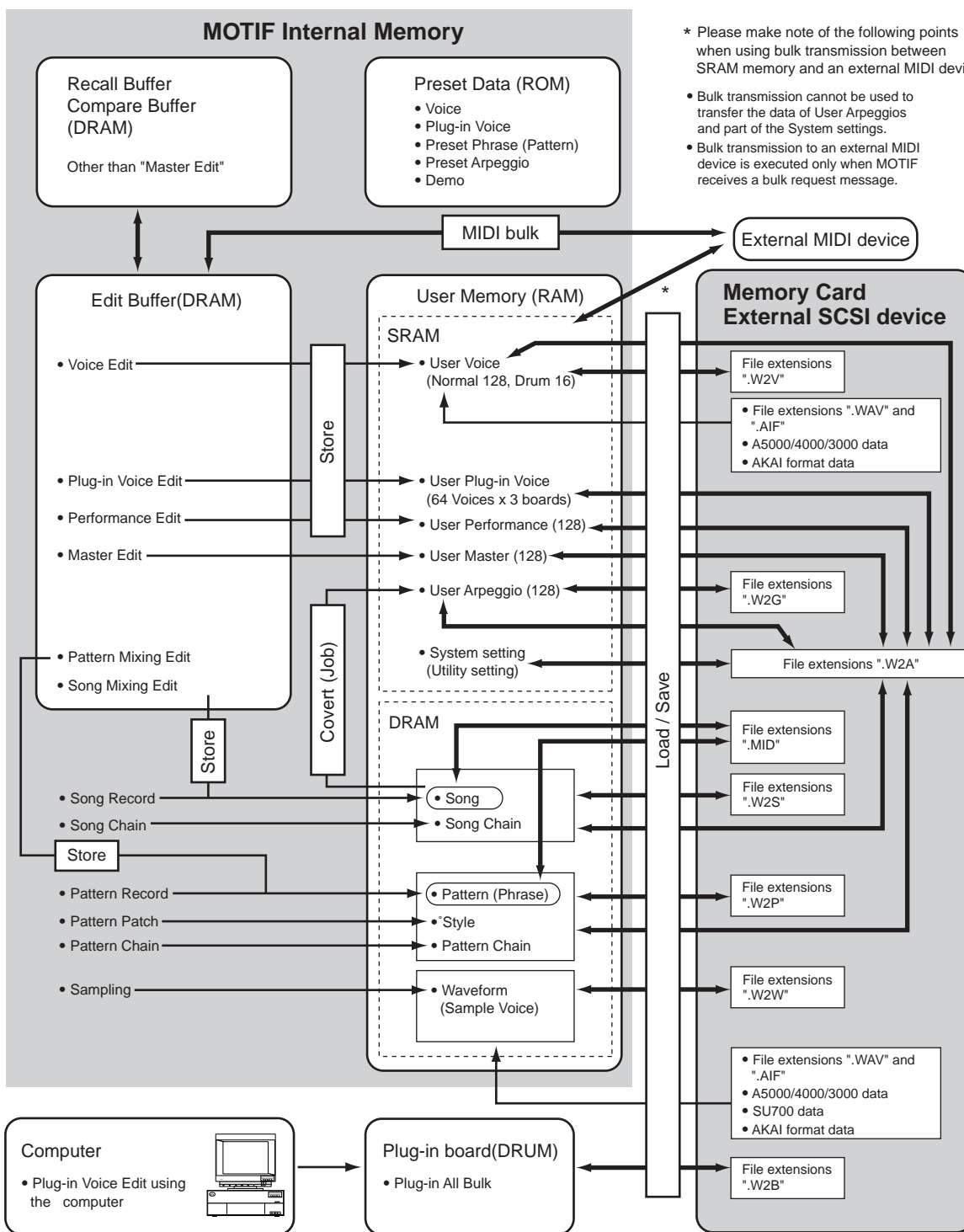
Internal Memory and File Management

Quick Start Guide (page 97) - Reference (page 261)

The MOTIF creates a variety of different kinds of data, including Voice, Performance, Song, and Pattern. In this section, how to store the various types of data and use the memory devices/media for storing them.

Memory Structure

This diagram details the relationship among the MOTIF's functions and the internal memory, memory card, and various external storage devices/media.



Internal Memory

● ROM and RAM

ROM (Read Only Memory) is memory designed specifically for reading out of data, and as such data cannot be written to it. This is the location where preset data for the instrument is permanently stored.

On the other hand, RAM (Random Access Memory) allows both reading and writing of data. This is the location for the edit buffer data and data created by editing or recording.

● SRAM and DRAM

The MOTIF uses two different kinds of RAM, depending on the condition for storing the data: SRAM (Static RAM) and DRAM (Dynamic RAM). The data contained in SRAM is maintained indefinitely, unless the backup battery (lithium battery; page 5) power is too low. On the other hand, data contained in DRAM is lost when the power is turned off. Because of this, you should always store any data residing in DRAM to a memory card or an external SCSI device before turning off the power.

Edit Buffer (DRAM) and Recall Buffer (DRAM)

● Edit Buffer and User Memory

The edit buffer is the memory location for edited data of these types: Voice, Performance, Master, Song, Song Mixing, and Pattern Mixing. Data edited in this location will be stored to the User Memory.

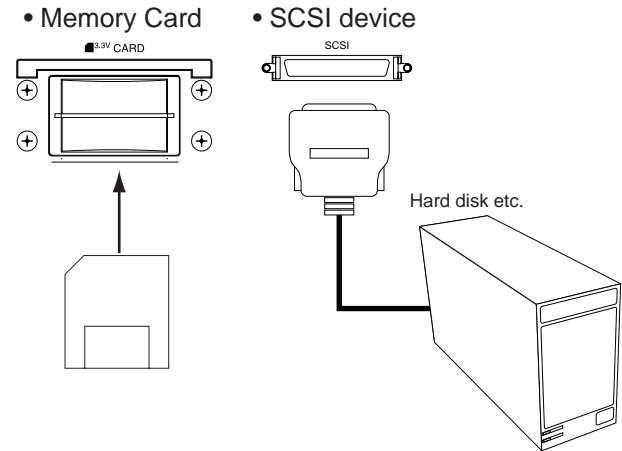
If you select another Voice, Performance, Master, Song, or Pattern, the entire contents of the edit buffer will be rewritten with the newly selected Voice/Performance/Master/Song Mixing/Pattern Mixing data. Make sure to store any important data before selecting another Voice, etc.

● Edit Buffer and Recall Buffer

If you've selected another Voice or Performance without storing the one you were editing, you can recall your original edits, since the edit buffer's contents are stored in backup memory. Keep in mind that the recall buffer is available only in the Voice or Performance mode.

Memory Card/External SCSI storage device

To ensure that your data stored to User Memory are maintained, it is the best way to save important data to Memory Card or external SCSI device so that you can keep them indefinitely. See page 289 for details about Memory Card and see page 27 for details about SCSI device.



There are two different ways to save data created on the MOTIF to memory card or an external SCSI device:

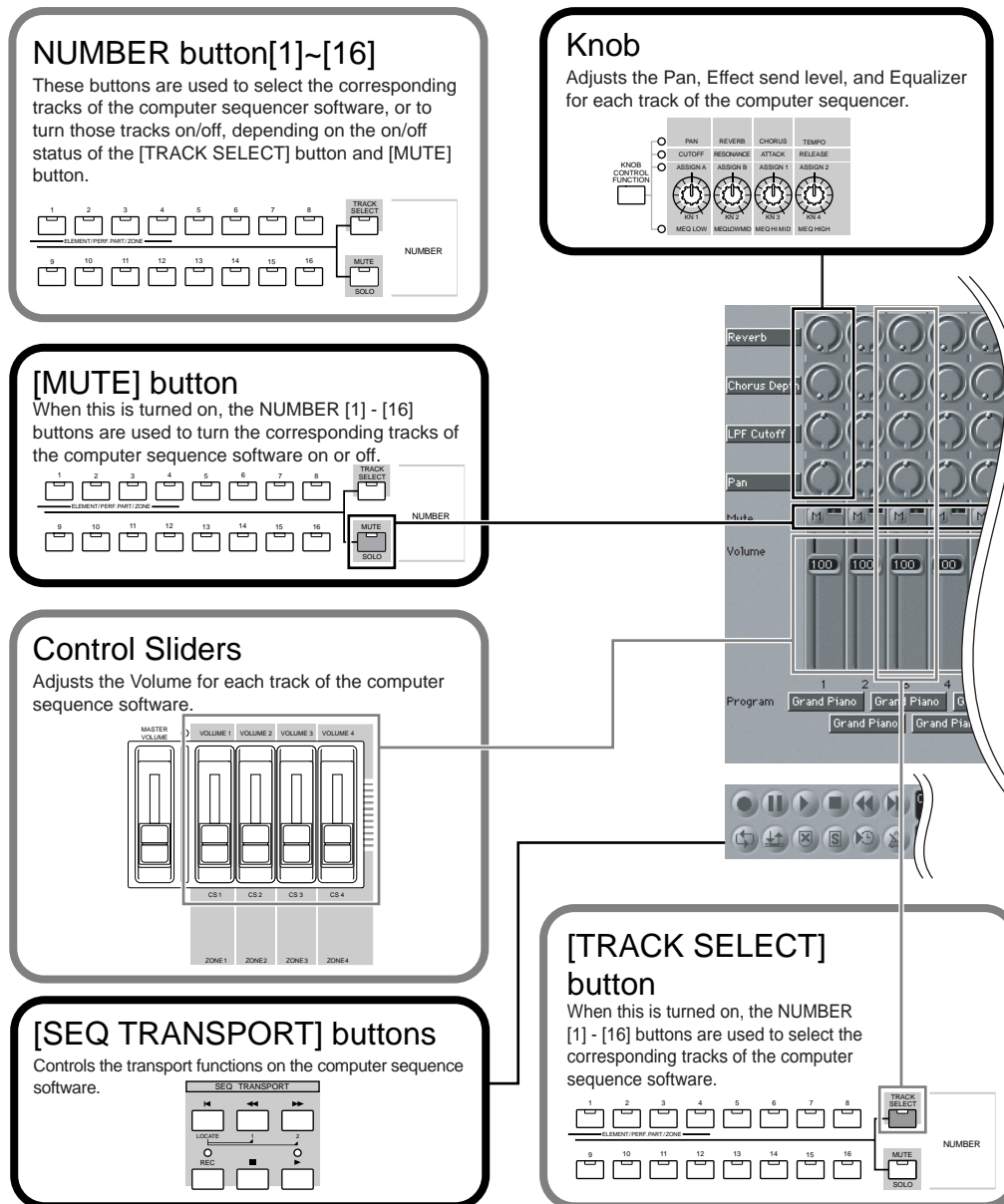
- By saving all data in the User memory as a single file (with the extension “W2A”).
- By saving the files separately according to their specific functions (with the extensions corresponding to each type). See page 262 for details.

Remote Control to Computer Sequence Software

Quick Start Guide (page 119) - Reference (page 256)

When the [REMOTE CONTROL ON/OFF] button is turned on, the following buttons/controllers can control the Audio track mixer and sequencer transport of the computer sequence software connected to the MOTIF.

JA



Computer Sequence Software

The following computer sequence software programs can be controlled via the MOTIF's Remote Control function.

Windows

Cubase VST/32
Logic Audio Platinum Ver4.6
Cakewalk ProAudio Ver9.0
Pro Tools V5.0

Macintosh

Cubase VST 5.0
Logic Audio Platinum Ver4.6
Pro Tools V5.0

NOTE The parameters to be controlled via the Remote Control function differ depending on the computer sequence software. For details, see the Reference section on page 257.

NOTE For certain software programs, it may be necessary to install the setting file in the included CD-ROM. For details on how to install, see the Installation Guide manual.

Basic Operation

In this section, we'll take a look at the fundamental operating conventions of the MOTIF. Here, you'll learn the basics — how to select modes, call up the various functions, change settings, and edit parameter values. Take time to familiarize yourself with these nuts-and-bolts operations, and you'll be on your way to mastering the instrument.

Calling up the Operation Displays

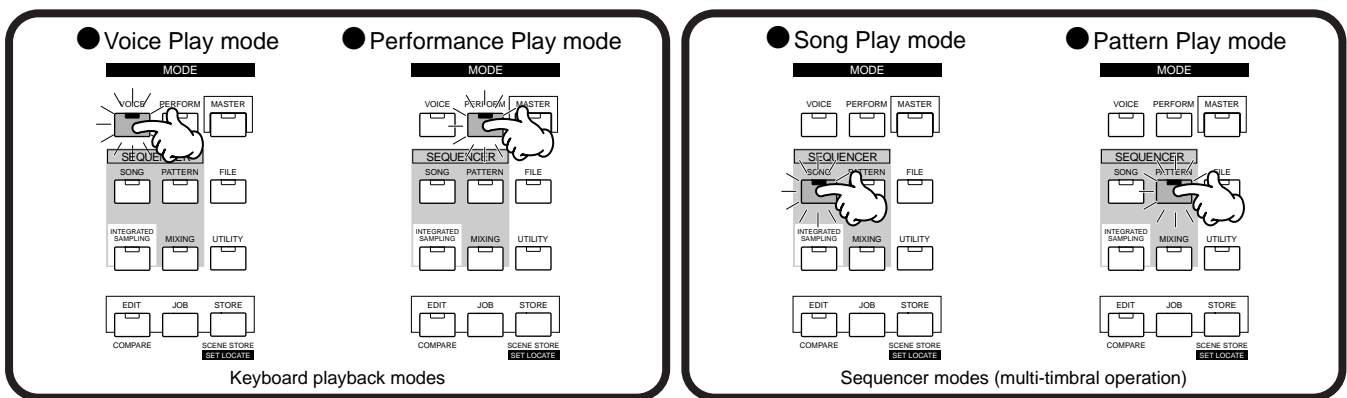
To call up a desired display or parameter, first select a mode, then select one of the function menus of the mode. The section below shows you the button presses necessary to navigate through the various modes and sub-modes.

Selecting Modes

The MOTIF is organized into various modes, each covering a different set of operations and functions.

NOTE For more information on each mode, see page 30.

Four Main modes (Play modes) — Voice, Performance, Song, Pattern



To select another mode, simply press the corresponding mode button.

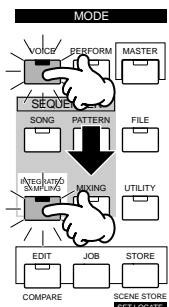
Two Sub-modes — Sampling, Utility

The four main modes (Voice, Performance, Song, and Pattern) have sub-modes — Sampling mode and Utility mode. These two sub-modes can be selected in each main mode.

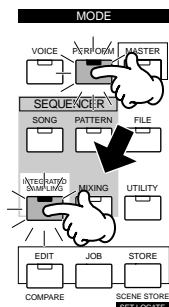
Keep in mind that the particular displays and parameters in the Sampling and Utility modes differ depending on which main mode was active before calling up the sub-mode. For details on the specific differences, refer to the corresponding explanations in the Reference section.

● Sampling mode

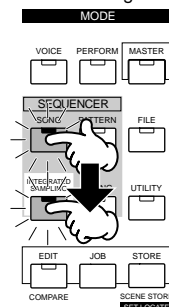
From the Voice mode



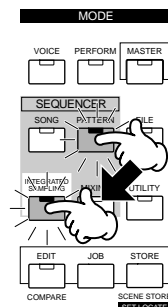
From the Performance mode



From the Song mode



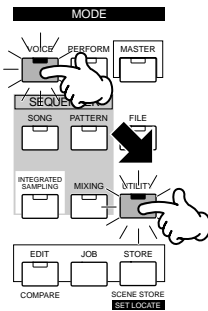
From the Pattern mode



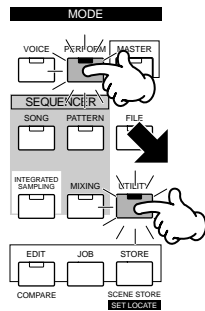
To select another mode, simply press the corresponding mode button.

● Utility mode

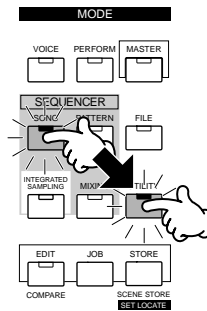
From the Voice mode



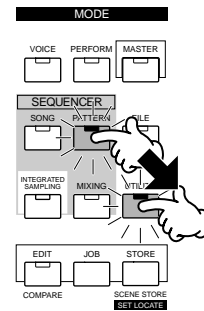
From the Performance mode



From the Song mode



From the Pattern mode



To select another mode, simply press the corresponding mode button.

NOTE Please note that the displays and parameters are different depending on the modes before entering the Sampling/Utility mode.

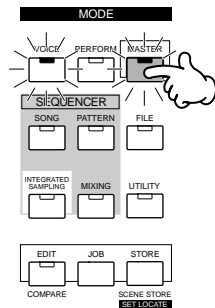
Special Modes — Master mode and File mode

In addition to the modes described above, special two modes are provided — Master mode and File mode.

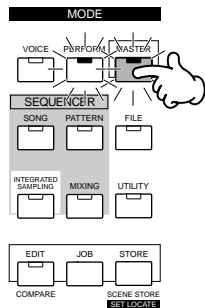
Basic Operation

● Master Play mode

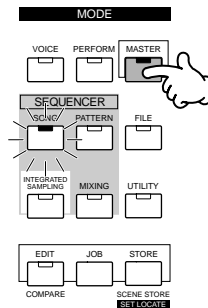
When the selected Master is set to the Voice mode :



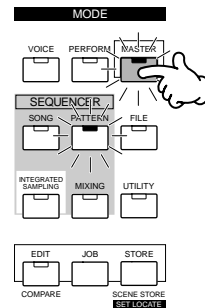
When the selected Master is set to the Performance mode :



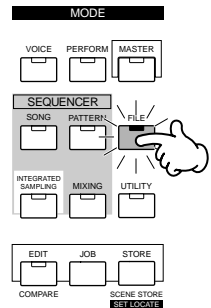
When the selected Master is set to the Song mode :



When the selected Master is set to the Pattern mode :



● File mode

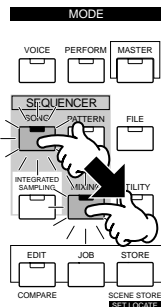


To select another mode, simply press the corresponding mode button.

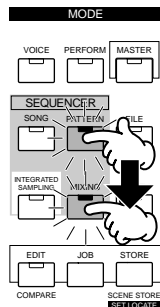
Mixing mode (in the Song/Pattern mode)

The two Sequencer modes, Song and Pattern, feature a special Mixing mode.

● Song Mixing mode



● Pattern Mixing mode

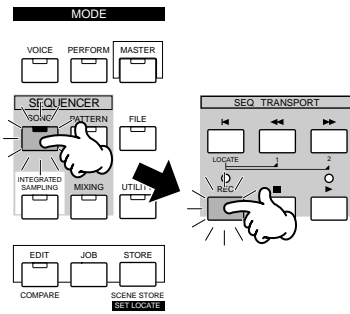


To exit from the File mode and select another mode, simply press the corresponding mode button. (The [EXIT] button cannot be used here.)

Record mode (in the Song/Pattern and Sampling mode)

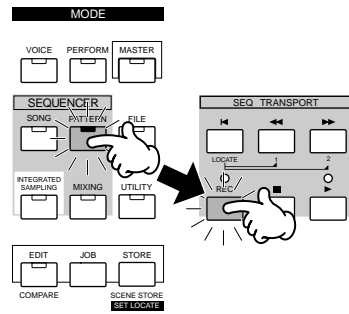
The MOTIF also features Record modes — one for sequencing in the Song and Pattern modes, and one for sample recording in the Sampling mode.

● Song Record mode



■ Press the [STOP] button to exit from Song Record mode to the Song Play mode.

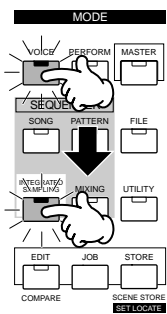
● Pattern Record mode



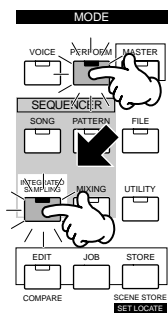
■ Press the [STOP] button to exit from the Pattern Record mode to the Pattern Play mode.

● Sampling Record mode

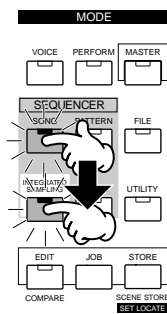
From the Voice mode



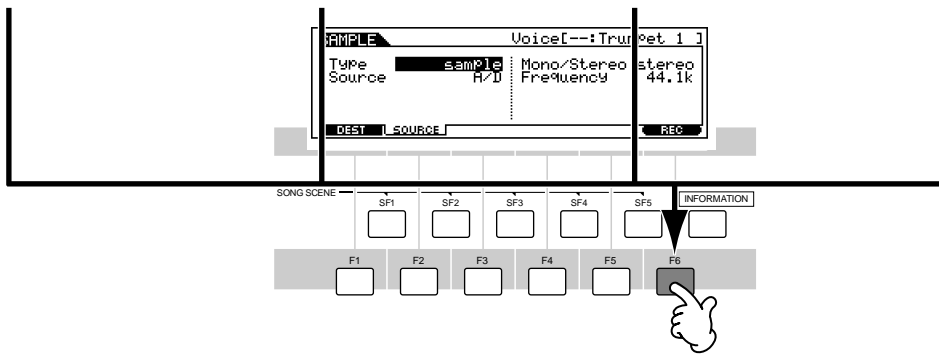
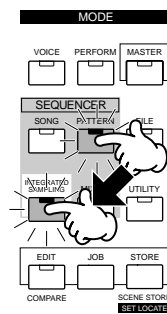
From the Performance mode



From the Song mode



From the Pattern mode

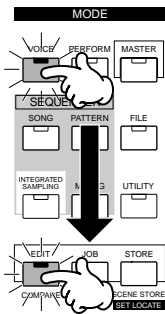


Press the [EXIT] button to exit from the Sampling Record mode.

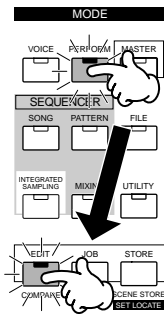
Edit mode

The four main modes (Voice/Performance/Song/Pattern), the Sampling mode and the Master mode described above all have their own specific Edit modes.

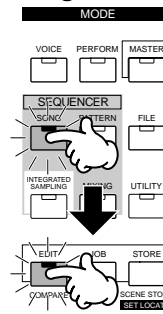
● Voice Edit mode



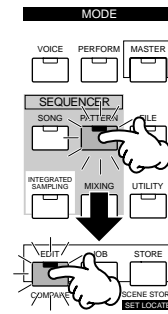
● Performance Edit mode



● Song Edit mode

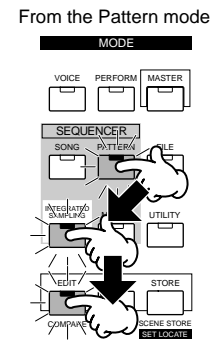
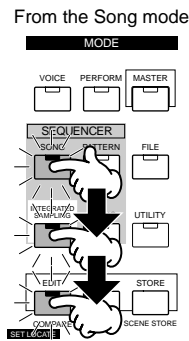
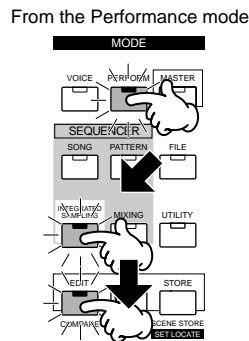
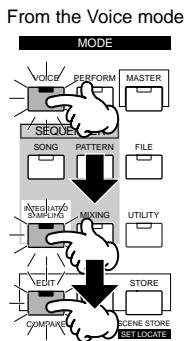


● Pattern Edit mode



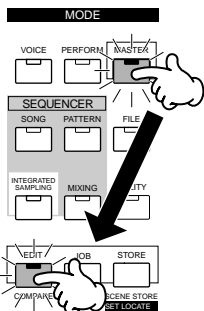
Press the [EXIT] button to exit from the Edit mode.

● Sampling Edit mode

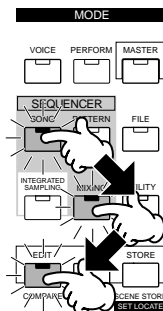


Press the [EXIT] button to exit from the Edit mode.

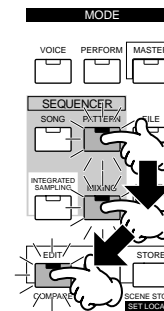
● Master Edit mode



● Song Mixing Edit mode

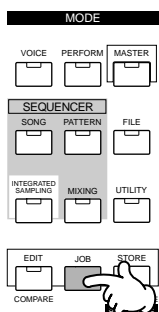


● Pattern Mixing Edit mode



Press the [EXIT] button to exit from the Edit mode.

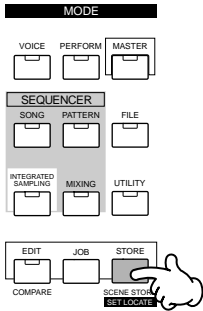
Job mode



Most of the modes described above — the main modes (Voice, Performance, Song, Pattern), the two sub-modes (Sampling and Utility), the Mixing mode (in Song and Pattern), and the Master mode — have their own specific Job modes.

To call up the Job mode, press the [JOB] button while one of the modes listed above is active. Since the [JOB] button does not have an indicator lamp, check the display to see whether the Job mode is selected or not.

Store mode

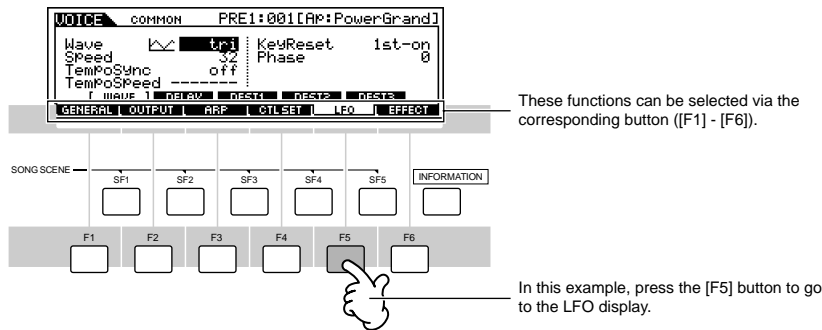


The Voice Play mode, Performance Play mode, Song Mixing mode, Pattern Mixing mode, and Master Play mode have their own specific Store modes. To call up the Store mode, press the [STORE] button while one of the modes listed above is active. Since the [STORE] button does not have an indicator lamp, check the display to see whether the Store mode is selected or not.

Selecting Functions and Parameters

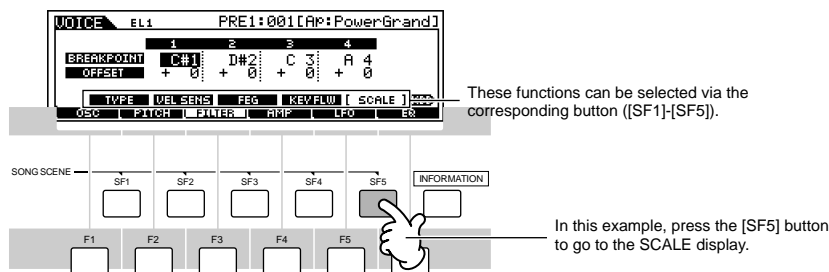
Each mode described above contains various displays, with various functions and parameters. To navigate your way through these displays and select a desired function, use the [F1] - [F6] buttons and the [SF1] - [SF5] buttons. When you select a mode, the available displays or menus appear directly above the buttons at the bottom of the display (as shown below).

Using the Function buttons [F1] - [F6]



Depending on the currently selected mode, up to six functions are available and can be called up with the [F1] - [F6] buttons. Keep in mind that the available functions differ depending on the selected mode.

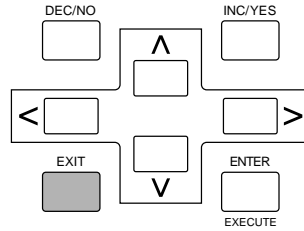
Using the Sub-Function buttons [SF1] - [SF5]



Depending on the currently selected mode, up to five functions (sub-functions) are available and can be called up with the [SF1] - [SF5] buttons. Keep in mind that the available functions differ depending on the selected mode. (Some displays may not have any sub-functions for these buttons.)

How to leave the current display

For most operations (especially editing and Job- or Store-related), pressing the [EXIT] button will let you leave the current display and return you to the next highest level or to the normal play mode display.

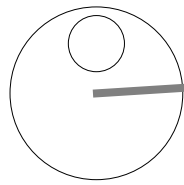


Display-based Controls

Basic Operation

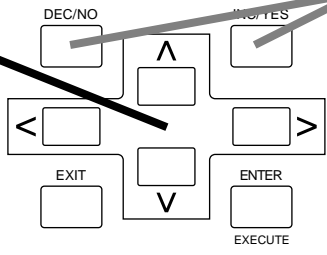
Data Entry

① Moving the cursor
Use these four buttons to navigate the display, moving the cursor around the various selectable items and parameters in the screen. When selected, the relevant item is highlighted (the cursor appears as a dark block with inverse characters).



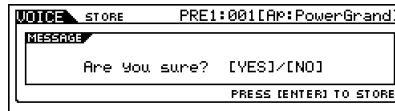
② Changing (editing) values
Rotating the data dial to the right (clockwise) increases the value, while rotating it to the left (counter-clockwise) decreases it.

For parameters with large value ranges, you can increase the value by 10 by simultaneously holding down the [INC/YES] button and pressing the [DEC/NO] button. To decrease by 10, do the opposite; simultaneously hold down the [DEC/NO] button and press the [INC/YES] button.



Confirmation Message

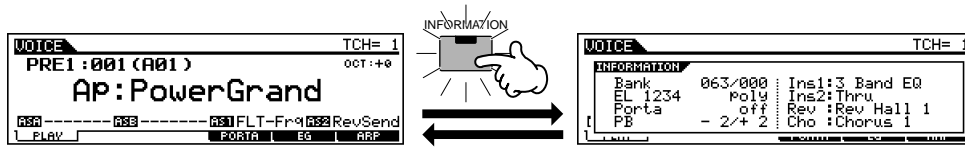
When you execute certain operations, such as those in the Job, Store, and File modes, the MOTIF shows a confirmation message. This lets you actually execute the operation or cancel it if desired.



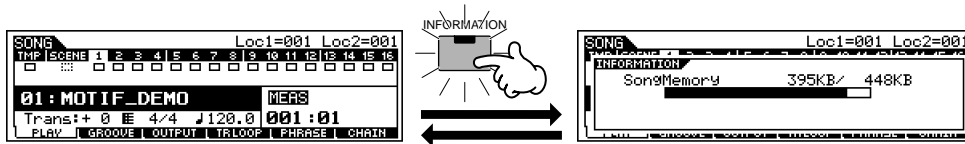
If a confirmation message (like the one illustrated above) appears, press the [INC/YES] button to execute the operation or press the [DEC/NO] button to cancel it.

Information Display

This convenient function lets you call up relevant details about the selected mode — simply by pressing the [INFORMATION] button. For example, when the Voice mode is active, you can quickly check information about which voice bank is selected, what Play mode (poly or mono) is being used, which effects are applied, and so on.



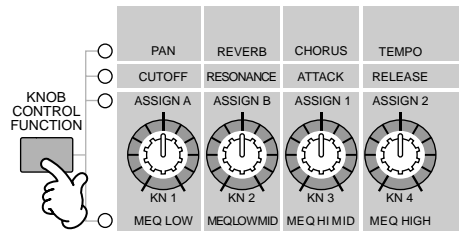
In the Song Play mode, you can instantly find out how much memory is being used and how much is left over for additional recording.



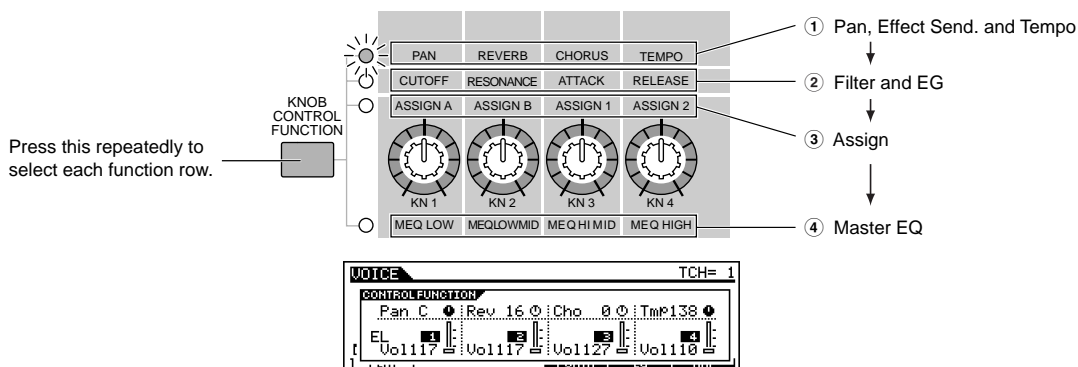
Control Knobs and Sliders

This extremely versatile and powerful section on the panel gives you instant, real-time control over the sound and certain functions of the MOTIF. For example, you can use these to shift the Pan position, adjust the Reverb or Chorus effect, change the Tempo of a song or pattern, tweak the EQ, perform dynamic filter sweeps, alter the Volume balance of the elements in a voice or the tracks of a song, and do many other things as well — all in real time, as you perform. The Knobs are also assignable to various functions, letting you control virtually any aspect of the sound or operation you desire (pages 254 and 256).

- Select the row of functions you wish to control by pressing the [KNOB CONTROL FUNCTION] button. The corresponding indicator lights, showing you which row is active. For example if you want to use the Knobs to control Pan, Reverb, Chorus and Tempo, press the [KNOB CONTROL FUNCTION] button (repeatedly if necessary) until the top indicator is lit.



- Turn the appropriate Knob ([KN1] - [KN4]) to adjust the desired function.

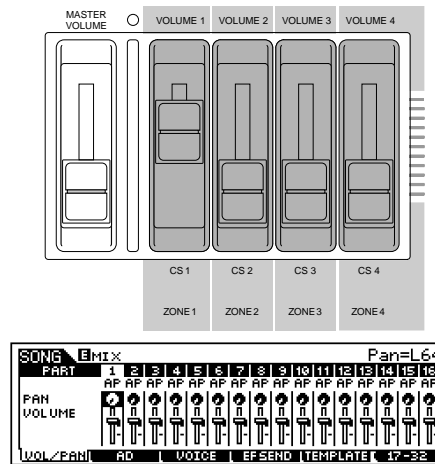


In this example display, the Pan, Effect Send and Tempo controls have been called up.

The available functions are shown at the top of the display, and the value changes as you turn the corresponding Knob. For example, to change the amount of Reverb (in the top row), turn Knob 2. To change the Pan position, turn Knob 1.

If the “Rev” knob in the display is dark, any tweaking you do to the Knob immediately affects the sound. However, if the knob in the display is light, turning the knob will not have any effect until you reach the current setting. Once you’ve adjusted the Knob to that setting point, the display knob turns dark, and you can tweak the sound.

3 Move the appropriate Sliders ([CS1] - [CS4]) as well.



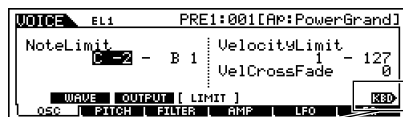
The Sliders are generally for controlling levels, but they have different functions depending on the selected mode. For example, in the Voice mode, they are used to adjust the levels of the four elements in a voice. In the Performance mode, they control the levels of the four parts. In the Song and Pattern modes, they are used to change the levels of the sixteen tracks — four at a time. (In the last case, you can select different groups of four by pressing the appropriate [NUMBER] button, [1] - [16].)

Please note that moving the slider will not have any effect until you reach the current setting.

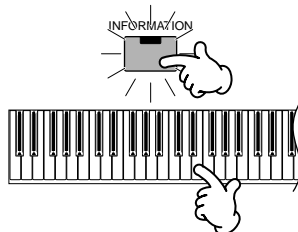
For more information on the Knobs and Sliders, see page 48.

Note (Key) settings

Several MOTIF parameters let you set a key range for a function — for example, in setting up a keyboard split — by specifying certain note values. You can use the [INC/YES] and [DEC/NO] buttons or data dial to set these parameters, or you can directly enter the values from the keyboard by pressing the appropriate keys (as shown below). In the example display here, element 1 of a voice is being edited.



When Note Limit is selected, the [KBD] mark appears, indicating that you can use the keyboard to set the value. Simultaneously hold down the [INFORMATION] button and press the appropriate key.



Naming

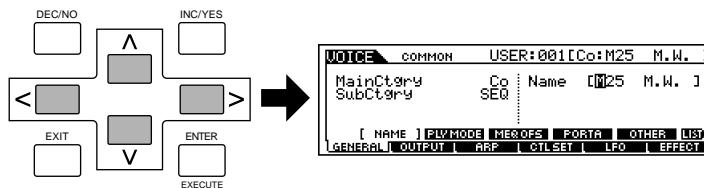
The MOTIF allows you to create your own original data such as voices, performances, songs, and styles. You can also freely name the data as desired.

The following data types can be named.

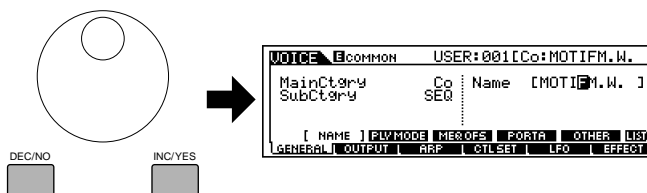
- User voices.....page 130
- User performancepage 166
- User songspage 204
- User stylespage 232
- User phrasespage 230
- User masters.....page 271
- User waveformpage 247
- Files saved to memory card or SCSI storage devicepage 267

The example below applies when naming a User voice (page 130).

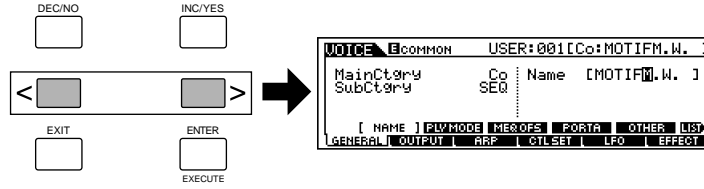
1 Move the cursor to the first position of the name by using the Cursor button.



2 Select a character by using the [INC/YES] button, [DEC/NO] button or the data dial.



3 Move the cursor to the next position of the name by using the Cursor button.



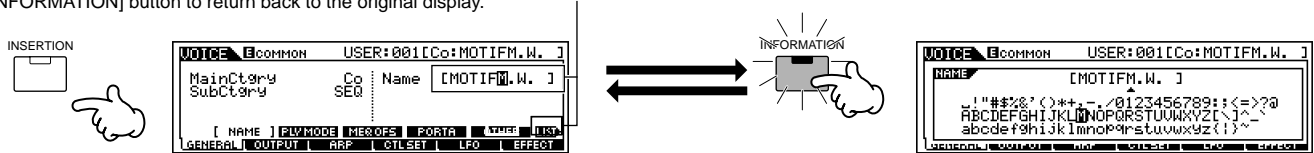
4 Enter the other characters as desired by repeating steps #1 - #3 above.

Using the Character List

In steps #2 and #3 above, you can use the special Character List, which shows all the available characters, and makes it easier to select the characters.

Press and hold down the [INFORMATION] button to display the pop-up Character List. To select a character from the list, keep holding down the [INFORMATION] button and use the [INC/YES] and [DEC/NO] buttons or data dial.

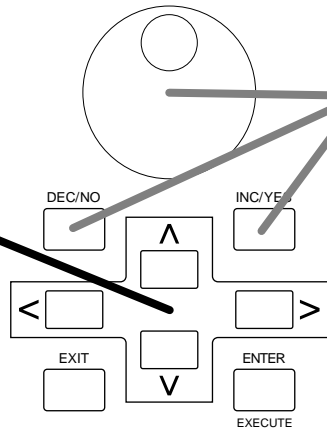
When the cursor is located at the Name, this [LIST] icon appears and you can call up the Character List display by holding the [INFORMATION] button. Release the [INFORMATION] button to return back to the original display.



While holding the [INFORMATION] button....

① Move the cursor to the desired position.

② Select a character by using the [INC/YES] button, [DEC/NO] button or the data dial.



Basic Operation

Quick Start Guide

This helpful and informative section of the manual takes you on a guided tour of the MOTIF, explaining virtually all of the important functions by example and giving you important, hands-on experience as you actually start using the instrument. Read through these practical instructions carefully — this is the best way to get to know the sophisticated functions of the MOTIF and to discover just how much it has to offer. Each set of instructions gives you the basic tools you need to master the instrument. If you're in need of more information or details, go straight to the Reference section — the relevant page number is indicated here at the beginning of each topic.

Playing the Demos

Here's the best place to start your explorations of the MOTIF. The Song and Master Demos have been specially programmed so you can hear just how amazing the sounds are, and find out just how powerful the instrument really is.

Auto Demo Load

Reference (page 252)

The MOTIF features special Demo data (Song and Master programs) which is stored to ROM and can be loaded to DRAM by using the Auto Demo Load function. When this parameter is set to "on," the Demo song data is automatically loaded when the power is turned on. The Auto Demo Load parameter is set to off when the MOTIF is shipped from the factory. (Under normal playing circumstances, you'll want to use the full memory of the instrument and won't want to have the Demo programs automatically load.) Before you can play the Demos, you'll need to turn this function on (as described below).

1 Enter the Utility mode and call up the GENERAL display.

2 Call up the OTHER display.

3 Move the cursor to "AutoDemoLoad."

4 Set "AutoDemoLoad" to ON.

5 Turn the power off by pressing the [POWER] switch.

6 Turn the power on again by pressing the [POWER] switch.

The Demo programs are now loaded to the MOTIF, and you can try them out in the instructions that follow.

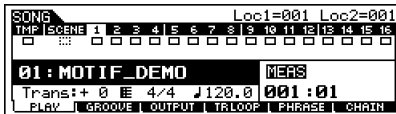
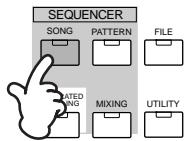
Playing the Song Demo

A variety of Demo songs have been programmed to the MOTIF, showcasing its dynamic voices and giving you a taste of the sophisticated sequencing functions inside.

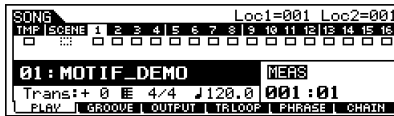
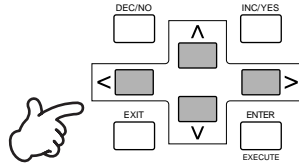
1 Turn the power ON.



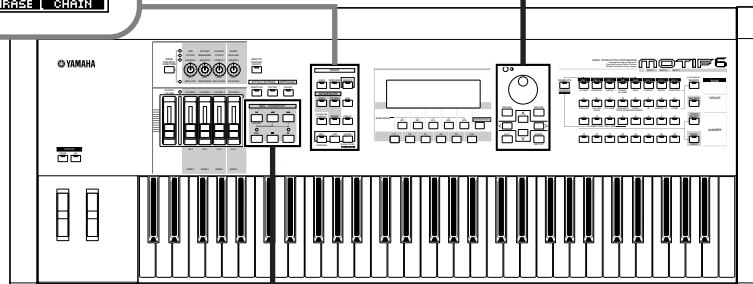
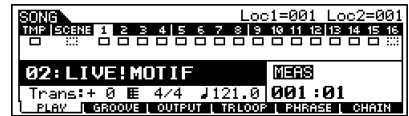
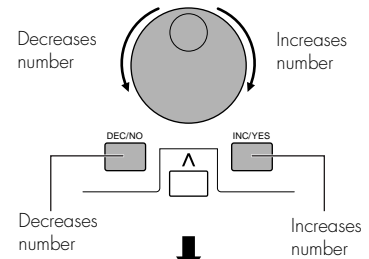
2 Press the [SONG] mode button to enter the Song mode.



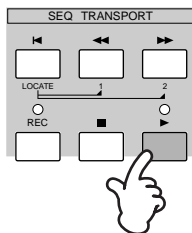
3 If it isn't currently highlighted, move the cursor to the Song number/name.



4 Select a song.

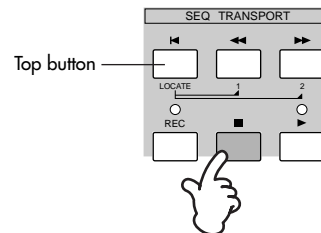


5 Start the selected song.



When playback of the selected song is finished, the song automatically stops.

6 Stop song playback manually, if you want.



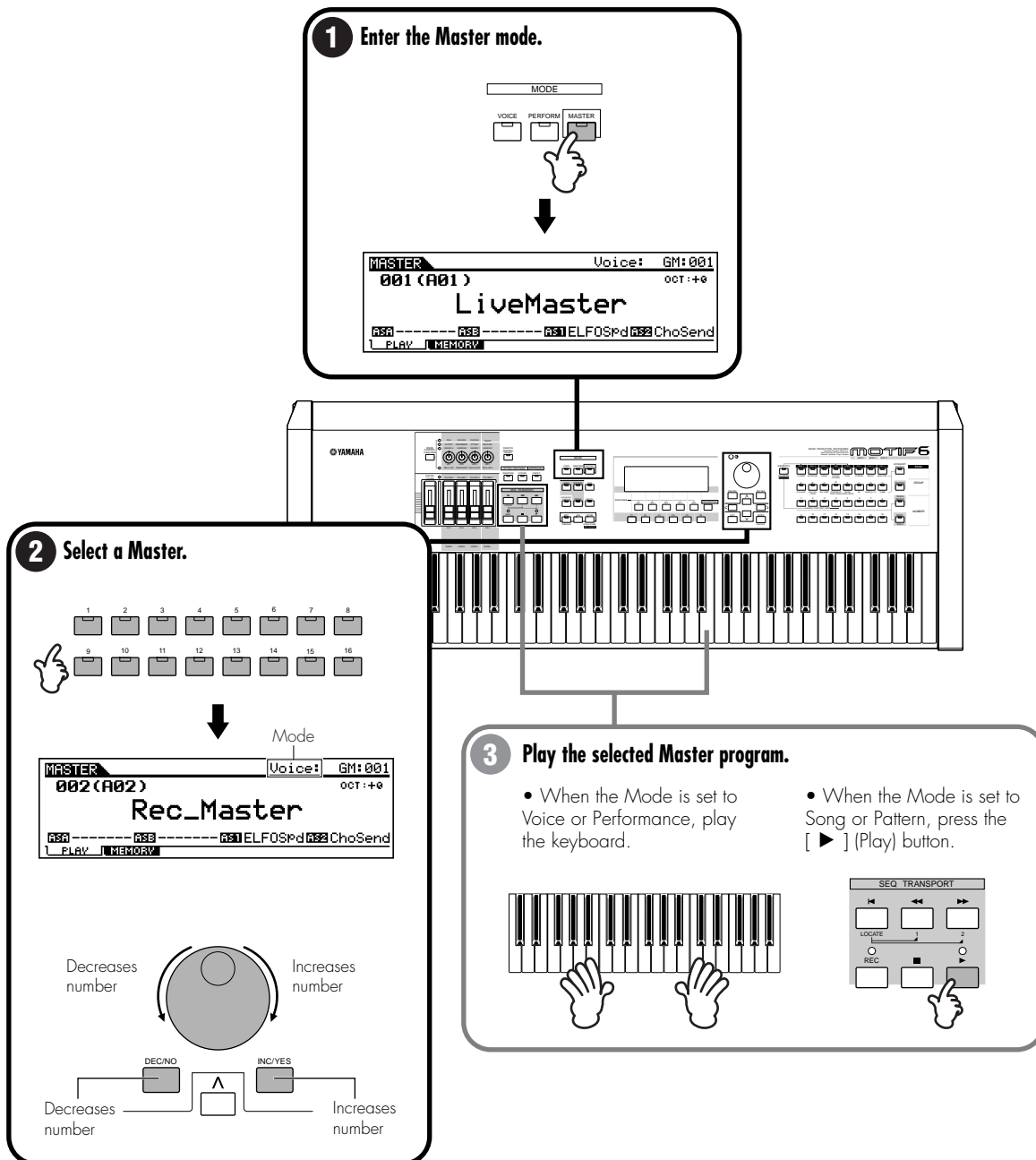
You can stop the song anytime during playback by pressing the [■] button. This pauses the song at the current position. To resume playback of the song from that point, press the [▶] again.

To instantly return to the beginning of the song, press the [◀] (Top) button. For details about song control, see page 14.

Playing the Master Demo

The MOTIF has so many powerful features, functions, and modes, it may seem difficult to understand them all and grasp how they work together. One good place to start learning about the various pieces in the MOTIF puzzle is the Master mode.

Master programs are special setups that let you work across the mode boundaries of the MOTIF (Voice, Performance, Song, and Pattern), and let you instantly select a desired configuration for the entire instrument. We've programmed a variety of Master programs to show you how this powerful feature can be used. Try some of these out now. (You'll be setting up your own Master programs later in this Guide.)



Playing Voices

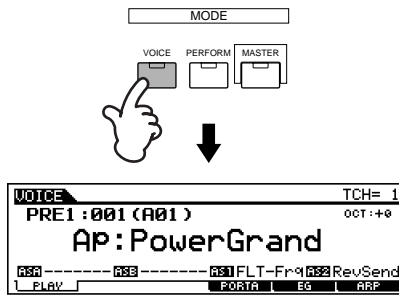
Reference (page 124)

The Voice Play mode is where you select and play the instrument sounds (voices) of the MOTIF. Thanks to an amazing 85MB of wave ROM and over 700 voices to choose from (even more when you install optional Plug-in boards!), the MOTIF has just about any sound you'll ever need, no matter what kind of music you create — from luscious piano, strings, and other acoustic instruments to cutting-edge synth, dance, and electronica sounds. Plus, with the full 62-note polyphony, you can play fat chords and arpeggios — and sustain them without ever having to worry about the sound cutting out. The MOTIF provides several different voice banks: Preset 1 - 3, GM Preset, User, and Plug-in 1 - 3 (when optional Plug-in boards are installed). Select a bank and try out some of these different voices right now.

Selecting a voice

Quick Start Guide

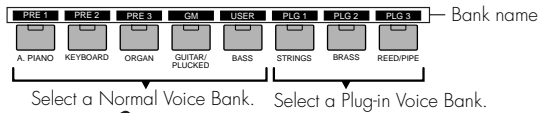
1 Enter the Voice Play mode.



When the Voice Play mode is active, the currently selected voice is shown in huge letters — so you can easily check which voice you're about to play.

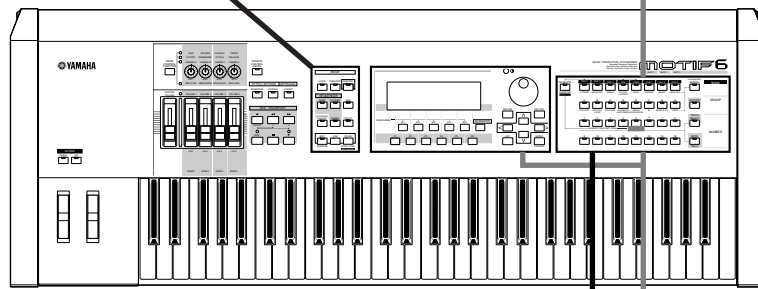
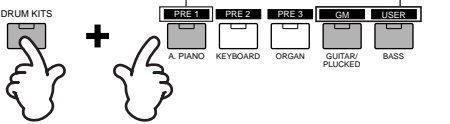
2 Select a Voice Bank.

• Normal Voice



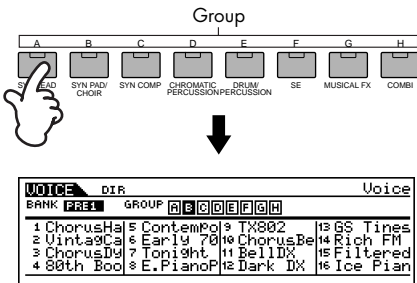
NOTE When shipped from the factory, the MOTIF contains a full set of specially programmed User voices in the User bank. Naturally, you can edit these and overwrite them if you want. You can also restore them to the original factory set by using the Utility Job (page 260). For details about Voice Banks and Groups, see page 124.

• Drum Voice

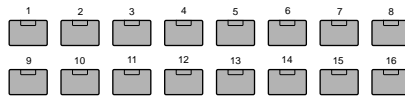


3 Select a Voice Group.

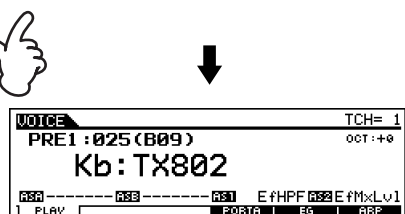
Voices in each Bank are divided into Groups [A] ~ [H]. Select a Group to display the voices that belong to the selected Group.



4 Select a Voice number.



Decreases number (clockwise arrow) Increases number (counter-clockwise arrow)



Using the Category Search function

Reference (page 126)

The MOTIF features a powerful Category Search function that gives you quick access to the sounds you want, irrespective of their bank locations. Simply select a voice category, such as A. PIANO or SYN LEAD, and you can browse through all related voices one by one — and audition each of them, too. Plus, you can use the special Favorites category to store the voices you use most.

1 Turn the Category Search function on by pressing the [CATEGORY SEARCH] button.

NOTE Press the [CATEGORY SEARCH] button again to turn this function off.

2 Select a Category.

- **Select a Category.**
Press the Category buttons to display the Category name and the voice list. The first voice in this Category is selected.
- **Select a Sub Category**
All Categories are divided into two or three Sub Categories for further ease in selection. The Sub Category names are displayed at the bottom of the Category Search display. Press the [F1] - [F3] buttons to select the first voice in the corresponding Sub Category.

3 Select a voice.

Step through the available voices by using the data dial. You can also use the [INC/YES] and [DEC/NO] buttons, or use the cursor [▲]/[▼] buttons.

Favorite Category

Use this convenient function to store all your favorite, often-used voices in a single, easy-to-access location — and call them up by pressing the [FAVORITIES] button. Select any voice you want, from any desired category, and enter each to the Favorites Category. In this way, you can go directly to all the voices you use the most, without having to hop around other Categories — a great aid when playing live.

Select the desired Category, then move the cursor to your favorite voice in the Category list, and press the [F5] button to checkmark the the box next to the voice name. (You can un-checkmark it by pressing the [F5] button again.) Go on to other Categories and continue registering your favorites. After you've checkmarked all the voices you want, press the [DRUMKIT/FAVORITE] button to store them to the Favorites Category. All the voices you've checkmarked — and only those voices — will be shown in the list. To exit from the Favorites Category, simply press the [DRUMKIT/FAVORITE] button again.

Pressing this toggles between the two settings:
 Checkmark on
 Checkmark off

Keyboard Octave (MOTIF6/MOTIF7)

Sometimes when playing a voice, you may wish to play in a lower or higher pitch range. For example, you may want to shift the pitch down lower to get extra bass notes, or shift up to get higher notes for leads and solos. The Octave Up/Down controls let you do this quickly and easily.

Each time you press the [OCTAVE UP] button on the panel, the overall pitch of the voice goes up by one octave. Likewise, each press of the [OCTAVE DOWN] button takes the pitch down by one octave. The range is from -3 to +3, with 0 being standard pitch. When this is set to Octave Up, the lamp of the [OCTAVE UP] button lights, and when it is set to Octave Down, the [OCTAVE DOWN] button's lamp lights. The current octave setting is shown at the top right of the display. You can instantly restore standard pitch (0) by simultaneously pressing both the [OCTAVE UP] button and the [OCTAVE DOWN] button (both lamps turn off).



NOTE Octave Up/Down works in conjunction with with the TUNE setting (in Voice Edit, page 138) and the Note Shift setting (in Utility Mode, page 250). This means that if the the pitch has already been shifted up or down with those settings, you may not be able to use Octave Up/Down to shift the full three octaves.

NOTE If using Octave Up/Down results in pitches outside the note range of the voice (C-2 - G8), the invalid pitches are sounded at the previous octave (down or up).

NOTE This function can be used also in the Performance mode or Master mode.

Editing Voices

The Voice Play mode not only lets you play voices, it lets you perform a variety of basic, yet powerful editing operations on them as well. For example, you can change the EG settings to give the voice a softer or harder attack, or change the release to make it sustain. You can also adjust similar settings for the filter, and change the tone of the voice. Moreover, a special set of Control knobs on the panel let you tweak the sound — including pan, EG, effects, filter, and more — in real time as you play. Naturally, you can also store your newly created voice for future recall (page 86).

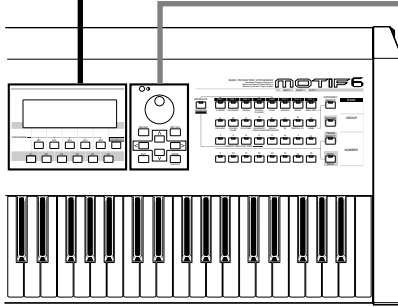
Quick Voice editing

Reference (page 127)

1 Select the desired menu.

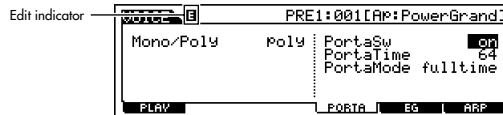
2 Set the value of each parameter.

Move the cursor to the desired parameter and change the value by using the [INC/YES] and [DEC/NO] buttons or the data dial.



The [E] Indicator

If you alter any parameters in the Voice Play mode, the [E] indicator will appear in the top left of the display. This indicates that the current voice has been modified but not yet stored.



F4

PORTA (Portamento) display

From this display you can select monophonic or polyphonic playback and set the Portamento parameters. Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next.

F5

EG (Envelope Generator) display

• **AEG (Amplitude Envelope Generator)**
The AEG controls how the volume of the voice changes in time, from the instant you press a key to after you release it. For example, setting a small Attack value results in an instantaneous, sharp sound when you press a key.

• **FEG (Filter Envelope Generator)**
The FEG controls how the tonal quality of the voice changes in time, as affected by the filter. Here, you can also set the Cutoff frequency and Resonance for the filter.

Basic Structure (page 46)
Cutoff Frequency (page 46)
Resonance (page 46)

F6

ARP (Arpeggio) display

The basic Arpeggio parameters (e.g., type, tempo) are provided in this display.

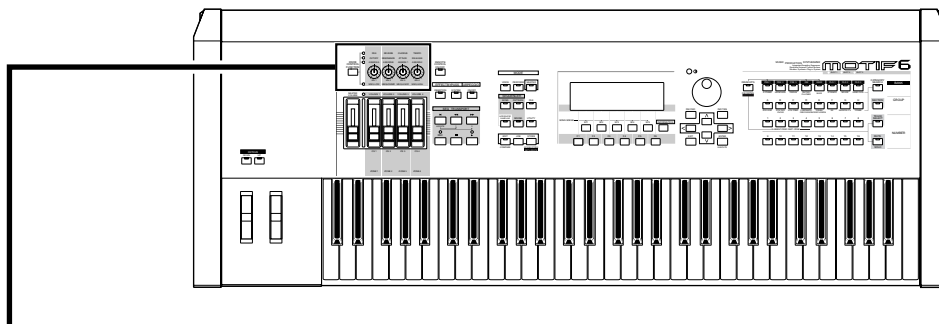
Voice editing with the Control knobs

Reference (page 132)

These knobs let you change various aspects of the Voice's sound in real time — while you play. Turn a knob to the right to increase the value, and left to decrease it. If you want to keep the edits you make, you can store them to a new voice (page 86).

NOTE Each voice of the MOTIF has been programmed with a default or standard parameter value. Using these knobs offsets the default or standard parameter value. Regardless of the size of the offset, the minimum and maximum limits cannot be exceeded.

NOTE Using these knobs in the Performance mode affects the currently selected performance, and not the voices themselves.

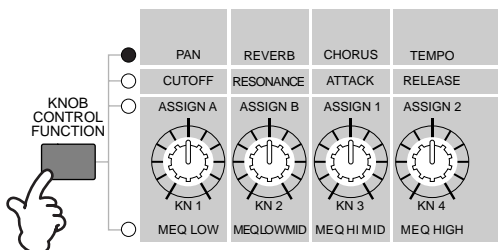


Selecting the controllable functions

Functions assigned to each knob can be selected among four types as illustrated below.

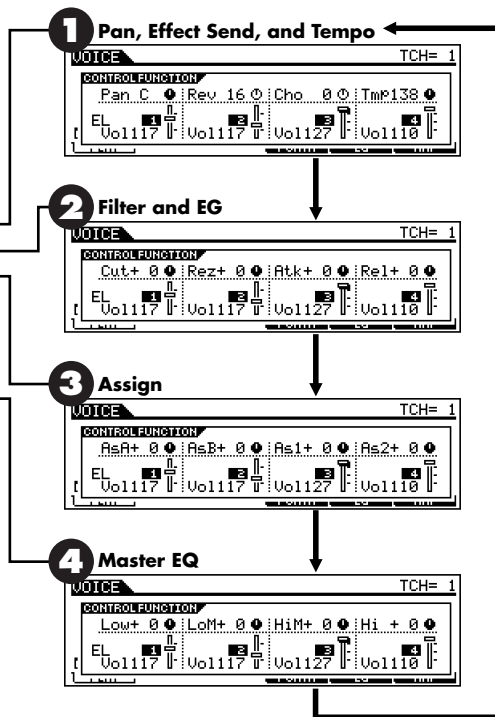
Use the [KNOB CONTROL FUNCTION] button to change the parameter set for the knobs. The corresponding LED lights to indicate which group of parameters are active and the Control of the available functions appear in the LCD display as shown below.

Press the [EXIT] button to go back to the original display.



Press this repeatedly to select each function row.

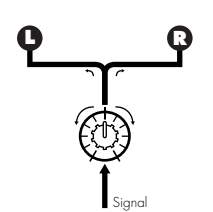
NOTE If the "Rev" knob in the display is dark, any tweaking you do to the Knob immediately affects the sound. However, if the knob in the display is light, turning the knob will not have any effect until you reach the current setting. Once you've adjusted the Knob to that setting point, the display knob turns dark, and you can tweak the sound.



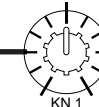
About each assigned function

1 Pan, Effect Send, and Tempo

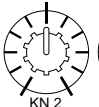
PAN
Determines the stereo pan position of the voice.



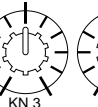
PAN




REVERB



CHORUS



TEMPO



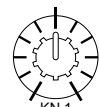
TEMPO
Determines the tempo of the Arpeggio assigned to the currently selected voice. In the Song/Pattern/Arpeggio mode, this determines the tempo of the selected song or pattern.

REVERB
Determines the amount of Reverb effect that is applied to the voice.

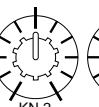
CHORUS
Determines the amount of Chorus effect that is applied to the voice.

2 Filter and EG

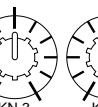
CUTOFF




RESONANCE



ATTACK



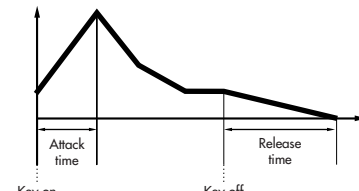
RELEASE



CUTOFF
Determines the Filter cutoff frequency.

RESONANCE
Boosts the level of the signal in the area of the cutoff frequency. Try using the Cutoff and Resonance controls above in tandem. For example, set Resonance to a certain level, then sweep the Cutoff control.

ATTACK
Determines the attack time of the sound. For example, you can adjust a strings voice so that the sound gradually swells in volume by setting a slow attack time — simply turn the [ATTACK] knob to the right. For a more percussive attack, turn the knob to the left.

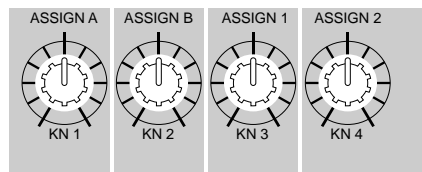


RELEASE
Determines the release time of the sound. Turning the knob to the right sets a long release time and (depending on the selected voice) lets the sound sustain after the key is released. To produce a sharp release, in which the sound abruptly cuts off, set a short release time.

NOTE When the Drum voice is selected, this is used as Decay time.

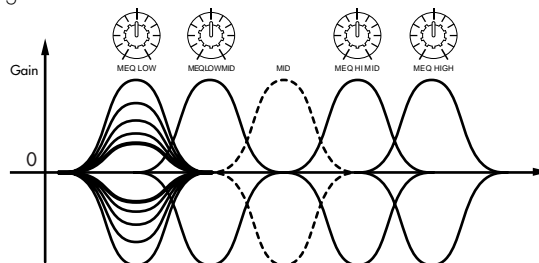
3 Assign

These knobs can be assigned to a variety of functions, letting you create your own custom set of real-time controls. For details about Knobs A/B, see page 256. For details about Knobs 1/2, see page 254.



4 Master EQ

Adjusts the master (global) EQ settings for the entire voice. The settings made here are applied as offsets to the EQ settings (with the exception of "MID") in the Utility mode, page 253.



Storing edited Voices

Reference (page 160)

Once you've edited a voice, you can store it to the internal memory (SRAM). Up to 128 Normal Voices and up to 16 Drum Voices can be stored.

NOTE For details about memory structure, see page 63.

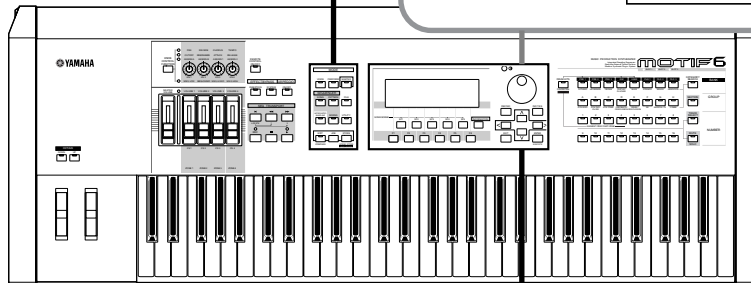
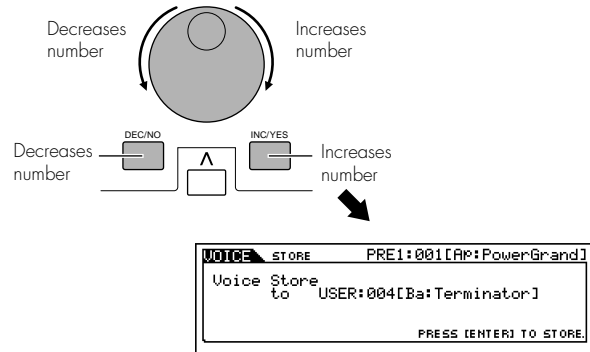
CAUTION

When you execute this, the settings for the destination memory will be overwritten. Important data should always be backed up to computer, a separate Memory Card or some other storage device. (See page 64.)

1 Press the [STORE] button in the Voice mode.



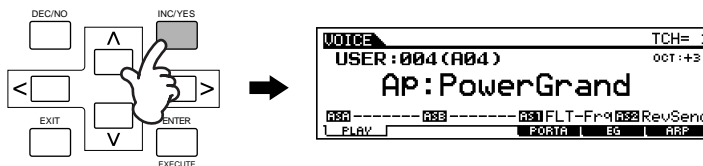
2 Select the destination Voice Memory by using the [INC/YES] and [DEC/NO] buttons or the data dial.



3 Press the [ENTER] button. (The display prompts you for confirmation.)



4 To execute the Store operation, press the [INC/YES] button. After the voice has been stored, a "Completed" message appears and operation returns to the original display.



NOTE To cancel the Store operation, press the [DEC/NO] button.

CAUTION

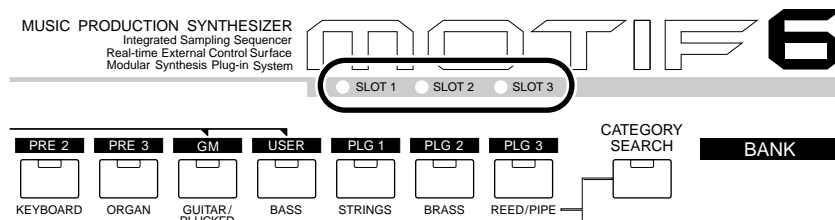
For Store operations that take longer to process, you will see the message "Executing..." during processing. If you turn off the power of the MOTIF while this message is displayed, you risk corrupting your data.

A wider variety of detailed editing controls is also available in the Voice Edit mode.

About Plug-in Voices

Basic Structure (page 34)

Plug-in Boards give you an enormous amount of additional sonic flexibility and power. When installed, they work seamlessly and transparently within the system of the MOTIF — meaning that you can use their sounds and functions just as if they were built right into the MOTIF at the factory. Up to three Plug-in boards can be installed to the MOTIF. If the Plug-in Board has been correctly installed, the corresponding SLOT lamp will light, the voice data appropriate for the installed board is set up automatically as Plug-in voices and you can select the Plug-in bank as well as the built-in Voice bank.



The Plug-in voices can be edited via the MOTIF's panel operation in much the same way as User voices. After editing, up to 64 Plug-in voices for each Plug-in board can be stored.

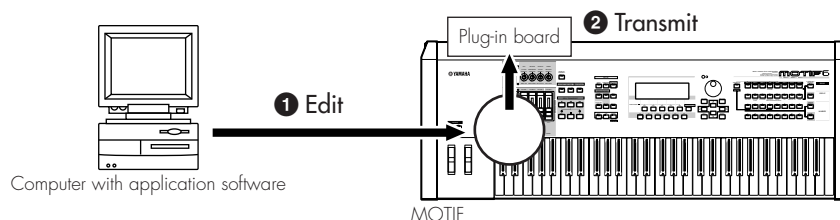
Editing and saving Board voices

Reference (page 159)

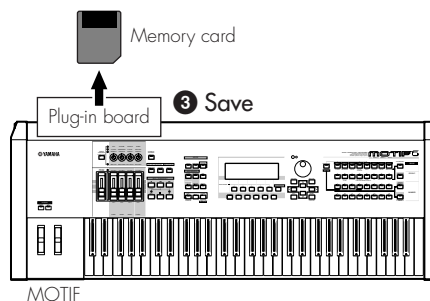
Included among the Board voices is a special set of voices — called Board Custom voices — which can be edited by a computer connected to the MOTIF, using special editing software included with the Plug-in board.

Because the Plug-in boards do not have SRAM and the edited voice data will be lost when turning the power off, the edited Board Custom voice data should be saved to the memory card or the SCSI device connected to the MOTIF. The Board Custom voice data saved to the memory card or SCSI device can be loaded automatically when turning the power on by using the Auto Load function.

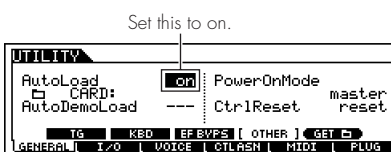
- ❶ Edit the Board voice by using the Voice Editor.
- ❷ Transmit the edited data to the memory (DRAM) on the Plug-in board.



- ❸ Save the data in the memory (DRAM) to the memory card.



- ❹ Set Auto Load to on in the Utility mode (page 252).



- ❺ When turning the power on next time, the Board Custom voice data saved to the memory card is automatically loaded to the memory on the Plug-in board.

Playing Performances

Basic Structure (page 42) - Reference (page 162)

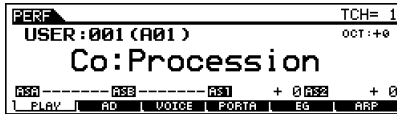
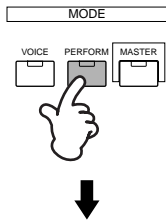
In the Performance mode, you can select and play individual User performances.

In a performance, you can mix several different voices together in a layer, or split them across the keyboard, or even set up a combination layer/split. Each Performance can contain up to four different Parts.

NOTE For details about the performances and their memory (bank) structure, see page 42.

Selecting a Performance

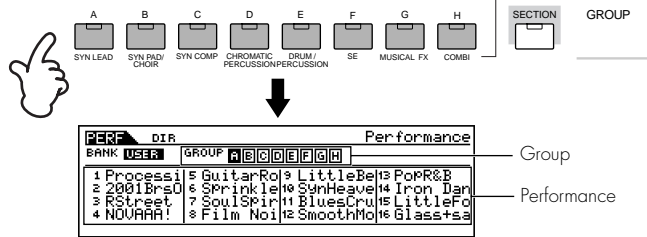
1 Enter the Performance Play mode.



When the Performance Play mode is active, the currently selected performance is shown in huge letters — so you can easily check which performance you're about to play.

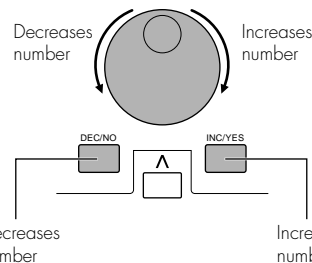
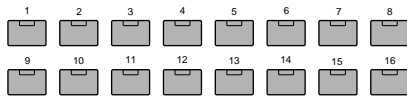
2 Select a Performance Group.

Performances in each Bank are divided into Groups A~H. Select a Group to display the performances that belong to the selected Group.



NOTE All performances are stored to a single bank, so you need not select a bank here.

3 Select a Performance number.



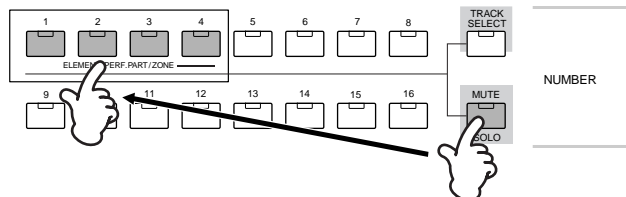
4 Play the keyboard.

NOTE The Category Search function and Keyboard Octave function can be used also in the Performance Play mode in the same way as in the Voice Play mode.

Performance Part on/off

Each performance can contain a maximum of four parts, selected from a total of seven — internal Parts 1 - 4 and Plug-in Parts 1 - 3.

- 1 Press the [MUTE] button so that its indicator lights.
- 2 Press any of the [1] - [4] buttons you wish to mute. The part corresponding to the unlit indicator is muted.
- 3 Press the [MUTE] button again so that its indicator goes out.

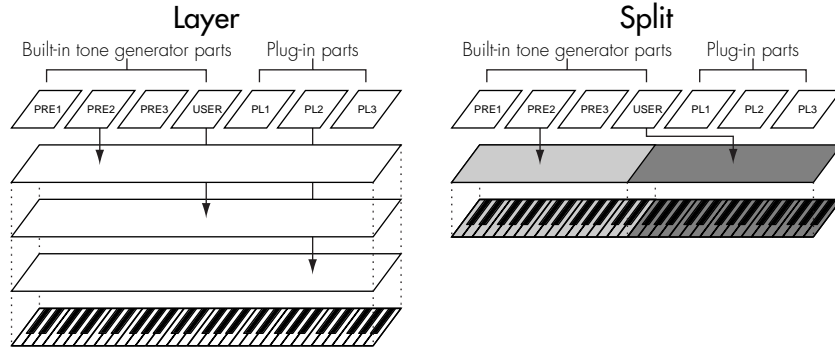


Editing Performances (Layer/Split)

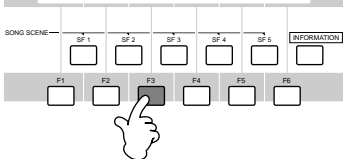
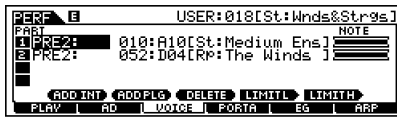
Basic Structure (page 45) - Reference (page 170)

Performances can be made up of a maximum of four parts (voices), selected from the internal tone generator Parts 1 - 4 and Plug-in board Parts 1 - 3.

You can create a performance by layering several voices together, and by assigning different voices to separate ranges of the keyboard. You can then store up to 128 of your original, edited performances to internal User memory.

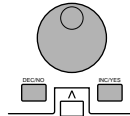


1 Call up the VOICE display by pressing the [F3] button in the Performance Play mode.



2 Assign the desired voice to each part.

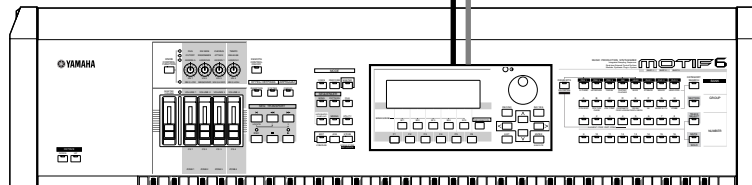
Move the cursor to the desired part and select a voice by pressing the [F1] or [F2] button.



Assign the built-in voice to the selected part.

Assign the Plug-in voice to the selected part.

Delete the voice assignment of the selected part.

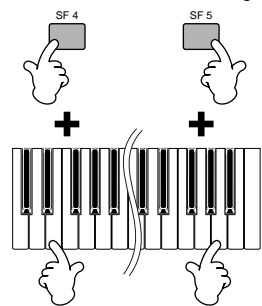


3 Specify the note range of each part, as required.

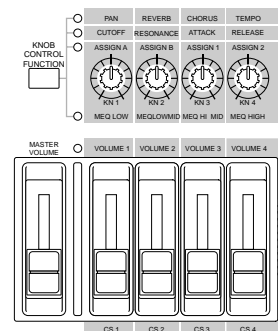
You can set the lowest note of the range over which the voice of the selected part sounds by pressing the desired key while holding the [SF4] button. To set the highest note of the range, press the desired key while holding the [SF5] button. This lets you create a split keyboard, with up to four different parts (voices) sounding in four different ranges. You can also overlap parts to create layers.



Note Limit Low Note Limit High



4 Change the volume of each part and adjust the relative balance among the four parts by using the Control sliders.



Storing the edited Performance

Reference (page 176)

Once you've edited a performance, you can store it to the internal memory (SRAM). Up to 128 performances can be stored.

NOTE For details about memory structure, see page 63.

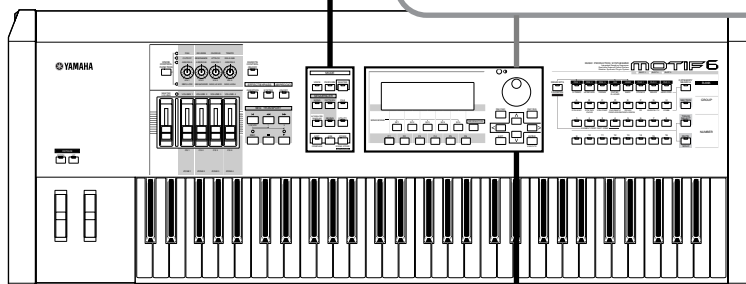
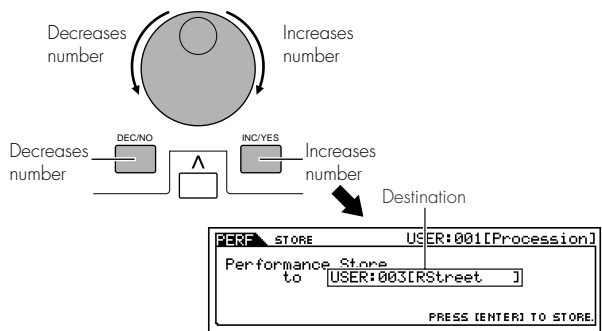
CAUTION

When you execute this, the settings for the destination memory will be overwritten. Important data should always be backed up to computer, a separate Memory Card or some other storage device. (See page 97.)

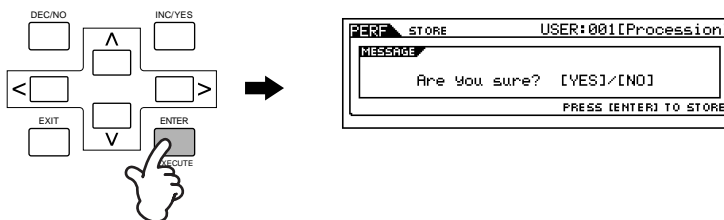
1 Press the [STORE] button in the Performance mode.



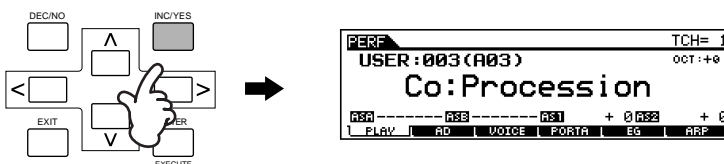
2 Select the destination Voice Memory by using the [INC/YES] and [DEC/NO] buttons or the data dial.



3 Press the [ENTER] button. (The display prompts you for confirmation.)



4 To execute the Store operation, press the [INC/YES] button. After the voice has been stored, a "Completed" message appears and operation returns to the original display.



NOTE To cancel the Store operation, press the [DEC/NO] button.

CAUTION

For Store operations that take longer to process, you will see the message "Executing..." during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

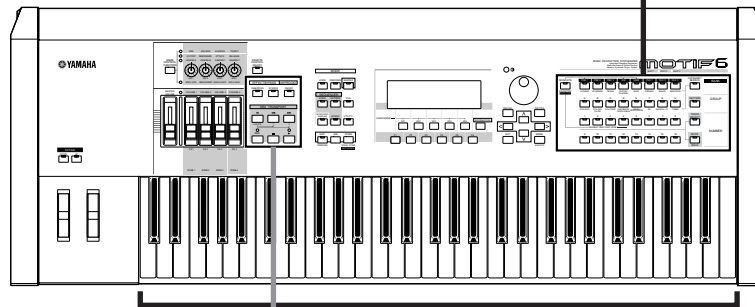
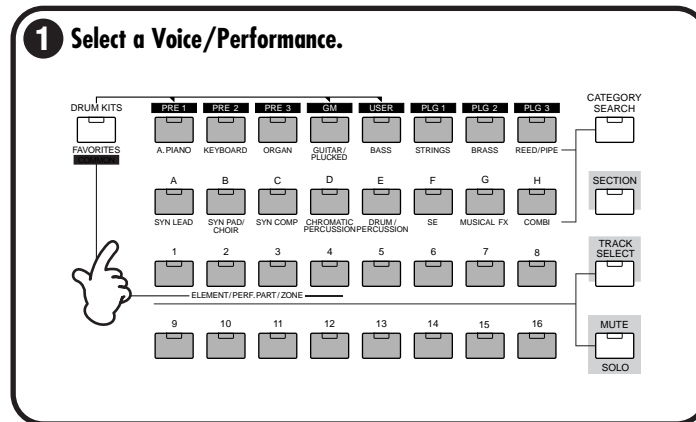
The Portamento, EG (Envelope Generator), and Arpeggio parameters can be edited by calling up the corresponding display via the [F4] - [F6] buttons in the same way as in the Voice mode. A wider variety of detailed editing controls is also available in the Performance Edit mode. See page 165.

Using the Arpeggio function

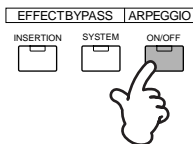
Basic Structure (page 55) - Reference (pages 128, 165)

The MOTIF features a powerful and highly versatile arpeggiator that lets you automatically trigger preset arpeggios, phrases, rhythmic sequences and special “human” patterns — depending on the keys you play, or even the velocity with which you play them. You can assign the desired Arpeggio type to each voice or performance, and adjust the tempo in real time as the Arpeggio plays. In the Song and Pattern modes, you can assign desired Arpeggio types to each Mixing setup, for use in songs and patterns.

Arpeggio playback



2 Turn the Arpeggio on by pressing the ARPEGGIO [ON/OFF] button.



NOTE When you select a voice or performance for which the Arpeggio Switch is set to on, the ARPEGGIO [ON/OFF] button is automatically turned on.

NOTE The on/off status of the ARPEGGIO [ON/OFF] button can be stored to each voice, performance, or Mixing setup.

3 Play the keyboard.

While holding the key(s), the Arpeggio is played back according to the played note, Arpeggio type, tempo, note limit settings, and so on.

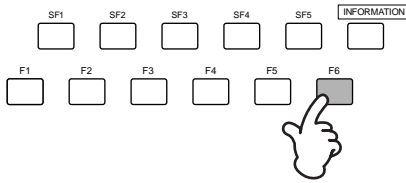
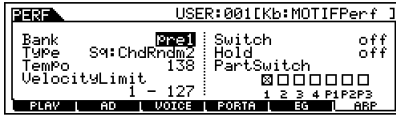
NOTE In the Voice Play mode, the Arpeggio is played back via the selected voice.

NOTE In the Performance/Song Mixing/Pattern Mixing mode, the Arpeggio is played back via the voice assigned to the selected part when the Arpeggio Switch of the selected part is set to on.

Arpeggio Type, Tempo, and Limit

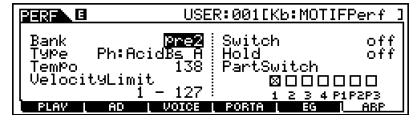
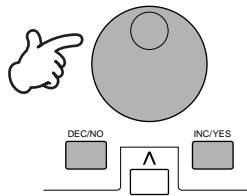
A variety of Arpeggio types are provided with the MOTIF. You can change the tempo of Arpeggio as desired. The Arpeggio function is available in all modes. The explanation below applies to the Performance Play mode.

- 1** Call up the ARP (Arpeggio) display by pressing the [F6] button in the Performance Play mode.



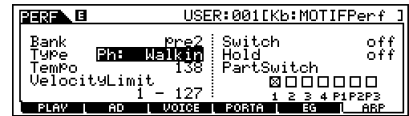
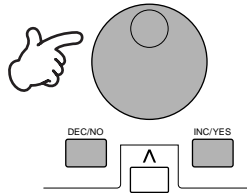
- 2** Select an Arpeggio Bank.

Move the cursor to the Bank parameter and select.



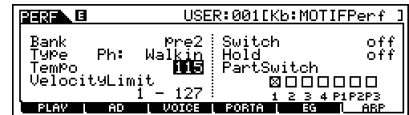
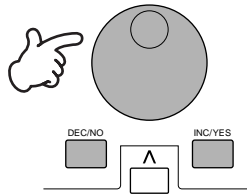
- 3** Select an Arpeggio Type.

Move the cursor to the Type parameter and select.

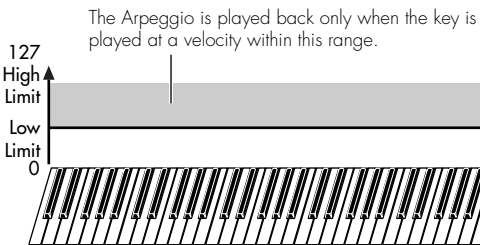
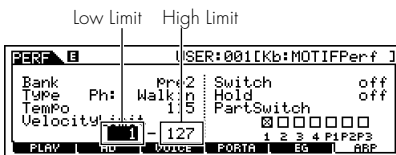


- 4** Set the Tempo for Arpeggio playback.

Move the cursor to the Tempo parameter and set.

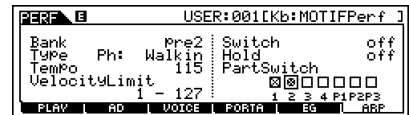


- 5** Set the Velocity Limit for Arpeggio playback. Move the cursor to the Velocity Limit parameter and set.



- 6** Set the Arpeggio part switch.

You can set the Arpeggio playback on or off for each part. Move the cursor to the checkbox of the desired part and checkmark the box to on.



- 7** Store the Arpeggio settings to the desired User Performance.

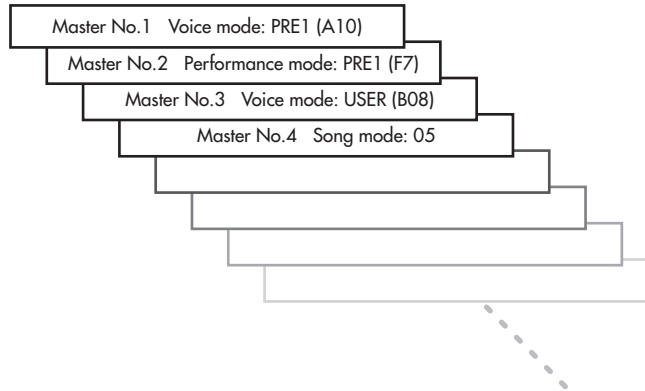
The Arpeggio settings can be stored to a User Voice, a User Performance, or a Song/Pattern Mixing setup.



Using as a Master Keyboard

Basic Structure (page 56) - Reference (page 268)

The MOTIF is loaded with such a wealth of different features, functions and operations, you may find it difficult to locate and call up the particular feature you need. This is where the Master function comes in handy. You can use it to memorize the operations you use most often in each mode, and call them up instantly anytime you need them with a single button press. The MOTIF has space for a total of 128 of your own User Master settings.

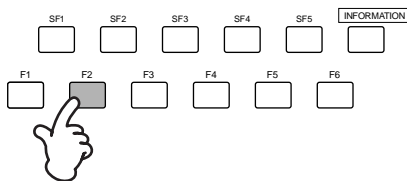
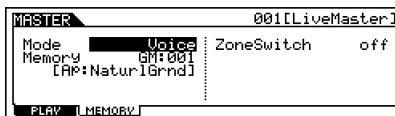


Memorize to a Master

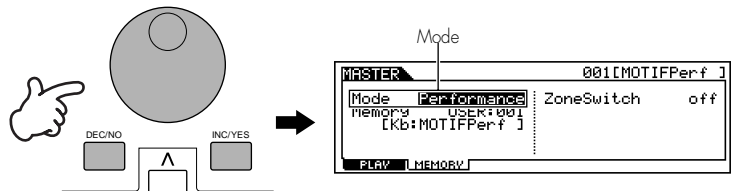
The selected mode and program are memorized to a Master in the Master Play mode.

1 Enter the Master mode and select a Master number (page 269).

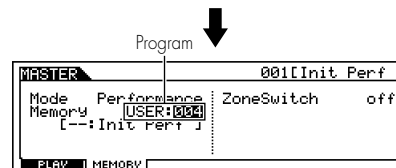
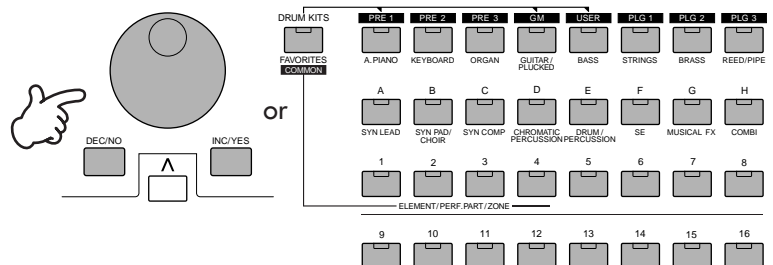
2 Call up the MEMORY display by pressing the [F2] button.



3 Select the mode to be memorized.

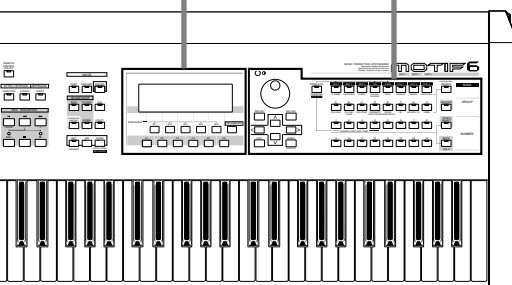


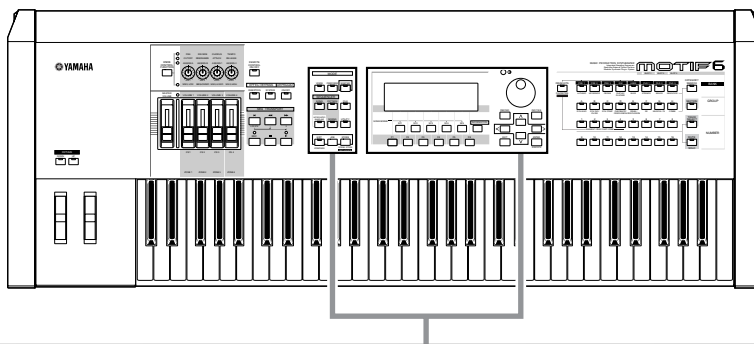
4 Select the desired program (voice, performance, song, or style number) to be memorized.



5 Name the Master.

You can name the Master in the Master Edit mode (page 75).
 You can also set the functions assigned to the Control Knobs/Sliders (page 273).





6 Store the settings to a Master.

The edited Masters can be stored to the internal memory (SRAM). Up to 128 Masters can be stored.

NOTE For details about memory structure, see page 63.

CAUTION

When you execute this, the settings for the destination memory will be overwritten. Important data should always be backed up to computer, a separate Memory Card or some other storage device. (See page 97.)

1 Press the [STORE] button to enter the Master Store mode.



2 Select a destination Master.



3 Press the [ENTER] button.



4 Execute the Store operation.



NOTE To cancel the Store operation, press the [DEC/NO] button.

CAUTION

For Store operations that take longer to process, you will see the message "Executing..." during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

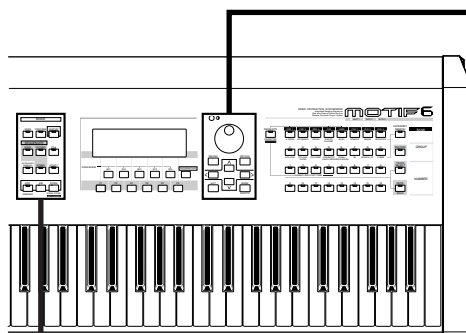
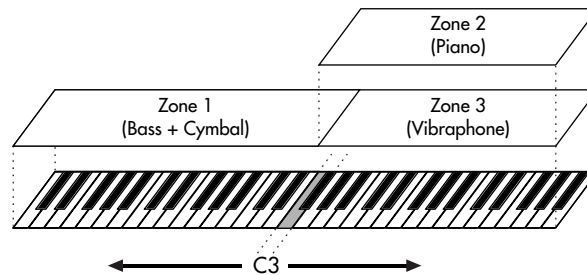
Master Keyboard settings

● Layer/Split settings using an external tone generator

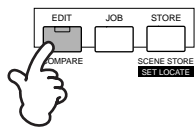
The MOTIF can function as a comprehensive, versatile master keyboard, for both live and studio applications. When a Master is set to the Voice or Performance mode, you can make settings for four independent Zones. This makes it possible to control voices of an external MIDI device over several different channels — in addition to the internal voices of the MOTIF itself. You can do this by setting the sound range of the keyboard for each Zone and assigning different MIDI channels to each range.

For example, this lets you layer several voices together, including those of a connected MIDI tone generator. Plus, you can separate the voices into different keyboard ranges, and play completely different sounds with your left and right hands. In the example below, we'll set up three Zones as shown below. We'll program a split at the note C3. In the lower range (B2 and lower), a bass voice and cymbal voice will sound. In the upper range (C3 and above), we'll layer piano and vibraphone voices — played from an external MIDI tone generator. Using this sophisticated setup, you can easily sound like an entire jazz group, with just your two hands.

In the example instructions here, we'll use the Voice mode for the Master.

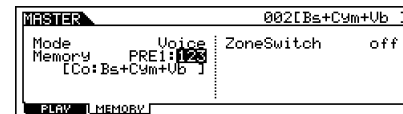
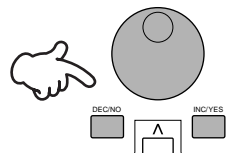


3 Enter the Master Edit mode.

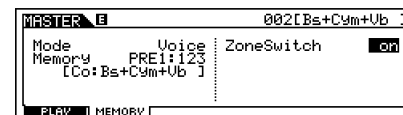
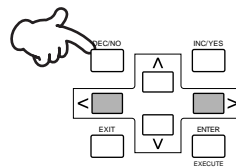


1 Select a Voice in the Master Play mode.

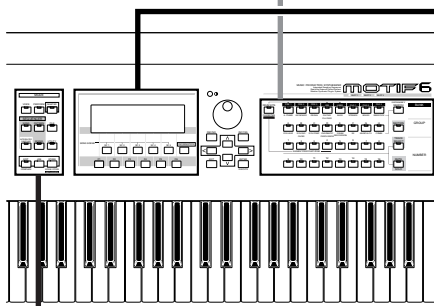
Set the Mode to Voice, then select the PRE1 bank and voice 123.



2 Set the Zone Switch to on.



4 Call up the display for Zone editing.
Press any of the buttons.



7 Store the settings to a Master (page 94).

5 Call up the TRANS display.

- 1 Set the TG Switch of Zone 1 to on and set those for all other Zones to off. This is for transmitting the data played only in the Zone 1 to the built-in tone generator.
- 2 Set the MIDI Switch of the Zone 2 and 3 to on and set the ones of the other Zones to off. This is for transmitting the data played in the Zone 2 and 3 to the external tone generator.

- 3 Set the MIDI transmit channel of Zone 1 to 1. Set the MIDI transmit channel of Zone 2 and 3 to match the Receive channel of the external tone generator (slave).
- 4 Make sure the external tone generator is set to multi-timbral operation (different voices for each of the 16 MIDI channels), and select the appropriate voices on the tone generator, corresponding to the MIDI channels you set in 4 above.

6 Call up the NOTE display.

- 1 Set the Note Limit H (High) of Zone 1 to B2. Set the Note Limit L (Low) of Zone 1 to C-2.
- 2 Set the Note Limit H (High) of Zone 2 and 3 to G8. Set the Note Limit L (Low) of Zone 2 and 3 to C3.

Each Zone will sound the assigned voice within the note range set above.

● Control Number settings

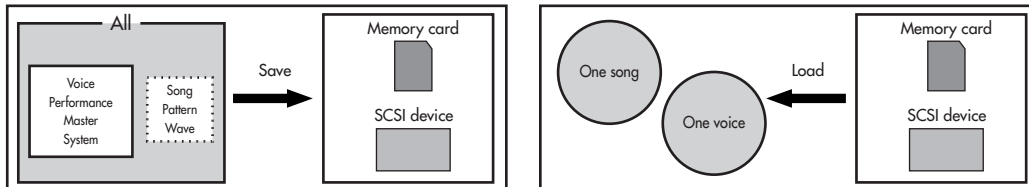
Here in the KN/CS display of the Master Edit mode, you can set how the Control knobs and sliders will affect each Zone. This lets you specify a MIDI Control Change number for each knob and slider. In the example below, the Control knobs for all Zones have been set to 10 (Pan), and the sliders have been set to 11 (Expression). In this way, you can control the stereo position of each Zone with the appropriate knob, and use the sliders to adjust the relative volume balance among the Zones.

This setting is available only when the Zone Switch is set to on from the Memory display in the Master Play mode.

Saving/Loading data

Basic Structure (page 63) - Reference (page 266)

Many different types of data are created when using the MOTIF, and the following types are automatically maintained in memory, even if the power is turned off: Voice, Performance, Master, Arpeggio and System settings (parameters set in the Utility mode). Since the other data (e.g., wave data recorded via the Sampling function, Song, Pattern) is lost when turning the power off, you should save it to a memory card or SCSI device connected to the MOTIF. Data created on the MOTIF can be saved to Memory card or SCSI device in a variety of file types. By selecting "All" as the file type to be saved, all your original MOTIF data can be saved to Memory card/SCSI device. However, when loading this "All" data back to the MOTIF, you can choose a specific data type to be loaded (e.g., one voice or one song), as illustrated below.



NOTE For details about using Memory cards, see page 289. For details about using SCSI devices, see page 264 and page 290.

Saving data

NOTE Before you can use a new Memory card or external SCSI device with the MOTIF, you'll have to format it from the MOTIF. See page 265 for details.

1 Enter the File mode by pressing the [FILE] mode.

2 Call up the CONFIG display.

3 Select a device to which the data is to be saved.
Move the cursor to the Current parameter and select "CARD" or "SCSI."

4 Call up the SAVE display.

5 Select a file type to be saved.
Here, select "All."

NOTE For details about file type to be saved, see page 262.

6 Select a folder to which the data is to be saved.

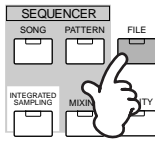
NOTE You can name the folder by using the [F4] button and create a new folder by using the [F6] button.

7 Press the [ENTER] button.

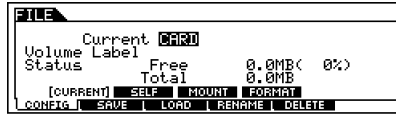
8 Press the [INC/YES] button to execute the Save operation.

Loading data

1 Enter the File mode by pressing the [FILE] button.

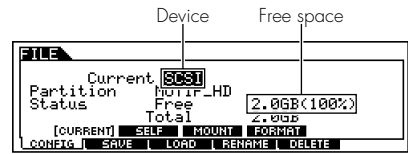


2 Call up the CONFIG display.

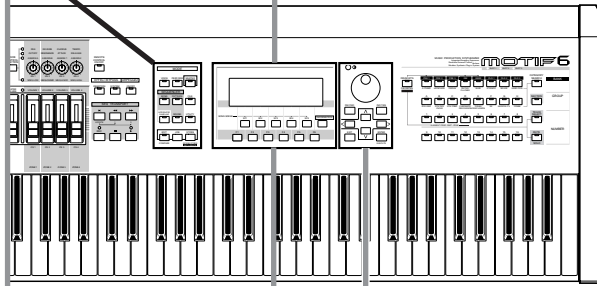
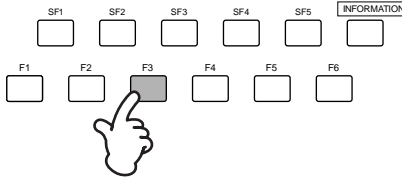
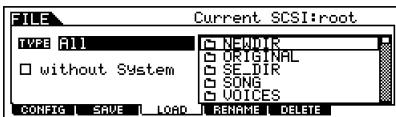


3 Select the device from which the data is to be loaded.

Move the cursor to the Current parameter and select "CARD" or "SCSI."

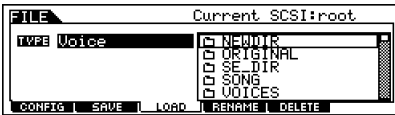


4 Call up the LOAD display.



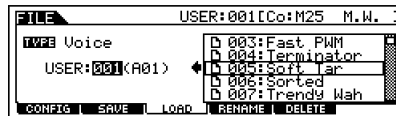
5 Select a file type to be loaded.

Here, select "Voice."



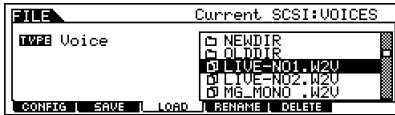
NOTE For details about the file types that can be loaded, see page 263.

7 Select the destination User memory to which the data is to be loaded.

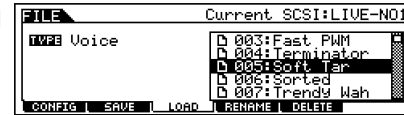


6 Select a file to be loaded.

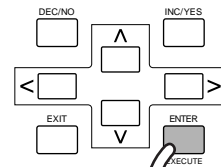
Here, select a file with the extension ".W2V," press the [ENTER] button, and select the desired voice.



[ENTER] button



8 Press the [ENTER] button to execute the Load operation.



NOTE Loading data to the MOTIF automatically erases and replaces any existing data in the User memory. Make sure to save any important data to a Memory card/SCSI device before performing any Load operations.

Sampling with Song Playback (Integrated Sampling Sequencer)

In this section, we'll delve into one of the most important and powerful features of the MOTIF — the Integrated Sampling Sequencer.

Today's digital music producers and artists use a multitude of advanced tools to get the job done — including MIDI, sampling, audio editing and much more. Cutting and pasting beats, loops and patterns together is an integral part of the music making process. The MOTIF lets you work in the same way, fully integrating sampling with MIDI sequencing — making it easier than ever before to produce great tracks.

Below is a summary of the steps you'll take as you create a new song.

■ Creating Rhythm track

- 1 Sampling to a Pattern Track
- 2 Recording MIDI data to a Pattern Track
- 3 Assigning a Preset Phrase to a Pattern Track (Patch function)
- 4 Using the Groove function
- 5 Pattern Mixing
- 6 Creating the Pattern Chain

■ Creating a Song

- 7 Copy the Pattern Chain data to the Song
- 8 MIDI recording to Song Tracks
- 9 Sampling to Song Track
- 10 Song Track Mute and Scene
- 11 Song Mixing and storing the settings as a template
- 12 Saving and Exporting the recorded song to external PC (File Utility)

1. Sampling to a Pattern Track

Basic Structure (page 52) - Reference (page 234)

First, record your favorite rhythm phrase from an audio CD (or other source) to the MOTIF via the Sampling function.

NOTE For details about how to connect the external audio equipment to the MOTIF, see page 23.

1 Enter the Pattern mode.

SEQUENCER
SONG PATTERN FILE
INTEGRATED SAMPLING MIXING UTILITY

2 Call up the PLAY display.

PATTERN 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
01: [R] MEARS
Trans: + 0 4/4 120.0 001:01/001
PLAY GROOVE OUTPUT PATCH TRUCE CHAIN

SF1 SF2 SF3 SF4 SF5 INFORMATION
F1 F2 F3 F4 F5 F6

3 Select the Style number and Section to be recorded.
Press the [SECTION] button, then the appropriate button [A] ~ [H].

STYLE number 02: [B] SECTION
Trans: + 0 4/4 120.0 001:01/001
PLAY GROOVE OUTPUT PATCH TRUCE CHAIN

• **Selecting a Style number**

Decreases number (DEC/NO) Increases number (INC/YES)

Decreases number (DEC/NO) Increases number (INC/YES)

• **Selecting a Section**

PRE-1 PRE-2 PRE-3 CM USER PLG-1 PLG-2 PLG-3 CATEGORY SEARCH
A.PIANO KEYBOARD ORGAN GUITAR/PLUCKED BASS STRINGS BRASS REED/PIPE
A B C D E F G H SECTION
SYN LEAD SYN PAD/CHOIR SYN COMP CHROMATIC PERCUSSION DRUM/PERCUSSION SE MUSICAL FX COMB

4 Enter the Sampling mode.

SEQUENCER
SONG PATTERN FILE
INTEGRATED SAMPLING MIXING UTILITY

5 Call up the DEST display.

SAMPLE Pattern[*****]
TYPE: SLICE+SER SOURCE: A/D
OUTPUT TRACK TARGET 1
DEST SOURCE REC

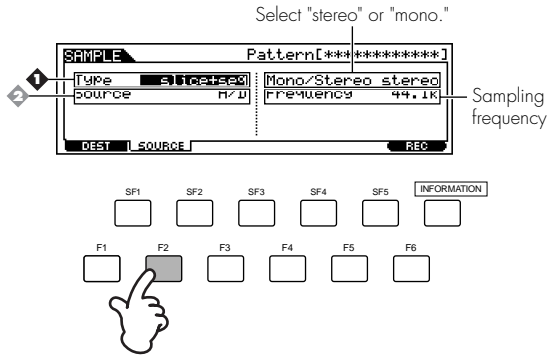
SF1 SF2 SF3 SF4 SF5 INFORMATION
F1 F2 F3 F4 F5 F6

6 Select a track to be recorded.
Here, select track 3.

DEC/NO INC/YES

SAMPLE Pattern[*****]
TYPE: SLICE+SER SOURCE: A/D
OUTPUT TRACK TARGET 3
DEST SOURCE REC

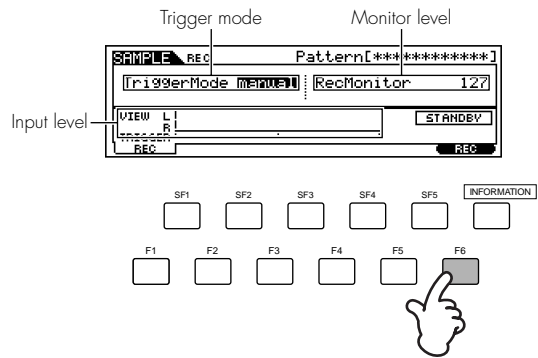
7 Call up the SOURCE display.



- ❖ **Select a sampling type.**
For Type, select "slice+seq."
- ❖ **Select a sampling source.**
For Source, select "A/D."

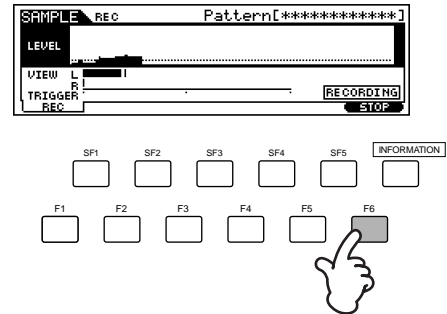
8 Enter the Sampling Standby mode.

From this display, set the Trigger mode. Here, select "manual." Play back the external CD player to check the Input level. You can adjust the Input level for optimum level by using the GAIN knob on the rear panel.



9 Start sampling.

Press the [F6] button to start sampling. Also start the external CD player to play back the rhythm phrase to be recorded.



10 Stop sampling by pressing the [F6] button again.

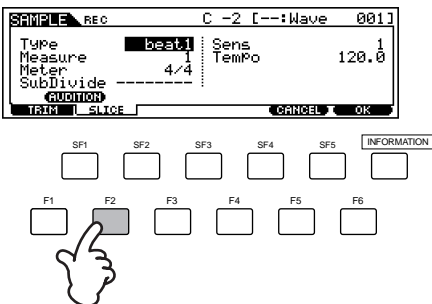
11 Set the Slice related parameters.

The following display appears after stopping sampling since the sampling type has been set to "slice+seq" in step #7. You'll need to trim your sample of extraneous beats, so that it will loop properly. Do this by using the Start, Loop, and End parameters in the display below. (For details, see page 237.) As you edit these parameters, press the [SF1] button (Audition) to hear the changes you've made.

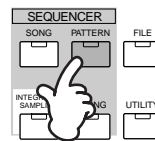


12 Execute the Slice operation.

Once you've edited the sample so that it loops properly, call up the SLICE display and set the parameters as needed. (For details, see page 238.)



13 Go back to the Pattern play mode and play the Pattern to hear the recorded sample.



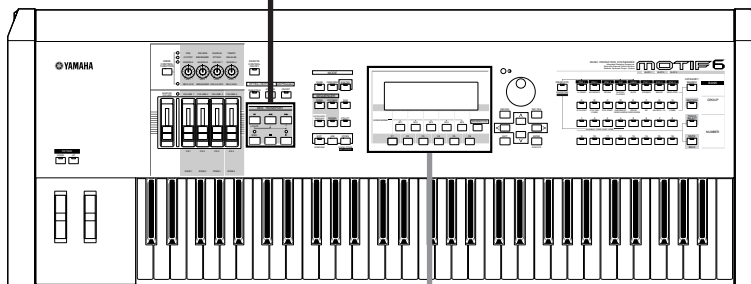
2. Recording MIDI data to a Pattern Track

Basic Structure (page 53) - Reference (page 221)

Now that you've recorded a rhythm sample to a Pattern and sliced it, the next step is to record some MIDI parts and add them to the Pattern. You can record MIDI in two ways: Realtime and Step.

1 After setting the measure length and meter (time signature), enter the Pattern Record mode.

The diagram shows a control panel labeled 'SEQ TRANSPORT' with buttons for 'LOCATE', 'REC', and other transport functions. A hand icon is pointing to the 'REC' button.



2 Select a Recording type.

The diagram shows a hand pointing to a circular dial with three options: 'DEC:NO', 'INC:YES', and a central button. An arrow points to a screen display showing recording settings.

PATTERN REC		01 [*****]	
1	2	3	4
Type	overdub		
Loop	on	4/4	120.0
Quantize	off	Meas	001:01
SETUP	VOICE	ARR	ARR
			CLICK

Replace
You can use this method when you want to overwrite an already recorded track with new data.

Overdub
You can use this method when you want to add more data to a track that already contains data.

Step
You can compose your performance by "writing" it down one event at a time.

To step 3 on page 103

To step 3 on page 104

● **Realtime recording (when selecting replace or overdub in step #2)**

3 Select a track 2 to be recorded and set the tempo.

Track to be recorded

Meter Tempo

Measure length

4 Call up the VOICE display.

PRE1:001 [AP:PowerGrand]

PRE2:020 [St:MournStr9s]

6 Set the Arpeggio related parameters from the ARP display (page 223).

7 Turn the Click on.

CLICK

8 Start recording.

SEQ TRANSPORT

REC

9 Play the keyboard.

10 Stop recording.

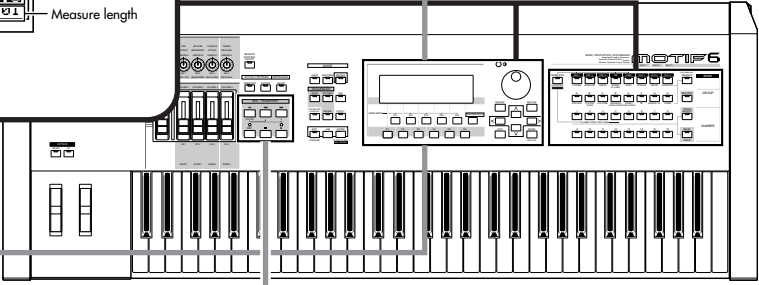
SEQ TRANSPORT

REC

11 Press the [▶] button to hear the newly

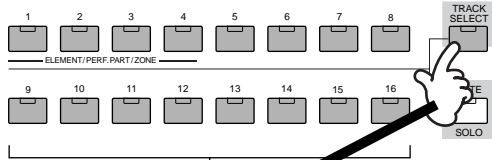
SEQ TRANSPORT

12 Record to other tracks as desired by repeating steps #3 - 11.

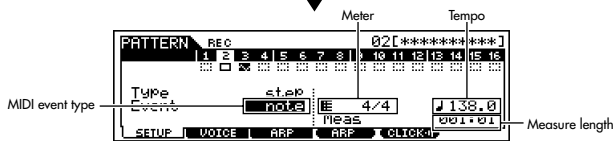
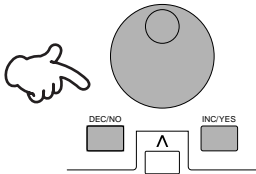


● Step recording (when selecting step in step #2)

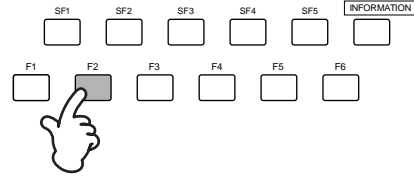
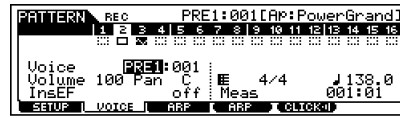
3 Select a track 2 to be recorded and set the MIDI event type to be recorded and tempo.



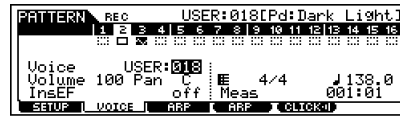
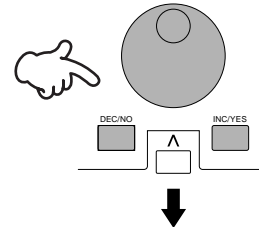
Track to be recorded



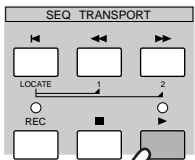
4 Call up the VOICE display.



5 Select the desired voice to be recorded to a track (phrase).

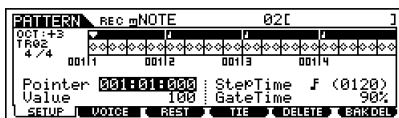


6 Start recording.



Here, enter the Note Event.

- 1 Move the cursor to the Pointer and set the location to be entered.
- 2 Set the velocity (Value), Step Time, and Gate Time.
- 3 Press the key to be recorded.
- 4 Repeat steps #1 - 3 to enter the notes one after another.



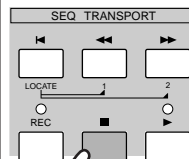
Moves the pointer backward by one step and deletes all notes at that location.

Press this to actually delete the note events at the current cursor position.

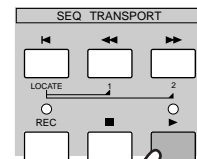
When the [F4] button is pressed to enter a tie, the preceding note is lengthened to the full step time.

Press [F3] to enter a rest as long as the specified step time.

7 Stop recording.



8 Press the [▶] button to hear the newly recorded pattern.



9 Record to other tracks as desired by repeating steps #3 - 8.

3. Assigning a Preset Phrase to a Pattern Track (Patch function)

Basic Structure (page 52) - Reference (page 219)

The Patch function lets you assign a Preset phrase or a User phrase (recorded in the Pattern Record mode) to each track and create a pattern that contains up to 16 tracks.

1 Call up the PATCH display.

2 Select a track to which the phrase is assigned.

3 Select a Phrase Bank and number.
Move the cursor to Bank and select "pre" or "user."

Then, move the cursor to the number parameter and set it. Keep in mind that only User phrases that have been recorded to the currently selected style can be selected here. If you want to assign a phrase that has been recorded to another style, use the Phrase Copy Job (page 228).

4 Press the [▶] button to hear the pattern.

5 Assign phrases to the other tracks as desired.

4. Using the Groove function

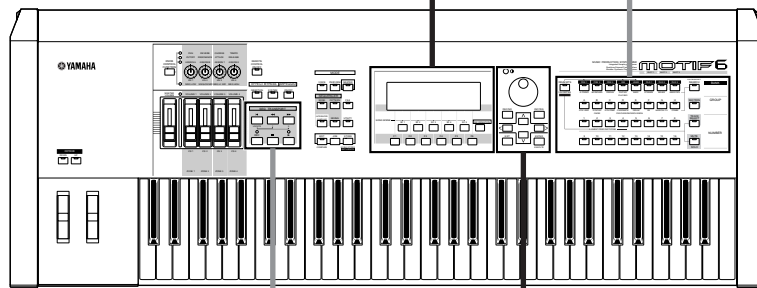
Reference (page 218)

The Grid Groove function makes it possible to adjust the pitch, timing, length, and velocity of notes in a specified track on a measure-long 16th-note grid. This lets you easily come up with a wide variety of rhythmic feels and grooves that would be difficult or impossible to create using precise, yet rigid sequencer operations. Moreover, Grid Groove is a playback-only operation, meaning that it leaves the original recorded data intact.

Grid Groove can also be applied to sample tracks that contain samples processed with the Slice function, as well as normal MIDI tracks.

1 Call up the GROOVE display.

2 Select a track.



3 Set the parameters.
Move the cursor to the desired parameter and grid point and set the offset value. This affects song playback without actually changing the sequence data.

	minus	0	plus
NOTE OFFSET	▲	●	▼
CLOCK SHFT	▲	●	▼
GATE OFFSET	▲	●	▼
VELO OFFSET	▲	●	▼

Each aspect of the track to be offset (pitch, time, length, velocity) is indicated by a different graphic.

4 Press the [▶] button to hear the edited pattern.

NOTE Keep in mind that if you make an edit at a specific 16th note position and there is no MIDI data at that point, the track will not change.

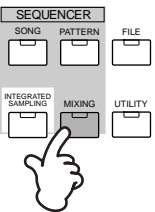
5 Make Grid Groove settings for other tracks as desired.

5. Pattern Mixing

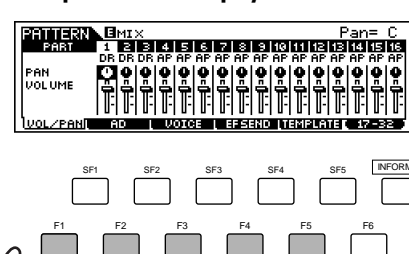
Reference (page 232)

Now that you have a finished section and pattern, you can apply the Pattern Mixing controls to fine-tune it and enhance it — by adjusting the levels of each track or part, selecting different voices, and tweaking the effect-related settings.

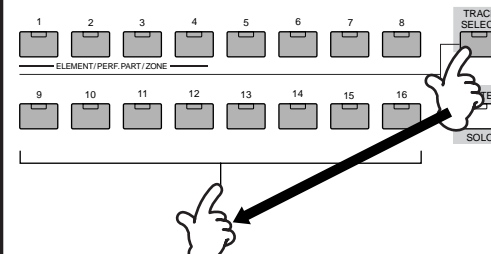
1 Enter the Pattern Mixing mode.

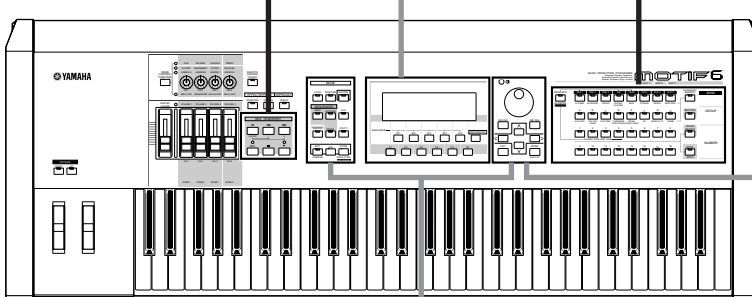


2 Call up the desired display.

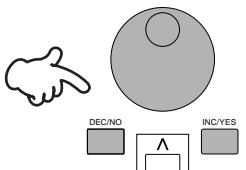


3 Select a part to be edited.

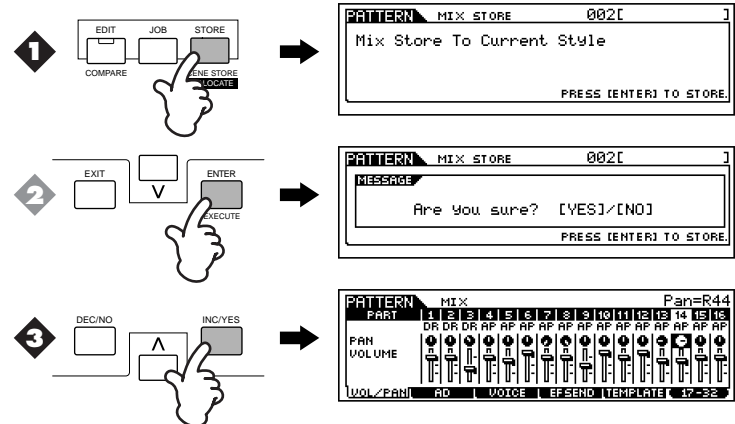




4 Highlight the desired parameter and change the value.

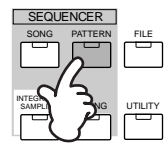


5 Set the other parameters by repeating steps #2 - 4.



6 Store the Song Mixing setup to User Memory.

7 Go back to the Pattern Play mode.



NOTE Not each section but each style has one Pattern Mixing setting.

Quick Start Guide

MOTIF Quick Start Guide 107

6. Creating a Pattern Chain

Basic Structure (page 54) - Reference (page 219)

Now that you've got your audio samples, loops, MIDI data, and patterns in the MOTIF, here's where the fun really begins. The Pattern Chain feature lets you arrange all of the pieces of your song in real time. As you record a Pattern Chain, play back your original patterns and sections, and switch among them on the fly. This intuitive, hands-on approach to arranging lets you come up with great ideas and amazing songs — quickly and easily.

NOTE For details about Pattern Chain and its track and memory structure, see page 54.

1 Enter the Pattern Chain mode by pressing the [F6] button in the Pattern Play mode.

2 Enter the Pattern Chain Record mode by pressing the [REC] button.

5 Stop recording.

6 Press the [▶] button to hear your new pattern chain.

3 Select a track and tempo.

4 Start recording.

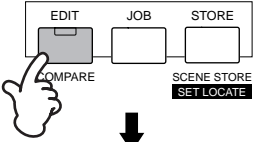

While recording, you can change the Section at the desired timing.

7. Copying the Pattern Chain data to a Song

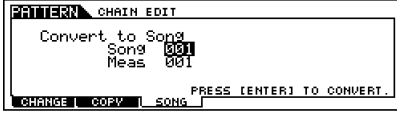
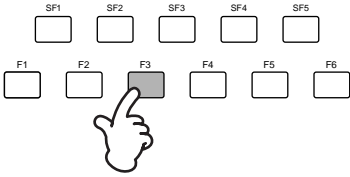
Reference (page 221)

Now that you've created a hip Pattern Chain, you can copy it to a song track and use it as the basic rhythm track for a song. This is done from the Pattern Chain Edit mode.

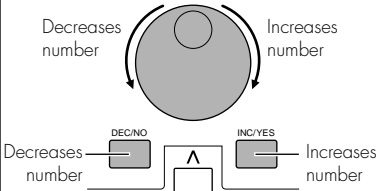
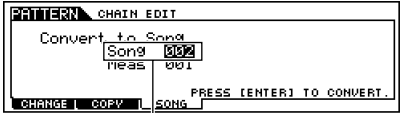
1 Enter the Pattern Chain Edit mode by pressing the [EDIT] mode in the Pattern Chain Play mode.

2 Call up the SONG display.

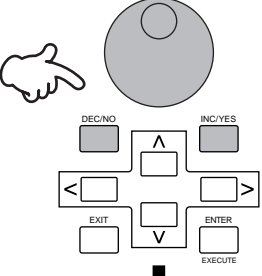




3 Select a Song number to which the Pattern Chain is to be copied.

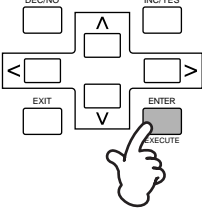
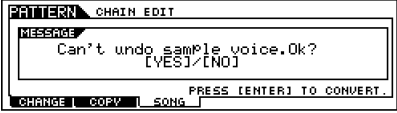



Destination Song number

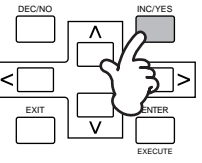
4 Specify the measure number to which the converted data is to be copied.

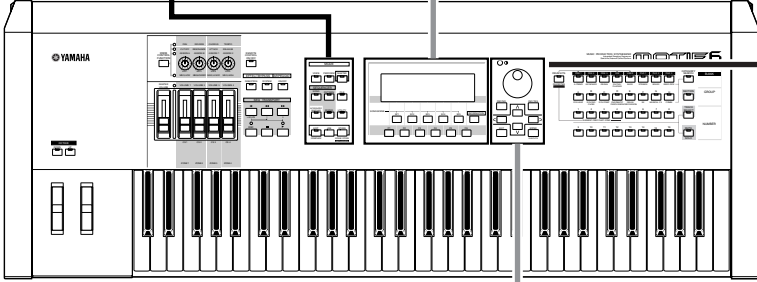



5 Press the [ENTER] button.

6 Press the [INC/YES] button to execute the Copy operation.



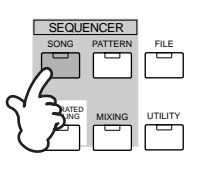


8. MIDI recording to Song Tracks

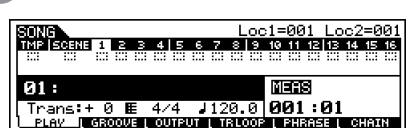
Basic Structure (page 51) - Reference (page 183)

Now, take your basic building blocks and move over to the Song mode to do some more work on your song. Let's say for the sake of example that you've recorded MIDI data for nearly all the tracks — except for maybe some rhythm guitar parts and some solos on piano and organ. The MOTIF gives you two methods of recording these. Realtime recording lets you record much as you would with a tape recorder, playing the parts in real time while you listen to the backing rhythm tracks you created earlier. The other method, Step recording, lets you enter each note individually, much like writing down the notes on paper.

1 Enter the Song mode.

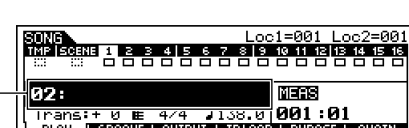


2 Call up the PLAY display.

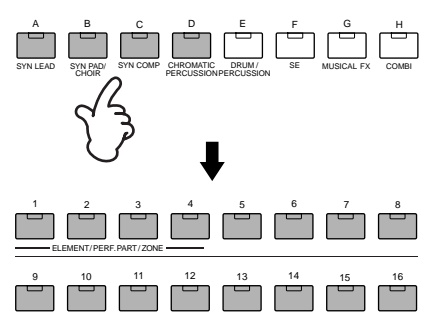


F1 F2 F3 F4 F5 F6

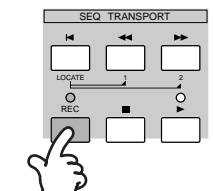
3 Select the song to which the Pattern Chain data has been copied.



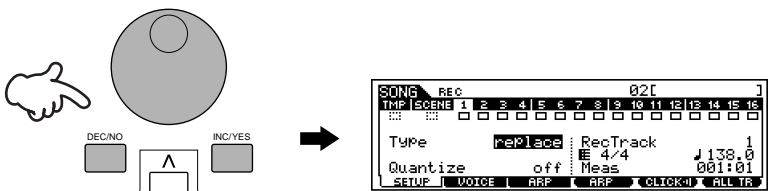
Song number



4 Enter the Song Record mode.



5 Select a Recording type.



Replace
You can use this method when you want to overwrite an already recorded track with new data.

Overdub
You can use this method when you want to add more data to a track that already contains data.

Punch
You can use this method when you want to re-record only over a specific area of the track. In this case, you must set the start and end points before you begin the re-recording.

Step
You can compose your performance by entering it one event at a time.

↓

To step 6 on page 111

↓

To step 6 on page 112

● Realtime recording (when selecting "replace," "overdub," or "punch" in step #5)

6 Select a track to be recorded and set the tempo.

7 Call up the VOICE display.

8 Select the desired voice to be recorded to a track.

9 Set the Arpeggio related parameters as desired from the ARP display (page 189).

11 Start recording.
Press the [▶] button. You will be given a one-measure countin prior to the first measure actually recorded.

13 Stop recording.

14 Press the [▶] button to hear the newly recorded song.

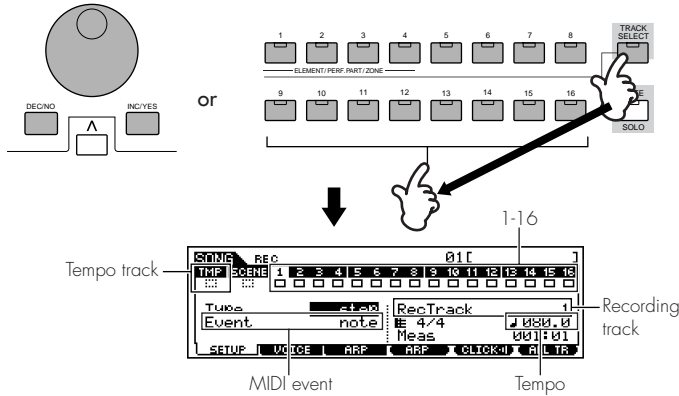
10 Turn the Click on.

12 Play the keyboard.

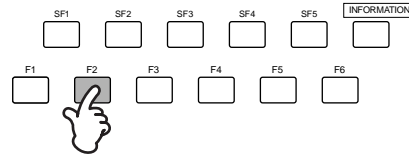
15 Record to other tracks as desired by repeating steps #6 - 14.

● Step recording (when selecting "step" in step #5)

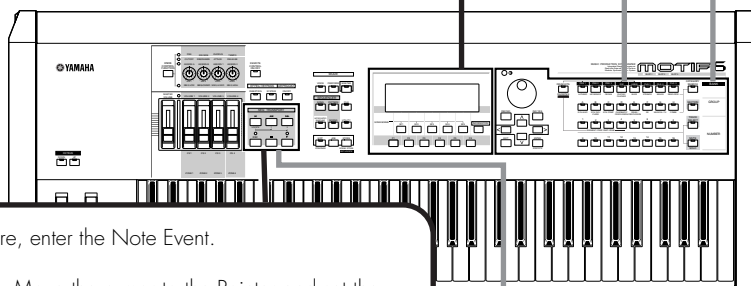
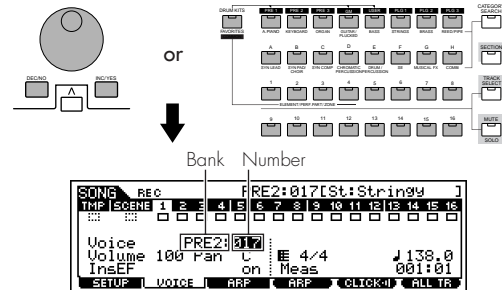
6 Select a track to be recorded and set the MIDI event type to be recorded.



7 Call up the VOICE display.

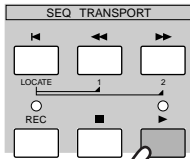


8 Select the desired voice to be recorded to the track.

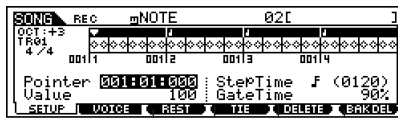


9 Start recording.

Here, enter the Note Event.

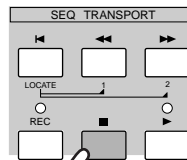


- 1 Move the cursor to the Pointer and set the location to be entered (page 185).
- 2 Set the velocity (Value), Step Time, and Gate Time (page 185).
- 3 Press the key to be recorded.
- 4 Repeat steps # 1 - 3 to enter notes one after another.

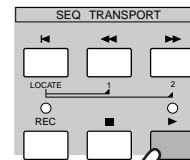


- Moves the pointer backward by one step and deletes all notes at that location.
- Press this to actually delete the note events at the current cursor position.
- When the [F4] button is pressed to enter a tie, the preceding note is lengthened to the full step time.
- Press [F3] to enter a rest as long as the specified step time.

10 Stop recording.



11 Press the [▶] button to hear the newly recorded song.



12 Record to other tracks as desired by repeating steps #6 - 12.

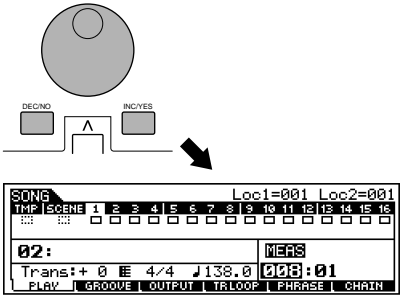
9. Sampling to a Song Track

Basic Structure (page 54) - Reference (page 234)

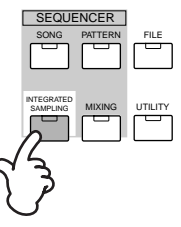
We'll pay another visit to the sampling feature, and sweeten our song with some “ear candy” sound effects and background vocals. The sampling we did earlier was of a different variety; you sampled a rhythm in the Pattern mode and “sliced” it into separate pieces so that it would loop properly and automatically adjust to any tempo changes. Here, we'll try a different type of sampling, where the Slice operation is unnecessary — since a short sound effect doesn't need to stay in tempo, and you can sing the background parts in time with the song as you sample them.

NOTE For details about how to connect external audio equipment or a microphone to the MOTIF, see page 23.

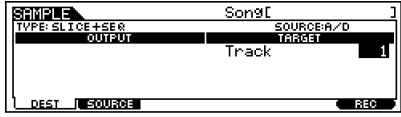
1 In the Song Play mode, specify the point (measure) in the song at which the recorded sample will start.



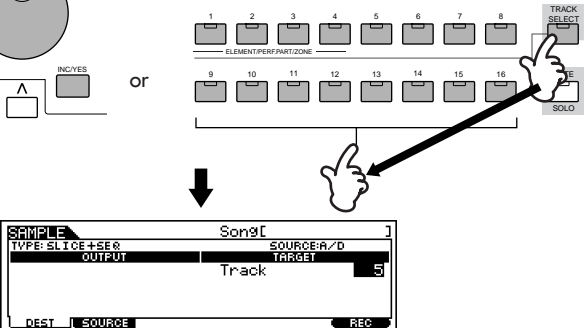
2 Enter the Sampling Record mode.



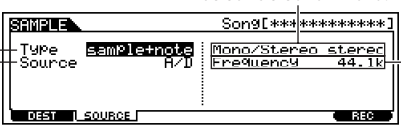
3 Call up the DEST display.

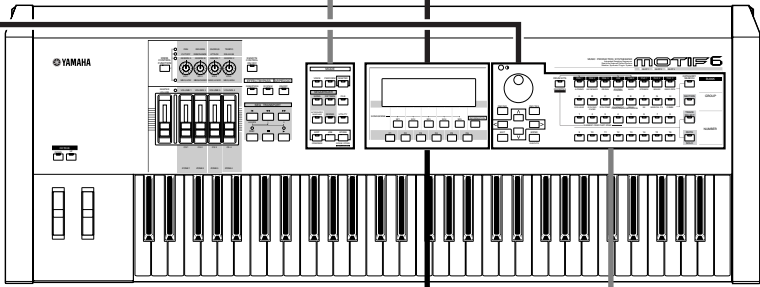


4 Select a track to be recorded.



5 Call up the SOURCE display.



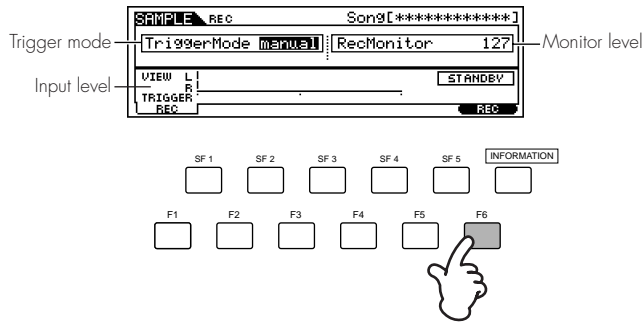


1 Select a sampling type.
For Type, select “sample+note.”

2 Select a sampling source.
For Source, select “A/D.”

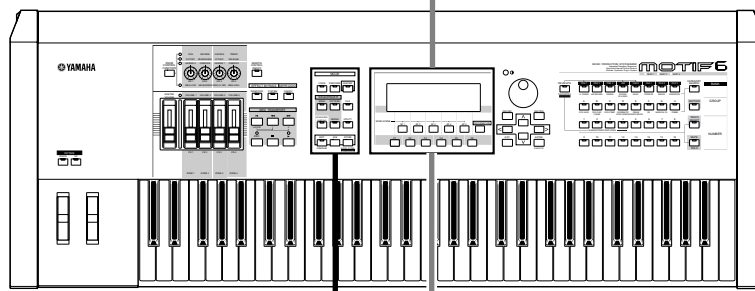
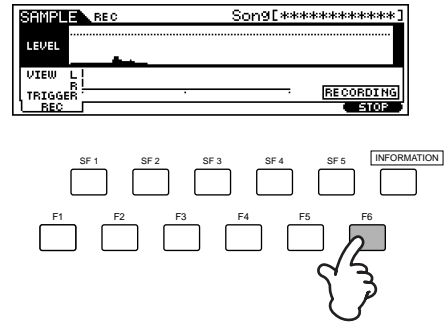
6 Enter the Sampling Standby mode.

From this display, set the Trigger mode. Here, select "manual." Play back the external CD player to check the Input level. You can adjust the Input level for optimum level by using the GAIN knob on the rear panel.

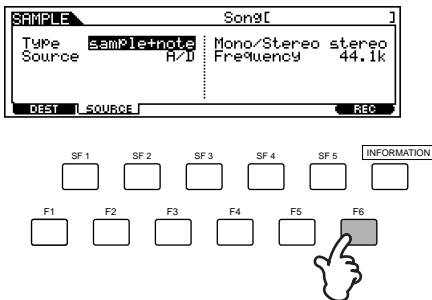


7 Start sampling.

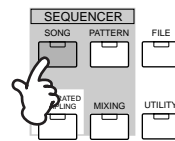
Press the [F6] button to start sampling. Also start the external CD player to play back the phrase to be recorded or sing into the microphone.



8 Stop sampling by pressing the [F6] button again.



9 Go back to the Song Play mode and play the song to hear the recorded sample.



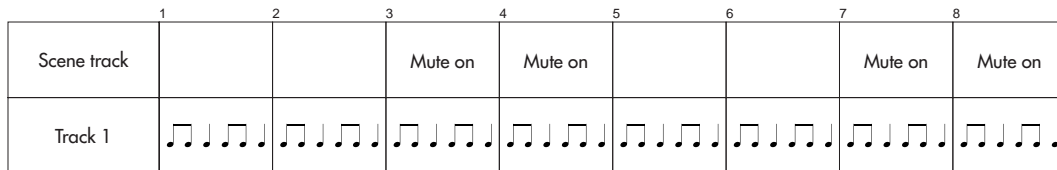
10 Record samples to other tracks as desired by repeating steps #1 - 9.

10. Song Track Mute and Scene

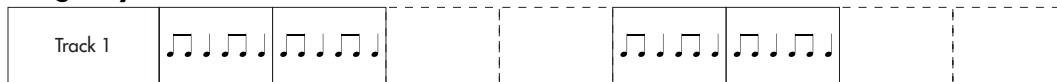
Reference (pages 180, 181)

These two powerful features give you even greater real-time arranging control. You can turn tracks on and off and switch among Song Scenes, as the song plays — and all your moves can be recorded to the special Scene track. This not only lets you hear the various song arranging possibilities, it lets you record them on the spot.

For example, sample an audio rhythm phrase to one of the tracks of your song, and turn on the Track Loop function (page 182). As the song is playing, you can fly the rhythm part in and out of the song by alternately un-muting and muting the track. To do this, enable recording and select the Scene track (as described in step #3 of MIDI recording on page 103), and record your track mutes in time with the music by pressing the Track number button, then the appropriate track number buttons. This hands-on approach really lets you feel the changes you make — since you perform them in time with the rhythm — and gives you the power to improvise great musical arrangements on the fly.

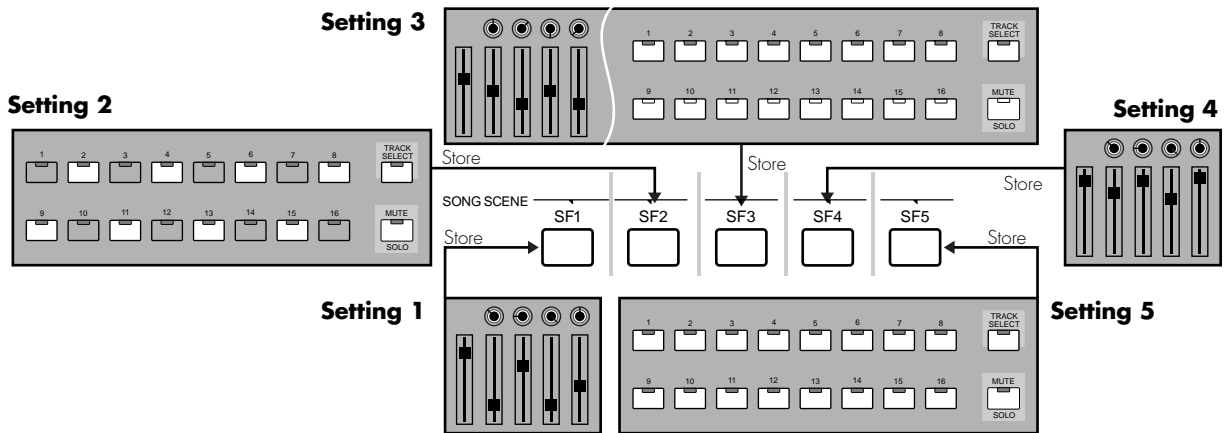


Song Playback



In addition to Track Mute, the MOTIF also features a versatile Song Scene function. Song Scene lets you make various changes to the tracks (such as pan, volume, and others), and take a “snapshot” of those settings — which you can recall at any time with a single button press.

A maximum of five Scenes can be stored, to the five Scene buttons ([SF1] - [SF5]). To instantly call up a Scene and change the tracks, simply press the appropriate button [SF1] - [SF5]. Just as with Track Mute, you can record these Scene changes as well, by “playing” your button presses along with the music.



You can use the Song Scene function from either the PLAY display in the Song Play mode or the SETUP display in the Song Record mode. In the example instructions below, the PLAY display in the Song Play mode has been called up.

11. Song Mixing and storing the settings as a template

Reference (page 205)

In this final step (other than saving your precious work, which we'll cover next), you can mix down your tracks with the Song Mixing function — adjusting the volume balance and pan setting of all the parts and tweaking the effect levels. Moreover, you can save your mixing settings as a template (up to sixteen templates can be saved), then call up the appropriate template when mixing down a song that has a similar track structure.

1 Enter the Song Mixing mode.

3 Select a part.

NOTE When a Multi part Plug-in board (PLG-100XG) has been installed to slot 3, the display for Parts 17 - 32 can be called up. When a Single part Plug-in board has been installed to any of the three slots, the PLG 1~3 part display can be called up.

4 Select the desired parameter and adjust it.

2 Call up the desired display.

5 Set the desired parameters for the other parts, repeating steps #2 - 4 above.

NOTE A wider variety of detailed editing controls is also available in the Song Mixing Edit mode.

6 Call up the TEMPLATE display.

7 Select the destination template number.

Move the cursor to the template number and select the number to which the settings are to be stored.

8 Name the template.

Template name

NOTE For details about naming, see page 75.

9 Execute the Store operation.

NOTE The template stored above can be recalled by pressing the [SF4] (GET) button from this display.

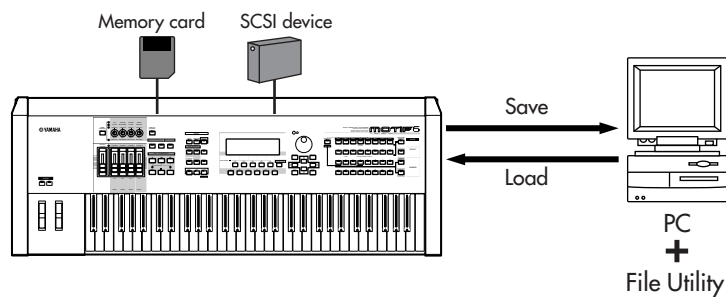
12. Saving and Exporting the recorded song to external PC (File Utility)

Reference (page 262)

Now that you've created your masterpiece, you'll want to save it. You can save song data to a Memory card or SCSI device in the File mode (page 261).

However, for safekeeping and organizational/archival purposes, you may want to store your MOTIF data to a computer. You may also want to use your computer to do further editing and recording to your MOTIF-created songs. The File Utility software (contained on the included CD-ROM) lets you do that and more — allowing you to transfer files back and forth between a computer and the MOTIF via a standard USB cable connection.

Here's a practical example. Let's say you want to add a long section of audio data to your song, such as a lead vocal or an extended guitar solo. Since recording that to the MOTIF may not be entirely practical or possible, you may want to transfer your song to a computer, then record and edit the new audio tracks on the computer. First, you should save the song data in Standard MIDI File (SMF) format to Memory card or a connected SCSI device, then transfer the MIDI file to the computer with the File Utility software. Once you've imported the MIDI file to sequencer software on your computer, match the MIDI send and receive channels (computer-to-MOTIF) so that each track of the sequencer song data plays the appropriate part on the MOTIF. Finally, play back the song and record the desired audio parts (vocals, solos, etc.) using your audio/MIDI sequencer.



NOTE For details about the File Utility software, refer to the electronic documentation contained in the included CD-ROM.

Remote Control for external sequencer (Real-time external control surface)

Basic Structure (page 65) · Reference (page 256)

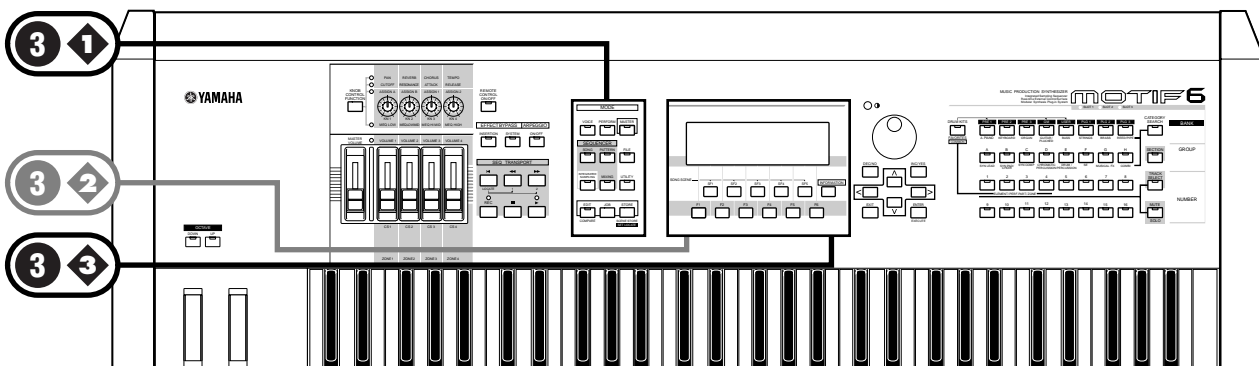
In the last section, you saw how a computer could be used conveniently to augment the features of the MOTIF. Here, we'll look at a feature that turns the tables and lets you conveniently use the MOTIF to control your computer. The Remote Control function lets you use the hardware controls on the panel of the MOTIF to control a variety of fundamental operations on the sequencing software of your computer. You can mute your tracks, control the sequencer transport (Play, Stop, Record, etc.), mix both MIDI and audio tracks (up to 16) with the MOTIF's knobs and sliders, pan the tracks, control EQ, and tweak effect sends — all without ever touching the mouse. Not only is this a more convenient and efficient way to work — since it gives you dedicated controls for the functions you use the most — it also (with the knobs and sliders) gives you finer control over crucial level parameters. If you've ever used a mixing console or a hardware sequencer, you'll love being able to finally control your sequencing software with buttons, knobs, and sliders.

Setting Up

Before you can use the Remote Control function, you'll need to set up the system as described below.

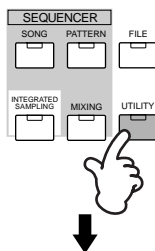
1 Connect your computer to the MOTIF via USB cable. See page 25.

2 Install the USB MIDI driver and the setup file for the sequence software (contained in the included CD-ROM) to your computer. For details on how to install, see the Installation Guide manual.

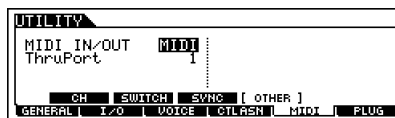


3 Select the template for your particular sequence software in the Utility mode on the MOTIF (above).

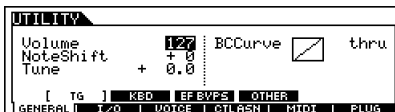
1 Enter the Utility mode.



2 Call up the OTHER display in the MIDI menu.

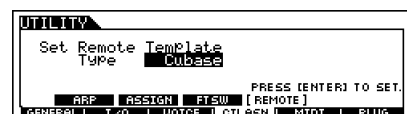


4 Call up the REMOTE display in the CTLASN menu.



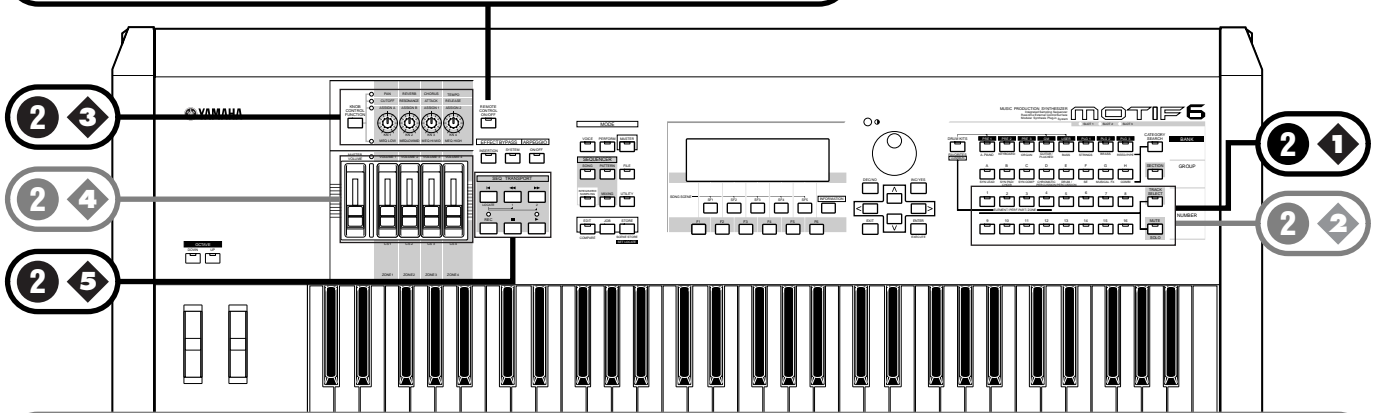
3 Move the cursor to the MIDI IN/OUT parameter and set to USB.

5 Select the Template type.



Using the Remote Control function

- 1 Turn the Remote Control function on by pressing the [REMOTE CONTROL ON/OFF] button so that its lamp flashes. 

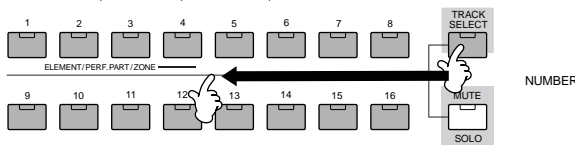


- 2 Operate the Control knobs or sliders on the MOTIF's panel as required.

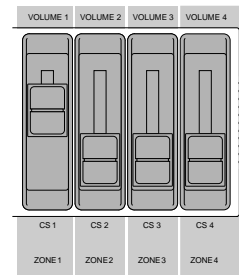
NOTE Functions to be controlled by the MOTIF differ depending on the software you use. For details, see page 256.

- 1 Select a track on your computer's sequencer from the MOTIF.

The [1]~[16] buttons correspond to the respective numbered tracks on your computer's sequence software.

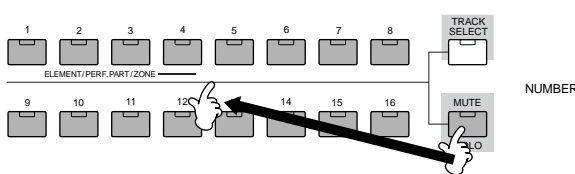


- 4 Control the level of selected track of the sequencer by using the Control sliders.



- 2 Turn the track of the sequencer on or off (mute).

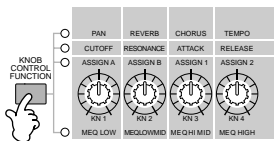
The [1]~[16] buttons correspond to the respective numbered tracks on your computer's sequence software.



When the selected tracks are 1-4:	1	2	3	4
When the selected tracks are 5-8:	5	6	7	8
When the selected tracks are 9-12:	9	10	11	12
When the selected tracks are 13-16:	13	14	15	16

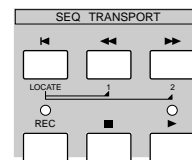
- 3 Control the selected track of the sequencer by using the Control knobs.

For details about the parameters that can be controlled, see page 257.



- 5 Control the transport functions on the sequencer.

The [SEQ TRANSPORT] buttons can be used to control Start, Stop, Forward, Rewind, and Record on the computer sequence software.



Reference

This section is devoted to explaining the function of every setting of every parameter in every display of the MOTIF. If you have questions like “I wonder what this button does...” or “How does this parameter work?” — this is the section you should refer to. The Reference section is divided according to the various modes of the MOTIF. As you use this section, please keep in mind the following points:

- The section for each main mode (Voice, Performance, Song, Pattern, Sampling, Utility, File, and Master) begins with a Function Tree chart. Each chart shows the various menus and parameter groups for the mode — exactly as they are organized and appear in the display. Using these and the simplified chart of the modes on page 30, you can easily understand the relationship of the various functions and parameters as they apply to the entire operation of the MOTIF.
- At the beginning of the section of each mode, you’ll find “Basic Procedure” instructions. These briefly show you the necessary operation steps for the relevant mode, and are applicable to all of the functions and parameters in that mode. In other words, once you’ve mastered the Basic Procedure of the mode, you’ll be able to quickly and easily work your way through any and all of the operations in the mode.

Voice Mode

Basic Structure (page 42)

Function Tree

This section is devoted to the Voice mode. To see how the Voice mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30.

The following detailed chart shows all of the display menus and parameter groups of the Voice modes — giving you a quick, easy-to-understand overview of the voice-related functions of the MOTIF. Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

[VOICE]	[INFORMATION] VOICE INFORMATION	P. 275
	[VOICE] VOICE PLAY	P. 124
	[F1] VOICE PLAY	P. 124
	[F2] PLUG-IN BANK	P. 128
	[F4] VOICE PORTA	P. 128
	[F5] VOICE EG	P. 128
	[F6] VOICE ARPEGGIO	P. 128
	[CATEGORY] VOICE CATEGORY SEARCH	P. 126
	[FAVORITE]	P. 127
	[EDIT] VOICE EDIT (NORMAL)	P. 129
	[COMMON] NORMAL COMMON	P. 130
	[F1] NORMAL COMMON GENERAL	P. 130
	[SF1] NAME	P. 130
	[SF2] PLAYMODE	P. 130
	[SF3] MEQ OFFSET	P. 131
	[SF4] PORTA	P. 131
	[SF5] OTHER	P. 132
	[F2] NORMAL COMMON OUTPUT	P. 132
	OUTPUT	P. 132
	[F3] NORMAL COMMON ARPEGGIO	P. 132
	[SF1] TYPE	P. 132
	[SF2] LIMIT	P. 133
	[SF3] PLAY FX	P. 133
	[SF5] CLEAR USER ARPEGGIO	P. 132
	[F4] NORMAL COMMON CONTROLLER SET	P. 134
	[SF1] SET1/2	P. 134
	[SF2] SET3/4	P. 134
	[SF3] SET5/6	P. 134
	[F5] NORMAL COMMON LFO	P. 135
	[SF1] WAVE	P. 135
	[SF2] DELAY	P. 136
	[SF3] DESTINATION1	P. 136
	[SF4] DESTINATION2	P. 136
	[SF5] DESTINATION3	P. 136

	[F6] NORMAL COMMON EFFECT	P. 137
	[SF1] EFFECT CONNECT	P. 137
	[SF2] INSERTION1	P. 137
	[SF3] INSERTION2	P. 137
	[SF4] REVERB	P. 137
	[SF5] CHORUS	P. 137
	[Element selection] NORMAL ELEMENT 1-4	P. 137
	[F1] NORMAL ELEMENT OSCILLATOR	P. 137
	[SF1] WAVE	P. 137
	[SF2] OUTPUT	P. 138
	[SF3] LIMIT	P. 138
	[F2] NORMAL ELEMENT PITCH	P. 138
	[SF1] TUNE	P. 138
	[SF2] VELOCITY SENS	P. 139
	[SF3] PEG	P. 139
	[SF4] KEY FOLLOW	P. 139
	[F3] NORMAL ELEMENT FILETER	P. 140
	[SF1] TYPE	P. 140
	[SF2] VELOCITY SENS	P. 142
	[SF3] FEG	P. 143
	[SF4] KEY FOLLOW	P. 143
	[SF5] SCALING	P. 144
	[F4] NORMAL ELEMENT AMPLITUDE	P. 145
	[SF1] LEVEL/PAN	P. 145
	[SF2] VELOCITY SENS	P. 145
	[SF3] AEG	P. 145
	[SF4] KEY FOLLOW	P. 146
	[SF5] SCALING	P. 146
	[F5] NORMAL ELEMENT LFO	P. 147
	[F6] NORMAL ELEMENT EQ	P. 148
	[EDIT] VOICE EDIT (DRUM)	P. 148
	[COMMON] DRUM COMMON	P. 149
	[F1] DRUM COMMON GENERAL	P. 149
	[SF1] NAME	P. 149
	[SF3] MEQ OFFSET	P. 149
	[SF5] OTHER	P. 149
	[F2] DRUM COMMON OUTPUT	P. 149
	OUTPUT	P. 149
	[F3] DRUM COMMON ARPEGGIO	P. 149
	[SF1] TYPE	P. 149
	[SF2] LIMIT	P. 149
	[SF3] PLAY FX	P. 149
	[SF5] CLEAR USER ARPEGGIO	P. 149
	[F4] DRUM COMMON CONTROLLER SET	P. 149
	[SF1] SET1/2	P. 149
	[SF2] SET3/4	P. 149
	[SF3] SET5/6	P. 149
	[F6] DRUM COMMON EFFECT	P. 149
	[SF1] EFFECT CONNECT	P. 149
	[SF2] INSERTION1	P. 150
	[SF3] INSERTION2	P. 150
	[SF4] REVERB	P. 150
	[SF5] CHORUS	P. 150
	[Key selection] DRUM KEY C0-C6	P. 150
	[F1] DRUM KEY OSCILLATOR	P. 150
	[SF1] WAVE	P. 150
	[SF2] OUTPUT	P. 150
	[SF5] OTHER	P. 151
	[F2] DRUM KEY PITCH	P. 151
	[SF1] TUNE	P. 151
	[SF2] VELOCITY SENS	P. 151
	[F3] DRUM KEY FILTER	P. 151
	[SF1] CUTOFF	P. 151
	[SF2] VELOCITY SENS	P. 152
	[F4] DRUM KEY AMPLITUDE	P. 152
	[SF1] LEVEL/PAN	P. 152
	[SF2] VELOCITY SENS	P. 152
	[SF3] AEG	P. 152
	[F6] DRUM KEY EQ	P. 153

[EDIT] VOICE EDIT (PLUG-IN)	P. 153
[COMMON] PLUG-IN COMMON	P. 154
[F1] PLUG-IN COMMON GENERAL	P. 154
[SF1] NAME	P. 154
[SF2] PLYMODE	P. 154
[SF3] MEQ OFFSET	P. 154
[SF4] PORTAMENTO	P. 154
[SF5] OTHER	P. 154
[F2] PLUG-IN COMMON OUTPUT	P. 154
OUTPUT	P. 154
[F3] PLUG-IN COMMON ARPEGGIO	P. 154
[SF1] TYPE	P. 154
[SF2] LIMIT	P. 154
[SF3] PLAY FX	P. 154
[SF5] CLEAR USER ARPEGGIO	P. 154
[F4] PLUG-IN COMMON CONTROLLER SET	P. 154
[SF1] SET1/2	P. 154
[SF2] MW	P. 154
[SF3] AT	P. 155
[SF4] AC	P. 155
[F6] PLUG-IN COMMON EFFECT	P. 155
[SF1] EFFECT CONNECT	P. 155
[SF2] INSERTION1	P. 155
[SF3] INSERTION2	P. 155
[SF4] REVERB	P. 155
[SF5] CHORUS	P. 155
[Element selection] PLUG-IN ELEMENT	P. 156
[F1] PLUG-IN ELEMENT OSCILLATOR	P. 156
[SF1] WAVE	P. 156
[SF5] OTHER	P. 156
[F2] PLUG-IN ELEMENT PITCH	P. 156
[F3] PLUG-IN ELEMENT FILETER	P. 156
[F4] PLUG-IN ELEMENT NATIVE PARAMETER	P. 156
[F5] PLUG-IN ELEMENT LFO	P. 157
[F6] PLUG-IN ELEMENT EQ	P. 157
[EDIT] VOICE COMPARE	P. 129
[JOB] VOICE JOB	P. 158
[F1] INITIALIZE	P. 158
[F2] EDIT RECALL	P. 158
[F3] COPY	P. 158
[F4] BULK DUMP	P. 159
[STORE] VOICE STORE	P. 159

Voice Play mode

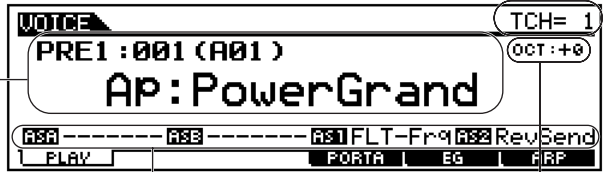
.....
Basic Structure (page 30) - Quick Start Guide (page 80)

In this mode, you can select and play individual Preset and User voices, as well as Plug-in voices (when installed).

NOTE For details about voice types and memory (bank) structure, see page 43.

◆ Basic Procedure

1 Press the [VOICE] button to enter the Voice Play mode. (The indicator lights.)



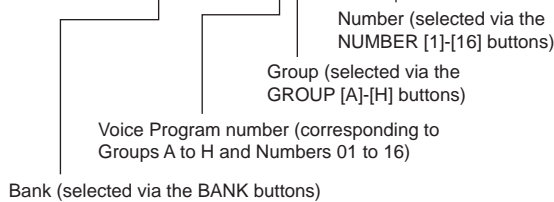
Indicates the functions assigned to the respective Control knobs. See pages 254 and 256 for details.

Indicates Keyboard Octave setting set via the [OCTAVE] buttons. See page 127 for details.

Indicates the current selected voice.

● Bank and Voice Program number

PRE1 : 001 (A01)



● Category and Voice name

AP: PowerGrand

Category Voice name

2 Select a voice.

3 Set the Keyboard Octave or MIDI transmit channel.

4 Select the menu you wish to edit by pressing the [F1] - [F6] buttons and edit the parameters in each display.

NOTE When the Plug-in voice is selected (when the Single part Plug-in board is installed), you can press the [F2] button to call up the BANK display.

5 Store the settings edited in step #4 to the User Memory as required.

6 Press any other mode button to exit from the Voice Play mode.

- For detailed instructions on steps #2 - #4, see the following explanations.

- For details on step #5, refer to “Voice Store mode” on page 159.

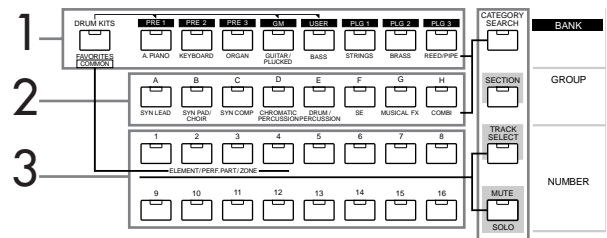
Voice Selection

The explanations here apply to step #2 of the Basic Procedure described above.

There are four ways in which you can select a Voice.

- Using the BANK, GROUP, NUMBER buttons
- Using the [INC/YES] and [DEC/NO] buttons
- Using the data dial
- Using the Category Search function

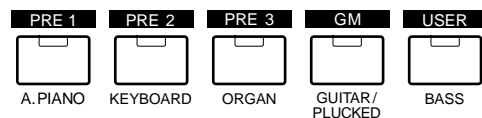
■ Using the BANK, GROUP, NUMBER buttons



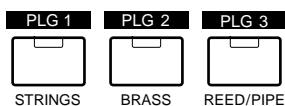
NOTE The explanations here apply when these four button indicators are off.

1 Press any of the BANK buttons to select a Bank.

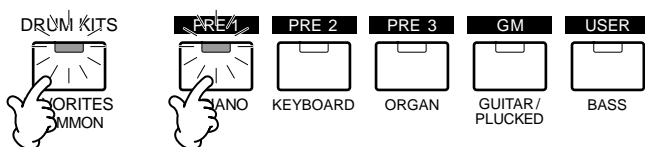
- To select a Normal voice, press any of the [PRE1] - [USER] buttons.



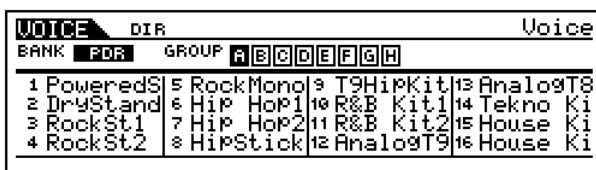
- To select a Plug-in voice, press any of the [PLG1] - [PLG3] buttons.



- To select a Drum voice, simultaneously hold the [DRUM KITS] button and press the [PRE1], [GM] or [USER] button.



The following display (or one similar) appears.



- Press any of the GROUP [A] - [H] buttons to select a Group.
- Press any of the NUMBER [1] - [16] buttons to select a Voice. The MOTIF returns back to the Voice Play display.

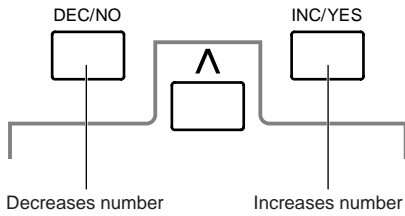


Voice program numbers and the corresponding Group/Numbers

Voice Program Number	Group	Number	Voice Program Number	Group	Number
001	A	1	065	E	1
002	A	2	066	E	2
003	A	3	067	E	3
004	A	4	068	E	4
005	A	5	069	E	5
006	A	6	070	E	6
007	A	7	071	E	7
008	A	8	072	E	8
009	A	9	073	E	9
010	A	10	074	E	10
011	A	11	075	E	11
012	A	12	076	E	12
013	A	13	077	E	13
014	A	14	078	E	14
015	A	15	079	E	15
016	A	16	080	E	16
017	B	1	081	F	1
018	B	2	082	F	2
019	B	3	083	F	3
020	B	4	084	F	4
021	B	5	085	F	5
022	B	6	086	F	6
023	B	7	087	F	7
024	B	8	088	F	8
025	B	9	089	F	9
026	B	10	090	F	10
027	B	11	091	F	11
028	B	12	092	F	12
029	B	13	093	F	13
030	B	14	094	F	14
031	B	15	095	F	15
032	B	16	096	F	16
033	C	1	097	G	1
034	C	2	098	G	2
035	C	3	099	G	3
036	C	4	100	G	4
037	C	5	101	G	5
038	C	6	102	G	6
039	C	7	103	G	7
040	C	8	104	G	8
041	C	9	105	G	9
042	C	10	106	G	10
043	C	11	107	G	11
044	C	12	108	G	12
045	C	13	109	G	13
046	C	14	110	G	14
047	C	15	111	G	15
048	C	16	112	G	16
049	D	1	113	H	1
050	D	2	114	H	2
051	D	3	115	H	3
052	D	4	116	H	4
053	D	5	117	H	5
054	D	6	118	H	6
055	D	7	119	H	7
056	D	8	120	H	8
057	D	9	121	H	9
058	D	10	122	H	10
059	D	11	123	H	11
060	D	12	124	H	12
061	D	13	125	H	13
062	D	14	126	H	14
063	D	15	127	H	15
064	D	16	128	H	16

■ Using the [INC/YES] and [DEC/NO] buttons

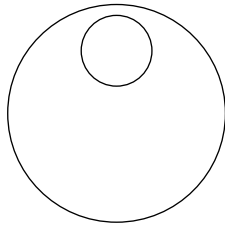
Pressing the [INC/YES] button increases the number by 1. Pressing the [DEC/NO] button decreases the number by 1.



Use the [INC/YES] and [DEC/NO] buttons to step up or down through the available voices. Naturally, this also lets you switch to the next available Group, up or down. For example, if the currently selected voice is A16, pressing the [INC/YES] button selects Voice B01. Hold either button down to continuously scroll through the voices.

■ Using the data dial

Rotating the data dial to the right (clockwise) increases voice number, while rotating it to the left (counter-clockwise) decreases it. This control works in the same way as the [INC/YES] and [DEC/NO] buttons, but lets you scroll through the voices more quickly.

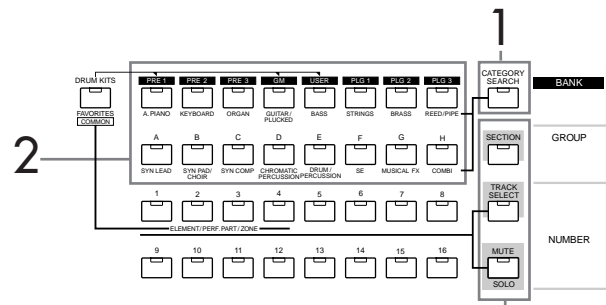


This convenient feature lets you select voices according to their instrument type or application. The voices are divided into sixteen different categories, and these category keywords often give you a clear idea of the characteristics of a voice that might not be apparent from its name.

■ Using the Category Search function

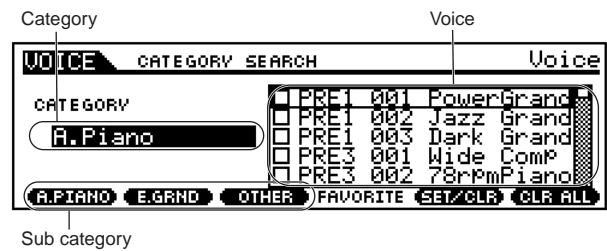
Category Search lets you quickly locate the type of voice you need, regardless of its bank location. For example, by specifying the A. PIANO category, you can instantly call up a list of all the available piano-type voices contained in the MOTIF, and select the desired piano voice from the list.

The MOTIF also features a “Favorites” category, to which you can assign your favorite voices. This is convenient especially in live performance situations, giving you quick access to often-used voices — no matter what their particular category or bank.



NOTE The explanations here apply when these four button indicators are off.

- 1 Press the [CATEGORY SEARCH] button so that its indicator lights. The following Voice category display appears.

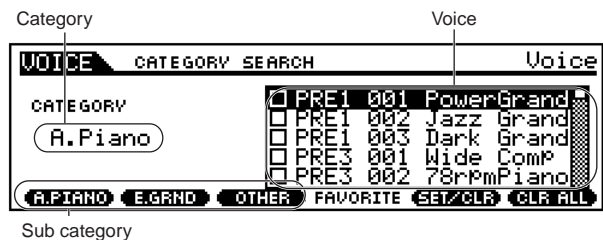


- 2 Press any of the [PLG1] - [PLG3] and the [A] - [H] buttons to select a Category. The first voice in the selected category is called up by this operation.

NOTE The voice categories are printed below the [PLG1] - [PLG3] and [A] - [H] buttons.

NOTE Sub categories are listed at the bottom of the Voice category display. Pressing the [F1] - [F6] buttons call up the first voice in the selected category.

- 3 Press the Cursor [▶] button to move the cursor to the voice.

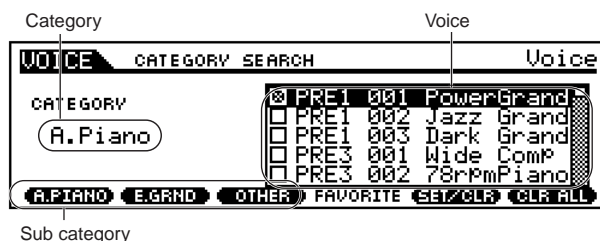


- 4 Select a voice by using the data dial.

● Favorite Category

1~4 Use the same operation as in “Using the Category Search function” above.

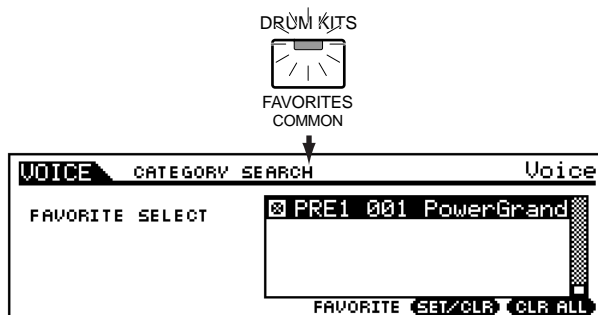
5 Select your favorite voice and press the [F5] button to assign it to the Favorite Category.



NOTE To remove the selected voice from the Favorite Category, simply press the [F5] button again.

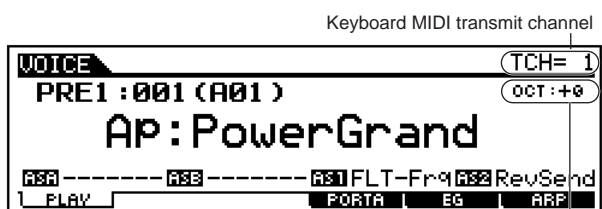
6 Set other voices to the Favorite Category as required.

7 Press the [FAVORITE] button to see the voices set to the Favorite Category in steps #5 - 6.



Keyboard Octave and Keyboard MIDI transmit channel settings

The explanations here apply to step #3 of the Basic Procedure on page 124. The two parameters set here affect all selected voices. However, these parameters cannot be stored to the voice by using the Voice Store mode (page 159).

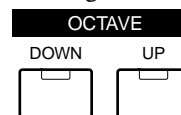


Keyboard octave setting

■ Keyboard octave setting

The [OCTAVE] buttons allow the keyboard to be transposed up or down by one octave. Pressing the

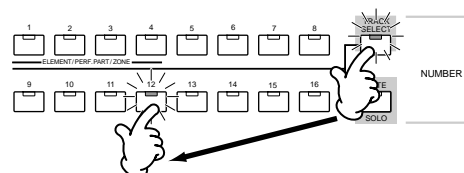
[UP] and the [DOWN] buttons together at the same time will return the setting to the initial value (0).



NOTE The MOTIF 8 has no [OCTAVE] buttons.

■ Keyboard MIDI transmit channel setting

Press the [TRACK SELECT] button so that its indicator lights, and press any of the NUMBER [1] - [16] buttons to change the Keyboard MIDI transmit channel.



NOTE You can set this parameter also in the Utility mode (page 258). This parameter cannot be stored in the Voice Store mode.

Voice editing in the Voice Play mode

The explanations here apply to step #4 of the Basic Procedure on page 124.

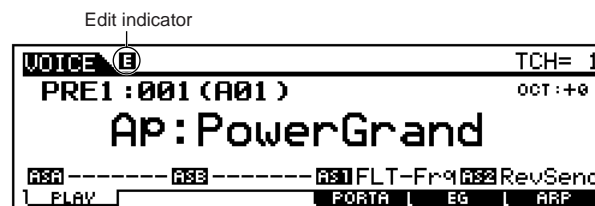
The Voice Play mode lets you perform a variety of general editing operations on the selected voice. For more detailed and comprehensive editing operations, use the Voice Edit mode.

NOTE When a Plug-in voice is selected, some parameters cannot be edited.

NOTE The parameters that have the same name in the Voice Play mode and in the Voice Edit mode have the same functions and settings.

◆ The [E] Indicator

If you alter any parameters in the Voice Play mode, the [E] indicator will appear in the top left of the display. This indicates that the current voice has been modified but not yet stored.



⚠ CAUTION

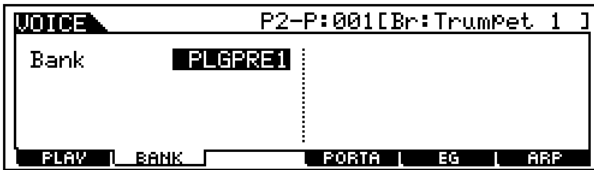
If you select another voice during editing, the [E] indicator will disappear and all your edits will be lost. It is a good idea to store the edited voice data from the Voice Store mode (page 159). Even if you lose the voice edited data, you can restore it by using the Edit Recall function (page 158).

● [F2] Voice Play **Plug-in Bank**

From this display you can select the particular bank on the Plug-in board, and determine whether you will be using a Plug-in voice or a “Board” voice. Simply put, the difference between the two types of voices is this:

- Board voices are unprocessed, unaltered voices of the Plug-in board — the “raw material” for Plug-in voices.
- Plug-in voices are edited Board voices — voices that have been specially programmed and processed for optimum use with the MOTIF.

For more details, see page 153.

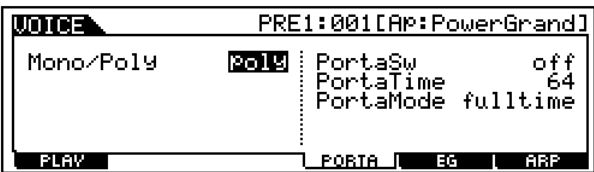


- ❑ Settings When a Plug-in voice using the Plug-in board installed to slot 1 is selected: PLG1USR (User Plug-in voice), PLGPRE1 (Preset Plug-in voice), 032/000 ... (Indicates the Bank Select MSB/LSB of the Board voice. These values differ depending on the installed Plug-in board)

NOTE This display is available only when the Plug-in board is installed to the MOTIF and the Plug-in voice is selected.

● [F4] Voice Play **Portamento**

From this display you can select monophonic or polyphonic playback and set the Portamento parameters. Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next.



● **Mono/Poly**

- Determines whether the Voice is played back monophonically (single notes only) or polyphonically (multiple simultaneous notes).
- ❑ Settings Mono, Poly

● **PortaSw**

- Determines whether Portamento is on or off.
- ❑ Settings off, on

● **PortaTime**

- Determines the pitch transition time. Higher values result in longer transition times.
- ❑ Settings 0 ~ 127

● **PortaMode**

- Determines the Portamento mode. The behavior of the Portamento varies depending on whether Mono/Poly is set to “mono” or “poly.”
- ❑ Settings fingered, fulltime

When Mono/Poly is set to “mono”:

With the “fingered” setting, Portamento is only applied when you play legato (playing the next note before releasing the previous one). With the “fulltime” setting, Portamento is always applied.

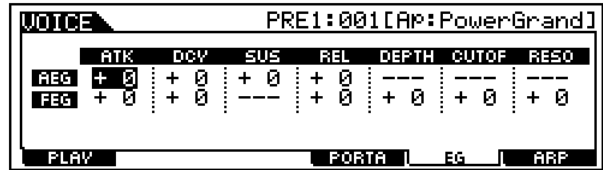
When Mono/Poly is set to “poly”:

This is the same as for “mono,” except that Portamento is applied to multiple notes.

● [F5] Voice Play **EG (Envelope Generator)**

Basic Structure (page 46)

This display contains the basic EG settings, both volume and filter, for the voice, as well as the filter’s cutoff frequency and resonance settings. The settings made here are applied as offsets to the AEG and FEG settings in the Voice Edit mode.



The full names of the available parameters are shown in the chart below, as they appear in the display.

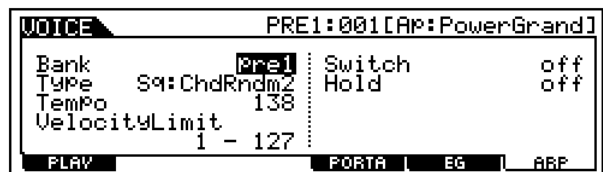
	ATK	DCV	SUS	REL	DEPTH	CUTOFF	RESO
AEG	Attack time	Decay time	Sustain level	Release Time	---	---	---
FEG			---		Depth	Cutoff frequency	Resonance

- ❑ Settings -64 ~ 0 ~ +63 (except --- above)

● [F6] Voice Play **Arpeggio**

Basic Structure (page 55)

This display contains the basic settings for Arpeggio playback, including Type and Tempo.



● **Bank**

- Determines the Bank.
- ❑ Settings pre1, pre2, user

● **Type**

- Determines the Arpeggio type. The two-letter prefix before the name indicates the general Arpeggio category.

- **Tempo**

Determines the Arpeggio Tempo. When MIDI sync (page 258) is turned on, “MIDI” is displayed here and cannot be set.

□ Settings 1 ~ 300

- **Velocity Limit**

Determines the lowest and highest velocity in the Arpeggio’s velocity range. The Arpeggio plays when you play the note with the velocity in this range.

□ Settings 1 ~ 127

NOTE Keys played outside the set limit sound normally without any Arpeggio.

- **Switch**

Determines whether Arpeggio is on or off. You can also turn Arpeggio on/off from the front panel with the [ARPEGGIO ON/OFF] button.

□ Settings off, on

- **Hold**

Determines whether the Arpeggio playback is “held” or not. When this is set to “on,” the Arpeggio cycles automatically, even if you release your fingers from the keys, and it continues to cycle until the next key is pressed.

□ Settings off, on

Voice Edit mode

In this mode, Normal Voices and Drum Voices can be created and edited.

There are three kinds of Voices: Normal Voices, Drum Voices and Plug-in Voices (if a Plug-in board has been installed). The following section shows how to edit the different kinds of voices and explains the parameters available.

◆ The [E] Indicator

If you alter any parameters in Voice Edit Mode, the [E] indicator will appear in the top left of the display. This indicates that the current voice has been modified but not yet stored.

NOTE Even if you exit to the Voice Play mode, your edited settings for the current voice will be maintained — as long as you don’t select another voice.

NOTE The [E] indicator is also displayed in the Voice Play mode.

◆ The Compare Function

This convenient function lets you switch between the edited voice and its original, unedited condition — allowing you to listen to the difference between the two and better hear how your edits affect the sound.

- 1 In the Voice Edit mode, press the [COMPARE] button so that its indicator flashes. The [E] indicator is shown at the top of the display (in place of the [E] indicator), and the original, unedited voice is restored for monitoring.



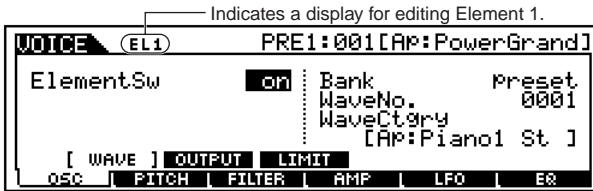
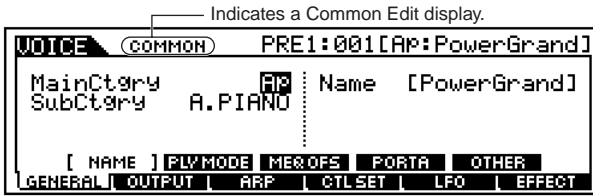
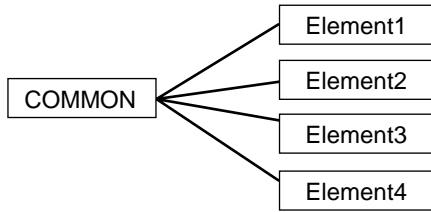
- 2 Press the [EDIT] button again to disable the “Compare” function and restore the settings for your edited Voice.

NOTE While Compare is active, you cannot make edits to the voice.

Normal Voice Edit

◆ Common edit and Element edit

A Voice can consist of up to four elements (page 42). Use Common Edit to edit the settings common to all four elements. There are two types of Voice Edit displays: those for Common Edit, and those for editing individual elements.

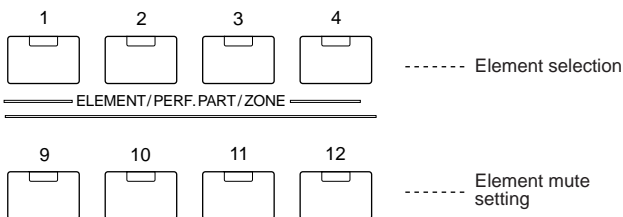


◆ Basic Procedure

- 1 Press the [VOICE] button to enter the Voice Play mode. (The indicator lights.)
- 2 Select a Normal voice to be edited.
- 3 Press the [EDIT] button to enter the Voice Edit mode. (The indicator lights.)
- 4 Select an element to be edited.
 - To edit parameters common to all four elements, press the [DRUM KITS] button (which serves as a “COMMON” button here).



- To edit parameters of the individual elements, select the desired element with the corresponding NUMBER button ([1] - [4]).



You can mute other elements (those you aren't editing and don't wish to hear) by using the NUMBER [9] - [12] buttons. Sounded elements are indicated by lit buttons; the indicator of the button corresponding to the sounded element lights.

- 5 Select the menu you wish to edit by pressing the [F1] - [F6] and [SF1] - [SF5] buttons.
- 6 Edit the parameters for the selected voice.
- 7 Store the settings edited in step #6 to the User Memory as required.
- 8 Press the [EXIT] button to exit from the Voice Edit mode.
 - For details on [step #2](#), refer to “Voice Play mode” on page 124.
 - For detailed instructions on [steps #5 - #6](#), see the explanations below.
 - For details on [step #7](#), refer to “Voice Store mode” on page 159.

■ Common edit

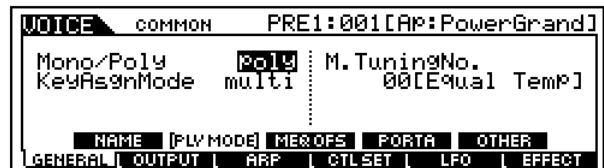
- **[F1]-[SF1] Normal Common General Name**
Basic operation (page 75)

From this display you can assign the category (sub and main) of the selected voice, and create a name for the voice. The voice name can contain up to 10 characters. For detailed instructions on naming a voice, see “Basic Operation” on page 75.



- **[F1]-[SF2] Normal Common General Play mode**

From this display you can make various settings for the tone generator of the MOTIF, and assign different Micro Tuning settings.



● **Mono/Poly**

Determines whether the Voice is played back monophonically (single notes only) or polyphonically (multiple simultaneous notes).

- Settings Mono, Poly

● **KeyAsgnMode**

When this is set to “single,” double playback of the same note is prevented. This is useful when two or more instances of the same note are received nearly simultaneously, or without a corresponding note off message. To allow playback of each instance of the same note, set this to “multi.”

- Settings single, multi

● **MicroTuning**

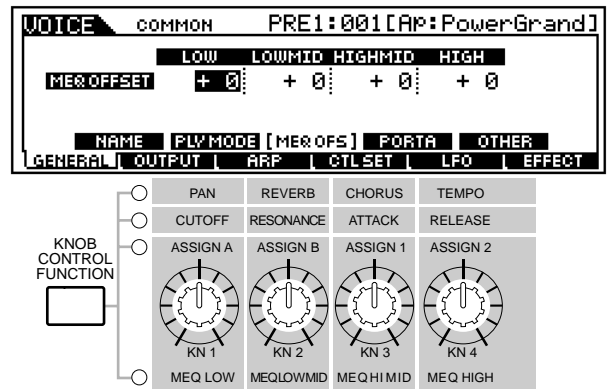
Determines the tuning system for the voice. Normally, this should be set to 00 (Equal temperament); however thirty-one additional tuning systems are available for a variety of tuning applications and effects.

- Settings See below.

No.	Type	Key	Comments
00	Equal temperament		The “compromise” tuning used for most of the last 200 years of Western music, and found on most electronic keyboards. Each half step is exactly 1/12 of an octave, and music can be played in any key with equal ease. However, none of the intervals are perfectly in tune.
01-12	Pure major	C-B	This tuning is designed so that most of the intervals (especially the major third and perfect fifth) in the major scale are pure. This means that other intervals will be correspondingly out of tune. You need to specify the key (C-B) you will be playing in.
13-24	Pure minor	A-G#	The same as Pure Major, but designed for the minor scale.
25	Werckmeister		Andreas Werckmeister, a contemporary of Bach, designed this tuning so that keyboard instruments could be played in any key. Each key has a unique character.
26	Kirnberger		Johann Philipp Kirnberger was also concerned with tempering the scale to allow performances in any key.
27	Vallotti & Young		Francescatonio Vallotti and Thomas Young (both mid-1700s) devised this adjustment the Pythagorean tuning which the first six fifths are lower by the same amount.
28	1/4 shifted		This is the normal equal tempered scale shifted up 50 cents.
29	1/4 tone		Twenty-four equally spaced notes per octave. (Play twenty-four notes to move one octave.)
30	1/8 tone		Forty-eight equally spaced notes per octave. (Play forty-eight notes to move one octave.)
31	Indian	C-B	Usually observed in the Indian music (white keys [C-B] only).

● **[F1]-[SF3] Normal Common General Master EQ Offset**

From this display you can adjust the master (global) EQ settings for the entire voice. The settings made here are applied as offsets to the EQ settings (with the exception of “MID”) in the Utility mode, page 253.



- Settings -64 ~ 0 ~ +63

● **[F1]-[SF4] Normal Common General Portamento**

This display allows you to set the Portamento related parameters. Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next.



● **Switch**

Determines whether Portamento is on or off.

- Settings off, on

● **Time**

Determines the pitch transition time. Higher values result in a longer pitch change time, when Time Mode below is set to “Time.” (When Time Mode is set to “Rate,” higher values result in a faster pitch change time.)

- Settings 0 ~ 127

● **Mode**

Determines the Portamento mode. With the “fingered” setting, Portamento is only applied when you play legato (playing the next note before releasing the previous one). With the “fulltime” setting, Portamento is always applied.

- Settings fulltime, fingered

● **TimeMode**

This determines how the Time parameter above affects the Portamento effect. Setting this to “Time” makes the above parameter a true time scale — the higher the value, the longer the time. The “Rate” setting simply reverses this, for a rate scale — the higher the value, the faster the rate (in other words, the shorter the time). Naturally, you should set this to your own personal preference, depending on whether you think of Portamento in terms of time or rate.

- Settings rate, time

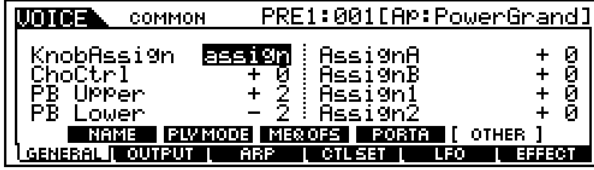
rate

Sets the Time parameter range to reflect “rate”:
0 (slow) - 127 (fast)

time
Sets the Time parameter range to reflect "time":
0 (fast) - 127 (slow)

● **[F1]-[SF5] Normal Common General Other**

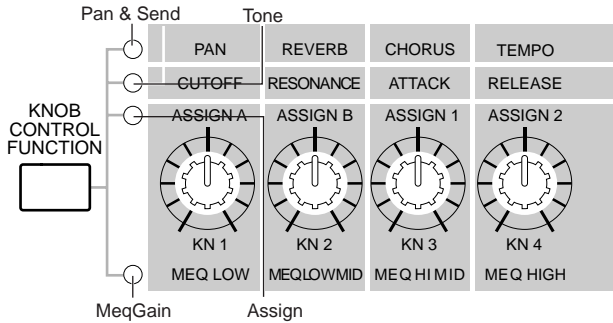
From this display you can set the control functions for the Knobs, and determine the up/down range for the Pitch Bend wheel.



● **Knob Assign**

Determines the function for the assignable Knobs (1-4). Pressing the [KNOB CONTROL FUNCTION] button on the panel sets the desired function row, which is automatically stored to memory with the currently selected voice.

□ Settings 0 ~ 127



● **ChoCtrl**

Determines the depth of the Chorus effect, as controlled by the Knob assigned to Chorus Send.

□ Settings -64 ~ 63

● **PBUpper, PBLower**

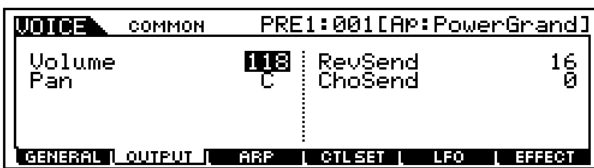
These two parameters determine the pitch change range of the Pitch Bend wheel.

□ Settings -48 ~ 24

● **Assign A, Assign B, Assign 1, Assign 2**

This lets you directly set and memorize the value for each Assign Knob (A, B, 1, and 2), from the Knob itself. Simply tweak the knob to the desired setting.

● **[F2] Normal Common Output**



● **Volume**

Determines the output level of the Voice.

□ Settings 0 ~ 127

● **Pan**

Determines the stereo pan position of the Voice. You can also adjust this parameter using the PAN knob on the front panel.

□ Settings L63 (Left) ~ C (Center) ~ R63 (Right)

● **RevSend**

Determines the Send level of the signal sent from Insertion Effect 1/2 (or the bypassed signal) to the Reverb effect. You can also adjust this parameter using the REVERB knob on the front panel.

□ Settings 0 ~ 127

● **ChoSend**

Determines the Send level of the signal sent from Insertion Effect 1/2 (or the bypassed signal) to the Chorus effect. You can also adjust this parameter using the [CHORUS] knob on the front panel of the MOTIF.

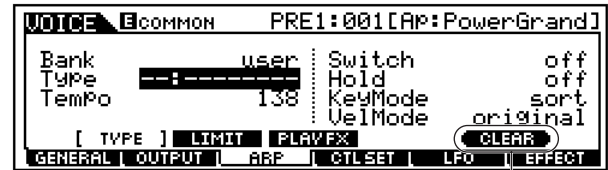
□ Settings 0 ~ 127

● **[F3]-[SF1] Normal Common Arpeggio Arpeggio type**

Basic Structure (page 55)

The basic parameters (e.g., type, tempo) of the Arpeggio are provided in this display.

When user arpeggio is selected, you can clear the selected arpeggio data by using the [SF5] button.



This appears only when user arpeggio is selected and cursor is located at Type.

● **Bank**

Determines the Bank.

□ Settings pre1, pre2, user

● **Type**

Determines the Arpeggio type. The two-letter prefix before the name indicates the general Arpeggio category.

● **Tempo**

Determines the Arpeggio Tempo. When MIDI sync (page 258) is turned on, "MIDI" is displayed here and cannot be set.

□ Settings 1 ~ 300

● **Switch**

Determines whether Arpeggio is on or off. You can also turn Arpeggio on/off from the front panel with the [ARPEGGIO ON/OFF] button.

□ Settings off, on

• Hold

Determines whether the Arpeggio playback is “held” or not. When this is set to “on,” the Arpeggio cycles automatically, even if you release your fingers from the keys, and it continues to cycle until the next key is pressed.

- Settings sync-off (see below), off, on

sync-off

The first time you press a key, the first note of the arpeggiator pattern is played. From the second and subsequent key presses, the arpeggiator note that is played back depends on the arpeggiator tempo and the timing of the arpeggio pattern. For example, in the case of a 1-bar arpeggio pattern, if the second key press falls on the third beat of the bar, the arpeggio pattern plays back from the third beat onward. In other words, the first key press is used to start the arpeggio pattern and thereafter you can use the key to “mute” or “un-mute” the pattern by, respectively, holding it down or releasing it. This is particularly useful when the arpeggiator is being used to generate drum patterns.

• KeyMode

Determines how the Arpeggio plays back when playing the keyboard. Three modes are available.

- Settings sort, thru, direct

sort

Plays back notes in ascending order from the lowest key pressed to the highest.

thru

Plays back notes in the order in which the keys are pressed.

direct

Plays back the notes exactly as you play them. If changes to Voice parameters (such as Pan or Cutoff frequency) are included in the Arpeggio sequence data, they will be applied and reproduced whenever the Arpeggio plays back.

NOTE If the Arpeggio Category is set to Ct, you will not hear any sounds unless you select “direct” here.

NOTE With the “sort” and “thru” settings, the order in which notes are played back will depend on the Arpeggio sequence data.

• VelMode

This determines the playback velocity of the Arpeggio, or how it responds to your own playing strength. Two modes are available: original and thru.

- Settings original, thru

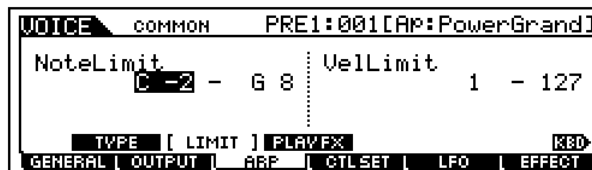
original

The Arpeggio plays back at the preset velocities.

thru

The Arpeggio plays back according to the velocity of your playing. For example, if you play the notes strongly, the playback volume of the Arpeggio increases.

• [F3]-[SF2] Normal Common Arpeggio Arpeggio limit



• Note Limit

Determines the lowest and highest notes in the Arpeggio’s note range. Notes played in this range trigger the Arpeggio.

- Settings C-2 ~ G8

NOTE You can also create a lower and an upper trigger range for the Arpeggio, with a “hole” in the middle, by specifying the highest note first. For example, setting a Note Limit of “C5-C4” lets you trigger the Arpeggio by playing notes in the two ranges of C-2 to C4 and C5 to G8; notes played between C4 and C5 have no effect on the Arpeggio.

NOTE You can also set the range directly from the keyboard, by holding down the [INFORMATION] button and pressing the desired low and high keys.

• Velocity Limit

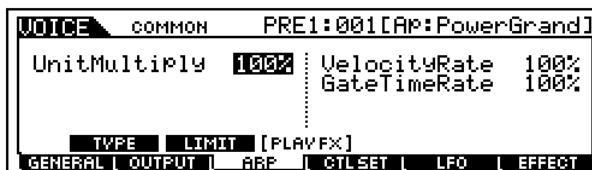
Determines the lowest and highest velocity in the Arpeggio’s velocity range. This lets you control when the Arpeggio sounds by your playing strength.

- Settings 1 ~ 127

NOTE You can also create separate low and high trigger ranges for the Arpeggio playback, with a velocity “hole” in the middle, by specifying the maximum value first. For example, setting a Velocity Limit of 93 - 34 lets you play the Arpeggio from two separate velocity ranges: soft (1 - 34) and hard (93 - 127). Notes played at middle velocities between 35 and 92 do not play the Arpeggio.

• [F3]-[SF3] Normal Common Arpeggio Play FX (Effect)

These Play Effect parameters let you control the playback of the Arpeggio in useful and interesting ways. By changing the timing and velocity of the notes, you can change the rhythmic “feel” of the Arpeggio.



• Unit

Adjust the Arpeggio playback time. For example, if you set a value of 200%, the playback time will be doubled and the tempo halved. On the other hand, if you set a value of 50%, the playback time will be halved and the tempo doubled. Normal playback time is 100%.

- Settings 50%, 66%, 75%, 100%, 133%, 150%, 200%

• **Velocity Rate**

Determines how much the Velocity of the Arpeggio playback is offset from the original value. For example, a setting of 100 % means the original values are used. Settings below 100 % will reduce the velocity of the Arpeggio notes, whereas settings above 100 % will increase the velocities.

- Settings 0 % ~ 200 %

NOTE The Velocity cannot be decreased or increased beyond its normal range of 1 to 127; any values outside that range will automatically be limited to the minimum or maximum.

• **Gate Time Rate**

Determines how much the Gate Time (length) of the Arpeggio notes is offset from the original value. A setting of 100 % means the original values are used. Settings below 100 % will shorten the gate times of the Arpeggio notes, whereas settings above 100 % will lengthen them.

- Settings 0 % ~ 200 %

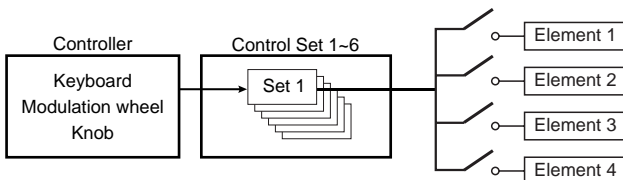
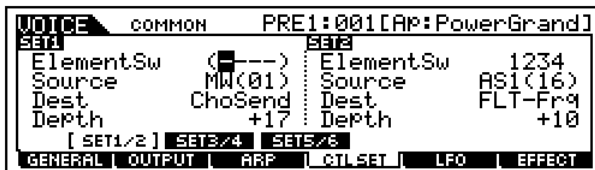
NOTE The Gate Time cannot be decreased beyond its normal minimum of 1; any values outside that range will automatically be limited to the minimum.

• **[F4]-[SF1], [SF2], [SF3] Normal Common Control Set Set1/2, Set3/4, Set5/6**

Basic Structure (page 48)

The controllers and knobs on the front panel can be used to change and adjust a variety of parameters — in real time, and simultaneously.

For example, keyboard aftertouch can be used to control vibrato and the Modulation Wheel could be used to control Resonance. They can even be used to control parameters within individual Elements. These control assignments are called “Control Sets.” You can assign up to six different Control Sets per Voice. The six individual Control Sets are divided into pairs in the display: Sets 1/2, Sets 3/4 and Sets 5/6.



• **ElementSw**

Determines whether or not the selected controller affects each individual element.

- Settings Elements 1 to 4 enabled (“1” to “4”) or disabled (“-”)

NOTE This parameter is disabled if the Destination parameter below is set to a value from 00 to 33.

• **Source**

Determines which panel controller is to be assigned and used for the selected Set. This controller then is used to control the parameter set in Destination below.

- Settings PB (Pitch Bend Wheel), MW (Modulation Wheel), AT (After Touch), FC1 (Foot Controller 1), FC2 (Foot Controller2), FS (Footswitch), BC (Breath Controller), KN1 (Knob ASSIGN 1), KN2 (Knob ASSIGN 2)

NOTE Keep in mind that unlike the other controllers, the ASSIGN A and B knobs can each be assigned to one common function for the entire Voice mode, and not to different functions for each individual voice. Also see the Utility mode (page 256).

• **Dest (Destination)**

Determines the parameter that is controlled by the Source controller (above).

- Settings For a complete list of the available parameters/controls, refer to the separate Data List booklet.

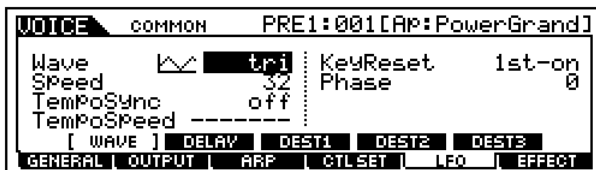
• **Depth**

Determines the degree to which the Source controller affects the Destination parameter. For negative values, the controller operation is reversed; maximum controller settings produce minimum parameter changes.

- Settings -64 ~ 0 ~ +63

● [F5]-[SF1] Normal Common LFO Wave Basic Structure (page 47)

From this display you can make a variety of LFO-related settings, including Wave, Speed, Tempo, and sync/phase settings.



• Wave

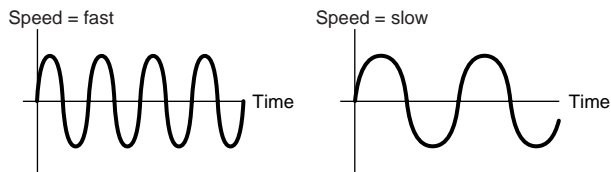
Determines the LFO Wave.

- Settings tri, tri +, sawup, sawdown, squ1/4, squ1/3, squ, squ2/3, squ3/4, trpzp, S/H 1, S/H 2, user

• Speed

Determines the speed of the LFO Wave modulation. Higher values result in faster modulation speeds.

- Settings 0 ~ 63



• Tempo Sync

Determines whether or not the LFO is synchronized to the tempo of the Arpeggio or sequencer (song or pattern). Setting this to “on” allows you to keep the LFO effects in perfect sync with the Arpeggio or sequencer playback.

- Settings off (not synchronized), on (synchronized)

• Tempo Speed

This parameter is available only when Tempo Sync above has been set to “on.” It allows you to make detailed note value settings that determine how the LFO pulses in sync with the Arpeggio or sequencer.

- Settings 16th, 8th/3 (eighth-note triplets), 16th (dotted sixteenth notes), 8th 4th/3 (quarter-note triplets), 8th (dotted eighth notes), 4th (quarter notes), 2nd/3 (half-note triplets), 4th (dotted quarter notes), 2nd (half notes), whole/3 (whole-note triplets), 2nd (dotted half notes), 4th x 4 (quarter-note quadruplets; four quarter notes to the beat), 4th x 5 (quarter-note quintuplets; five quarter notes to the beat), 4th x 6 (quarter-note sextuplets; six quarter notes to the beat), 4th x 7 (quarter-note septuplets; seven quarter notes to the beat), 4th x 8 (quarter-note octuplets; eight quarter notes to the beat)

NOTE The actual length of the note depends on the internal or external MIDI tempo setting.

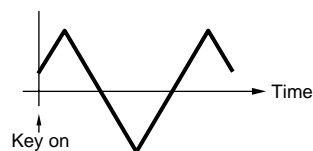
• Key On Reset

Determines whether or not the LFO is reset each time a note is pressed. The following three settings are available.

- Settings off, each-on, 1st-on

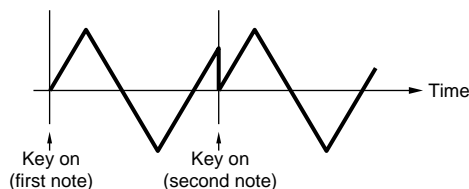
off

The LFO cycles freely with no key synchronization. Pressing a key starts the LFO wave at whatever phase the LFO happens to be at that point.



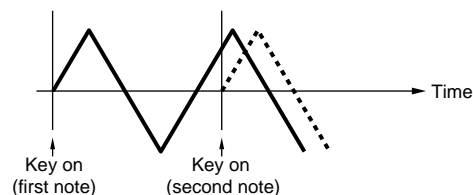
each-on

The LFO resets with each note you play and starts a waveform at the phase specified by the Phase parameter (below).



1st-on

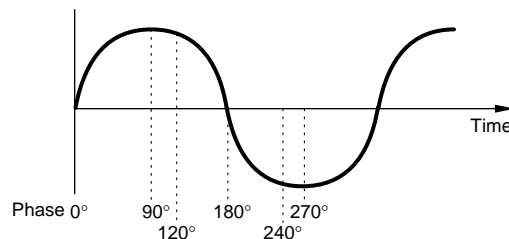
The LFO resets with every note you play and starts the waveform at the phase specified by the Phase parameter (below). However, if you play a second note while the first is being held, the LFO continues cycling according to the same phase as triggered by the first note. In other words, the LFO only resets if the first note is released before the second is played.



• Phase

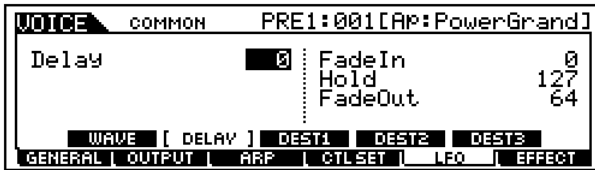
Determines the starting phase point for the LFO Wave when a note is played.

- Settings 0, 90, 120, 180, 240, 270



● **[F5]-[SF2] Normal Common LFO Delay**

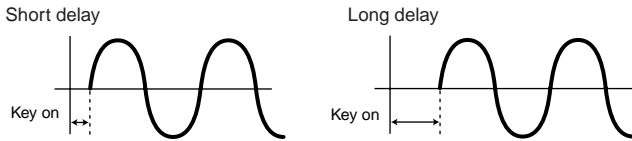
From this display you can set various delay and fade-in/-out parameters, and give the LFO a more natural sound.



● **DelayTime**

Determines the delay time before the LFO comes into effect. A higher value results in a longer delay time.

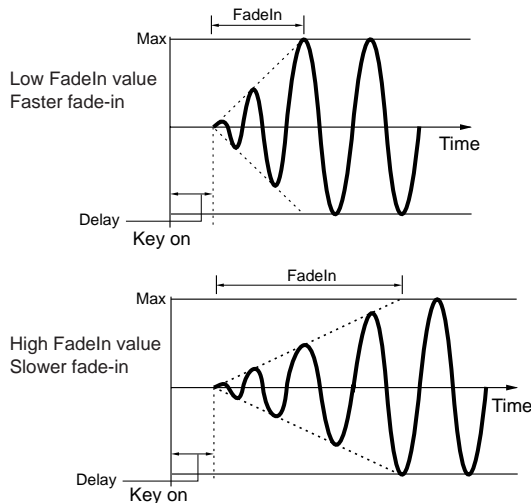
□ Settings 0 ~ 127



● **FadeInTime**

Determines the amount of time for the LFO effect to fade in (after the Delay time has elapsed). A higher value results in a slower fade-in.

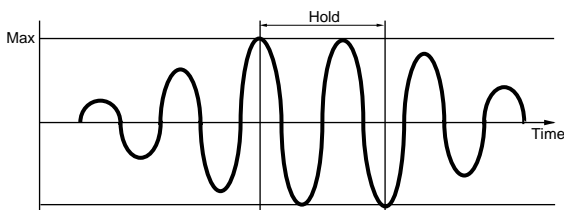
□ Settings 0 ~ 127



● **HoldTime**

Determines the length of time during which the LFO is held at its maximum level. A higher value results in a longer Hold time.

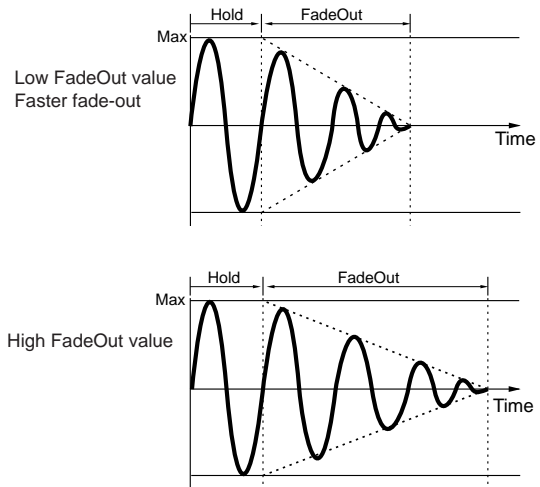
□ Settings 0 ~ 127



● **FadeOutTime**

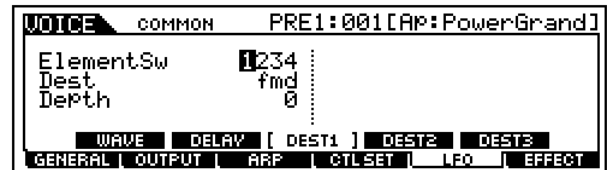
Determines the amount of time for the LFO effect to fade out (after the Delay time has elapsed). A higher value results in a slower fade-out.

□ Settings 0 ~ 127



● **[F5]-[SF3], [SF4], [SF5] Normal Common LFO Destination 1, 2, 3**

From this display you can select the destination parameter for the LFO (which aspect of the sound the LFO controls), the elements to be affected by the LFO, and the LFO Depth. Three Destinations can be assigned, and you can choose from several parameters per Destination.



● **ElemSw (Element Switch)**

Determines whether or not each element is to be affected by the LFO. The element number (1-4) is shown when the LFO is enabled; a dash (-) indicates the LFO is disabled for that element.

● **Dest (Destination)**

Determines the parameters which are to be controlled (modulated) by the LFO Wave.

□ Settings AMD, PMD, FMD, RESO (Resonance), PAN, ELFOSpd (Element LFO Speed)

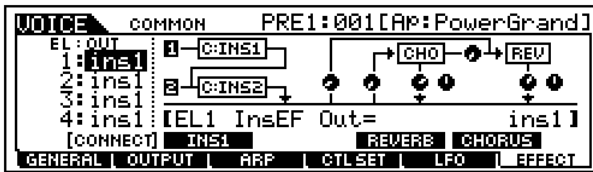
● **Depth**

Determines the LFO Wave Depth.

□ Settings 0 ~ 127

● [F6]-[SF1] Normal Common Effect Connection

This display gives you comprehensive control over the effects.



● EL: OUT 1-4 (Element 1-4 Effect Output)

Determines which Insertion effect (1 or 2) is used to process each individual element. The “thru” setting lets you bypass the Insertion effects for the specific element. (This parameter is the same as “InsEFOut” in Normal Element below. Making a setting here automatically changes the setting of that parameter as well.)

□ Settings ins1, ins2, thru

● InsConnect (Insertion Effect Connect)

Determines the effect routing for Insertion effects 1 and 2. The setting changes are shown on the diagram in the display, giving you a clear picture of how the signal is routed.

□ Settings parallel, 1 to 2, 2 to 1

● Ins1Category, Ins1Type

Determines the effect type for Insertion 1.

□ Settings Refer to the Effect Types list in the separate Data List booklet.

● Ins2Category, Ins2Type

Determines the effect type for Insertion 2.

□ Settings Refer to the Effect Types list in the separate Data List booklet.

● RevType (Reverb Effect Type)

Determines the effect type for Reverb.

□ Settings Refer to the Effect Types list in the separate Data List booklet.

● ChoType (Chorus Effect Type)

Determines the effect type for Chorus.

□ Settings Refer to the Effect Types list in the separate Data List booklet.

● RevSend (Reverb Send)

Determines the level of the sound (from Insertion 1 or 2, or the bypassed signal) that is sent to Reverb effect. A setting of “0” results in no Reverb processing of the sound.

□ Settings 0 ~ 127

● ChoSend (Chorus Send)

Determines the level of the sound (from Insertion 1 or 2, or the bypassed signal) that is sent to Chorus effect. A setting of “0” results in no Chorus processing of the sound.

□ Settings 0 ~ 127

● RevRtn (Reverb Return Level)

Determines the Return level of the Reverb Effect.

□ Settings 0 ~ 127

● ChoRtn (Chorus Return Level)

Determines the Return level of the Chorus Effect.

□ Settings 0 ~ 127

● ChoToRev (Chorus to Reverb)

Determines the Send level of the signal sent from the Chorus Effect to the Reverb Effect.

□ Settings 0 ~ 127

● RevPan (Reverb Pan)

Determines the pan position setting for the Reverb effect.

□ Settings L63 (far left) ~ cnt (center) ~ R63 (far right)

● ChoPan (Chorus Pan)

Determines the pan position setting for the Chorus effect.

□ Settings L63 (far left) ~ cnt (center) ~ R63 (far right)

● [F6]-[SF2], [SF3], [SF4], [SF5] Normal Common Effect Parameter Insertion 1, 2, Reverb, Chorus

The number of parameters and values available differs depending on the currently selected effect type. For more information, see the Effect Type List in the separate Data List booklet.

■ Element Edit

For instructions on selecting and editing individual elements, refer to step #4 in the Basic Procedure on page 124.

● [F1]-[SF1] Normal Element Oscillator Wave

Basic Structure (page 44)

From this display you can select the desired wave or sound used for the element.



● ElementSw (Element Switch)

Determines whether the currently selected element is on or off.

□ Settings off (inactive), on (active)

● Bank

This determines the specific bank of waves, from which you can select the desired sound. The Preset bank features the factory programmed waves; the User bank contains any audio data you have created with the Sampling function (page 58).

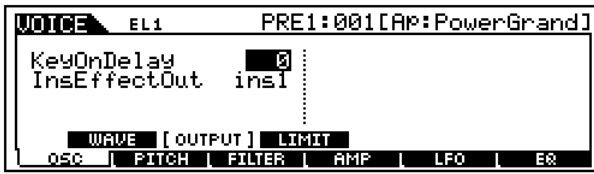
□ Settings preset, usr wav

● Wave No. (Wave Number), WaveCtgr (Wave Category)

□ Settings See the Wave list of the separate Data List.

● [F1]-[SF2] Normal Element Oscillator Output

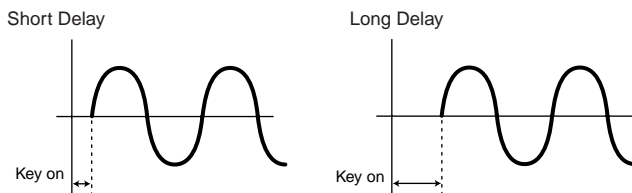
From this display you can set certain output parameters for the selected element.



• KeyOnDelay

Determines the time (delay) between the moment you press a note on the keyboard and the point at which the sound is played. You can set different delay times for each Element.

□ Settings 0 ~ 127



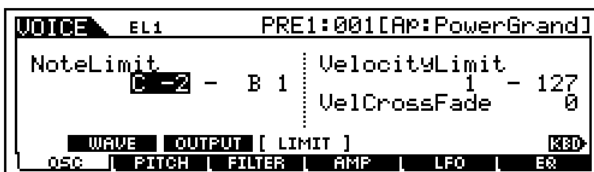
• InsEFOut (Insertion Effect Output)

Determines which Insertion effect (1 or 2) is used to process each individual element. The “thru” setting lets you bypass the Insertion effects for the specific element. (This parameter is the same as “EL: OUT” in Normal Common above. Making a setting here automatically changes the setting of that parameter as well.)

□ Settings thru, ins1 (Insertion Effect 1), ins2 (Insertion Effect 2)

● [F1]-[SF3] Normal Element Oscillator Limit

From this display you can create different key and velocity “zones” for each of the elements, and even set up a velocity crossfade between elements.



• NoteLimit

Determines the lowest and highest notes of the keyboard range for each element. The selected element will sound only when you play notes within this range.

□ Settings C -2 ~ G8

NOTE You can also create a lower and an upper range for the element, with a “hole” in the middle, by specifying the highest note first. For example, setting a Note Limit of “C5 - C4” lets you play the element from two separate ranges: C -2 to C4 and C5 to G8. Notes played between C4 and C5 do not play the selected element.

NOTE You can also set the range directly from the keyboard, by holding down the [INFORMATION] button and pressing the desired low and high keys. See “Basic Operation” on page 75.

• VelocityLimit

Determines the minimum and maximum values of the velocity range within which each element will respond. Each element will only sound for notes played within its specified velocity range.

For example, this lets you have one element sound when you play softly and have a different one sound when you play strongly.

□ Settings 1 ~ 127

NOTE You can also create separate low and high ranges for the element, with a velocity “hole” in the middle, by specifying the maximum value first. For example, setting a Velocity Limit of 93 - 34 lets you play the element from two separate velocity ranges: soft (1 - 34) and hard (93 - 127). Notes played at middle velocities between 35 and 92 do not play the selected element.

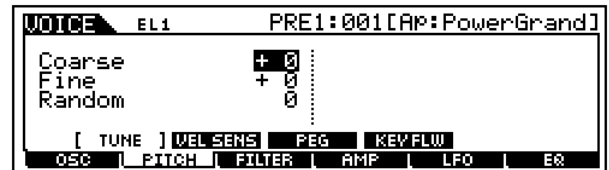
• VelCrossFade (Velocity Cross Fade)

This determines how smoothly or abruptly elements switch between each other in response to velocity. (This only applies to elements that have been set for velocity splits with Velocity Limit above.) Minimum values create an abrupt change between elements, while maximum values let you smoothly change elements depending on your playing strength.

□ Settings 0 ~ 127

● [F2]-[SF1] Normal Element Pitch Tune

From this display you can set various pitch-related parameters for the selected element.



• Coarse

Determines the pitch of each element in semitones.

□ Settings -48 ~ 0 ~ +48

• Fine

Determines the fine tuning for the pitch of each element.

□ Settings -64 ~ 0 ~ +63

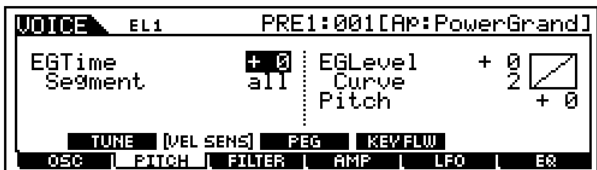
• Random

This lets you randomly vary the pitch of the element for each note you play. This is effective in reproducing the natural pitch variations in acoustic instruments. It is also useful for creating unusual random pitch changes. The higher the value the greater the pitch variation. A value of “0” results in no pitch change.

□ Settings 0 ~ 127

● **[F2]-[SF2] Normal Element Pitch Velocity Sensitivity**

From this display you can determine how the Pitch EG responds to velocity. (For Pitch EG settings, see “PEG Time, Level” below.)



● **EG Time, Segment**

Determines the velocity sensitivity of the PEG’s Time parameters. Select the Segment, then set its Time parameter. Positive Time settings will play back the specified Segment faster and negative values will play it back slower.

- Settings Time -64 ~ 0 ~ +63
- Segment ATK, ATK + DCY, DCY, ATK + RLS, all

ATK

EG Time Value affects Attack time.

ATK + DCY

EG Time Value affects Attack/Decay1 time.

DCY

EG Time Value affects Decay time.

ATK + RLS

EG Time Value affects Attack/Release time.

all

EG Time Value affects all PEG Time parameters.

● **EG Level, Curve**

Determines the velocity sensitivity of the PEG Level. Positive settings will cause the level to rise the harder you play the keyboard, and negative values will cause it to fall. The Curve parameter lets you select from five different preset velocity curves (graphically indicated in the display), that determine how velocity affects the Pitch EG.

- Settings EG Level -64 ~ 0 ~ +63
- Curve 0 ~ 4

● **Pitch**

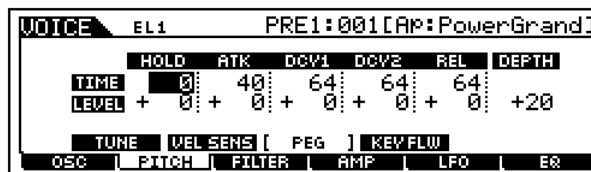
Determines the degree to which velocity affects the pitch change of the Pitch EG. Extreme values produce greater variation in pitch change. For positive values, the harder you play the keys, the greater the change in pitch. For negative values, the softer you play the keys, the greater the change in pitch.

- Settings -64 ~ 0 ~ +63

● **[F2]-[SF3] Normal Element Pitch PEG Time, Level**

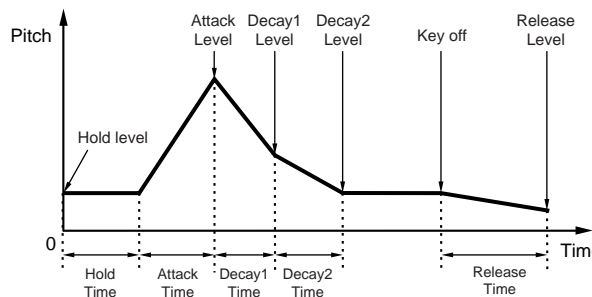
Basic Structure (page 46)

From this display you can make all the time and level settings for the Pitch EG, which determine how the pitch of the sound changes over time. These can be used to control the change in pitch from the moment a note is pressed on the keyboard to the moment the sound stops.



The full names of the available parameters are shown in the chart below, as they appear in the display.

	HOLD	ATK	DCY1	DCY2	REL	DEPTH*
TIME	Hold time	Attack time	Decay 1 time	Decay 2 time	Release time	
LEVEL	Hold level	Attack level	Decay 1 level	Decay 2 level	Release level	Depth



● **TIME**

- Settings 0 ~ 127

● **LEVEL**

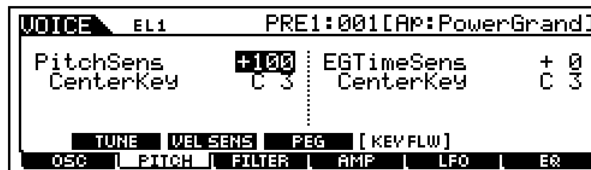
- Settings -128 ~ 0 ~ +127 (-4800cent ~ 0 ~ +4800cent)

● **DEPTH***

- Settings -64 ~ 0 ~ +63

● **[F2]-[SF4] Normal Element Pitch Key Follow**

From this display you can set the Key Follow effect — in other words, how the pitch of the element and its Pitch EG respond to the particular notes (or octave range) you play.



● **PitchSens (Pitch Sensitivity)**

Determines the degree to which the notes (specifically, their position or octave range) affect the pitch of the selected element. The Center Key (next parameter) is used as the basic pitch for this parameter.

A positive setting will cause the pitch of lower notes to change lower and that of higher notes to change higher. Negative values will have the opposite effect.

- Settings -200% ~ 0 ~ +200%

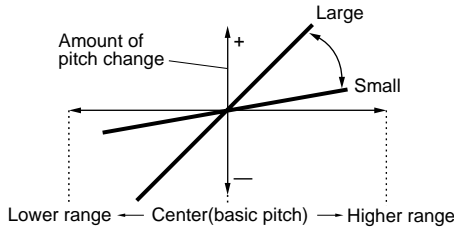
NOTE For a setting of 100%, neighboring notes are pitched one semitone (100 cents) apart.

• **Center Key**

Determines the central note or pitch for the Key Follow effect on pitch. Depending on the Pitch Sensitivity parameter above, the further away from the Center Key the keys are played, the greater the degree of pitch change.

☐ Settings C -2 ~ G8

NOTE You can also set the Center Key directly from the keyboard, by holding down the [INFORMATION] button and pressing the desired key. See “Basic Operation” on page 75.



• **EG Time Sens (EG Time Sensitivity)**

Determines the degree to which the notes (specifically, their position or octave range) affect the Pitch EG times of the selected element. The Center Key (next parameter) is used as the basic pitch for this parameter.

A positive setting will cause the pitch of lower notes to change slower and that of higher notes to change faster. Negative values will have the opposite effect.

☐ Settings -64 ~ 0 ~ +63

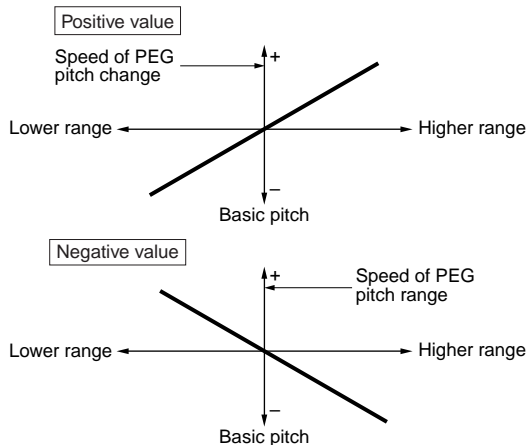
• **Center Key**

Determines the central note or pitch for the Key Follow effect on Pitch EG. Depending on the EG Time Sensitivity parameter above, the further away from the Center Key the keys are played, the more the time of the Pitch EG deviates from the norm.

When the Center Key note is played, the PEG behaves according to its actual settings. The pitch change characteristics for other notes will vary in proportion to the EG Time settings.

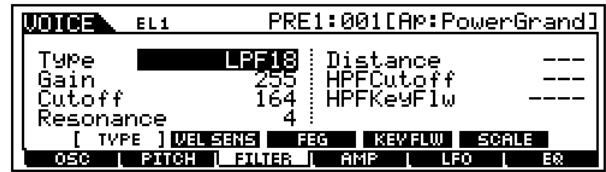
☐ Settings C -2 ~ G8

NOTE You can also set the Center Key directly from the keyboard, by holding down the [INFORMATION] button and pressing the desired key.



• **[F3]-[SF1] Normal Element Filter Type**
Basic Structure (page 46)

From this display you can make comprehensive settings for the Filter section. The available parameters differ depending on which Filter type is selected here.



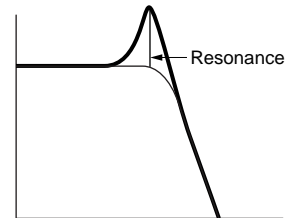
• **Type**

Basically, there are four different Filter types: an LPF (Low Pass Filter), an HPF (High Pass Filter), a BPF (Band Pass Filter) and a BEF (Band Elimination Filter). Each type has a different frequency response and produces a different effect on the sound. The MOTIF also features special combination Filter types, for additional sonic control.

☐ Settings See below.

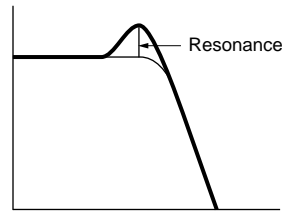
LPF24D (Low Pass Filter 24dB/oct Digital)

A 4-pole (-24db/oct) dynamic LPF with a strong resonance.



LPF24A (Low Pass Filter 24dB/oct Analog)

A 4-pole (-24db/oct) dynamic LPF with a character similar to those found on analog synthesizers

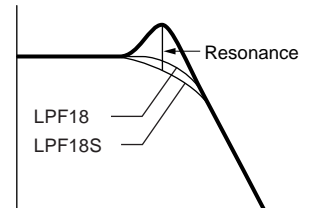


LPF18 (Low Pass Filter 18dB/oct)

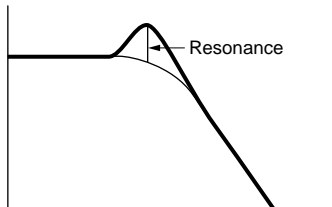
A 3-pole (-18db/oct) dynamic LPF.

LPF18s (Low Pass Filter 18dB/oct Staggered)

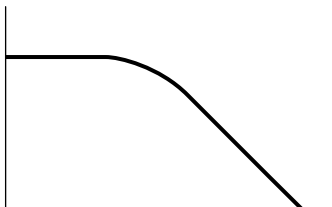
Also a 3-pole (-18db/oct) dynamic LPF, but with a shallower frequency curve.



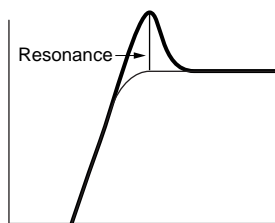
LPF12 (Low Pass Filter 12dB/oct) A 2-pole (-12db/oct) dynamic LPF, designed to be used in combination with an HPF (High Pass Filter).



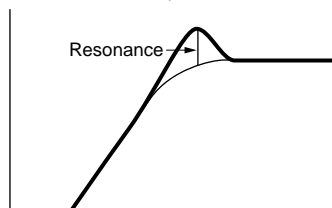
LPF6 (Low Pass Filter 6dB/oct) A 1-pole (-6db/oct) dynamic LPF with no resonance, designed to be used in combination with an HPF (High Pass Filter).



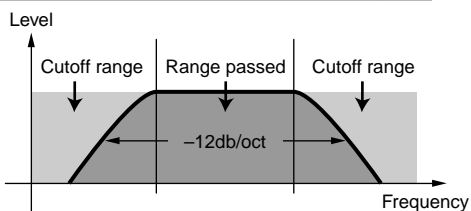
HPF24D (High Pass Filter 24dB/oct Digital) A 4-pole (-24db/oct) dynamic HPF with a strong resonance.



HPF12 (High Pass Filter 12dB/oct) A 2-pole (-12db/oct) dynamic HPF.

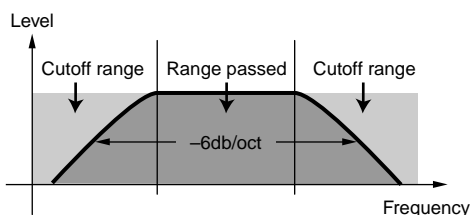


BPF12D (Band Pass Filter 12dB/oct Digital)



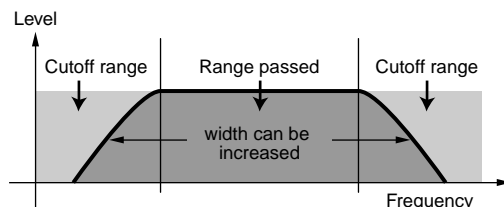
BPF12s (Band Pass Filter 12dB/oct Staggered) Basically same as BPF12D, but with a shallower frequency curve.

BPF6 (Band Pass Filter 6dB/oct)



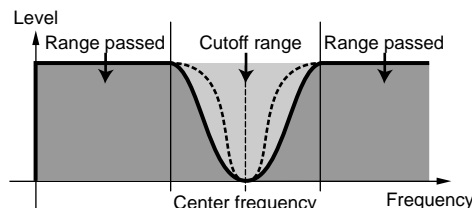
BPFw (Band Pass Filter Wide)

Also the combination of -12dB/oct HPF and LPF, but allows a wider frequency band.



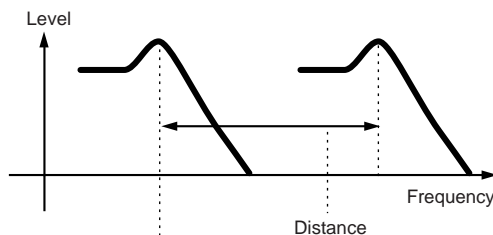
BEF12 (Band Elimination Filter 12dB/oct)

BEF6 (Band Elimination Filter 6dB/oct)



Dual LPF

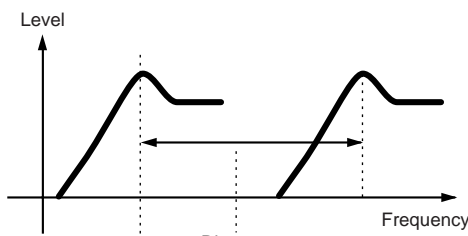
A combination of two sets of -12dB/oct LPF in parallel.



The cutoff frequency can be set directly on the display.

Dual HPF

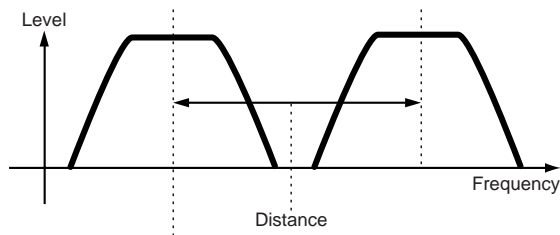
A combination of two sets of -12dB/oct HPF in parallel.



The cutoff frequency can be set directly on the display.

Dual BPF

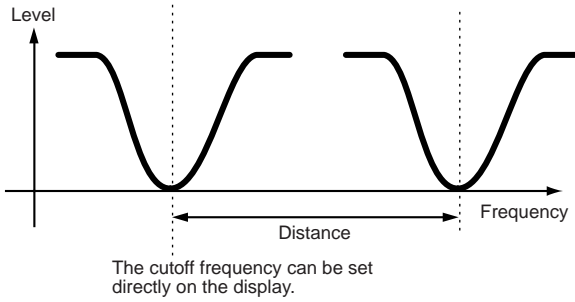
A combination of two sets of -6dB/oct BPF in parallel.



The cutoff frequency can be set directly on the display.

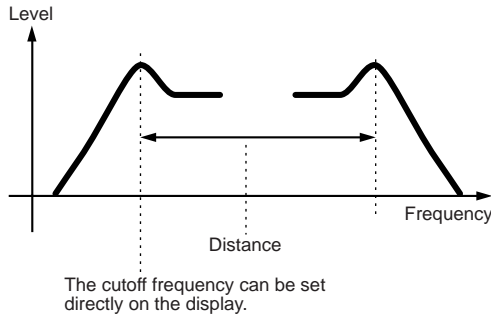
Dual BEF

A combination of two sets of -6dB/oct BEF in parallel.



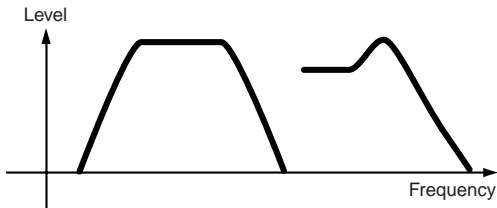
LPF12 (Low Pass Filter 12dB/oct) + HPF12 (High Pass Filter)

A combination of a LPF and HPF.



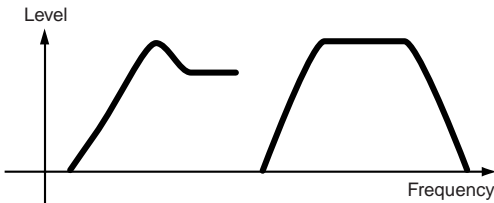
LPF12 (Low Pass Filter 12dB/oct) + BPF6 (Band Pass Filter)

A combination of a LPF and BPF.



HPF12 (High Pass Filter 12dB/oct) + BPF6 (Band Pass Filter)

A combination of a HPF and BPF.



thru

The filters are bypassed and the entire signal is unaffected.

• **Cutoff**

Determines the cutoff frequency for the Filter, or the central frequency around which the Filter is applied.

☐ Settings 0 ~ 255

• **Gain**

Determines the Gain (the amount of boost applied to the signal sent to the Filter).

☐ Settings 0 ~ 255

• **Reso/Width**

This parameter's function varies according to the selected Filter Type. If the selected filter is an LPF, HPF, BPF (excluding the BPFw), or BEF, this parameter is used to set the Resonance. For the BPFw, it is used to adjust the Width of the band.

Resonance

This parameter is used to set the amount of Resonance (harmonic emphasis) applied to the signal at the cutoff frequency. This can be used in combination with the cutoff frequency parameter to add further character to the sound.

Width

With the BPFw, this parameter is used to adjust the width of the band of signal frequencies passed by the filter.

☐ Settings 0 ~ 31

• **Distance**

Determines the distance between the Cutoff frequencies, for the Dual Filter types. (The two filters in a combination are connected in parallel fashion.)

☐ Settings 0 ~ 255

• **HPF Cutoff**

Determines the central frequency for the Key Follow parameter (below) of the HPF.

When a filter type "LPF12" or "LPF6" is selected, this parameter is available.

☐ Settings 0 ~ 255

• **HPF KeyFlw (Key Follow)**

Determines the Key Follow setting for the HPF Cutoff frequency. This parameter varies the center frequency according to the position of the notes played on the keyboard. A positive setting will raise the center frequency for higher notes and lower it for lower notes. A negative setting will have the opposite effect.

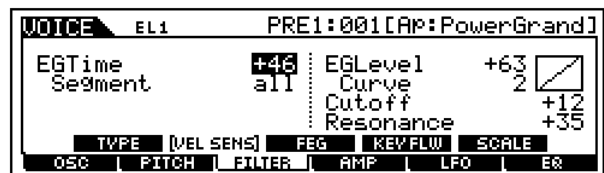
When a filter type "LPF12" or "LPF6" is selected, this parameter is available.

☐ Settings -200% ~ 0 ~ +200%

● **[F3]-[SF2] Normal Element Filter Velocity Sensitivity**

Basic Structure (page 47)

From this display you can determine how the Filter and the FEG respond to velocity. (For Filter EG settings, see "FEG" below.)



• EG Time, Segment

Determines the velocity sensitivity of the FEG's Time parameters. Select the Segment, then set its Time parameter.

Positive Time settings will play back the specified Segment faster and negative values will play it back slower.

- ☐ Settings Time -64 ~ 0 ~ +63
- Segment ATK, ATK + DCY, DCY, ATK + RLS, all

ATK

Affects the Attack Time.

ATK + DCY

Affects the Attack Time and Decay1 Time.

DCY

Affects the Decay Time.

ATK + RLS

Affects the Attack Time and Release Time.

all

Affects all FEG Time parameters.

• EG Level, Curve

Determines the velocity sensitivity of the Filter EG Level. Positive settings cause greater Filter changes the harder you play the keyboard. Negative settings do the opposite; the softer you play, the more the sound changes. The Curve parameter lets you select from five different preset velocity curves (graphically indicated in the display), that determine how velocity affects the Filter EG.

- ☐ Settings EG Level -64 ~ 0 ~ +63
- Curve 0 ~ 4

• Cutoff

Determines the degree to which velocity affects the Cutoff frequency of the Filter EG. Extreme values produce greater variation in the Cutoff frequency. For positive values, the harder you play the keys, the greater the change in the Cutoff frequency. Negative values do the opposite; the frequency changes more the softer you play.

- ☐ Settings -64 ~ 0 ~ +63

• Resonance

Determines the degree to which velocity affects the Resonance of the Filter EG. Extreme values produce greater variation in the Resonance. For positive values, the harder you play the keys, the greater the Resonance change. Negative values do the opposite; the Resonance changes more the softer you play.

- ☐ Settings -64 ~ 0 ~ +63

• [F3]-[SF3] Normal Element Filter FEG (Filter Envelope Generator)

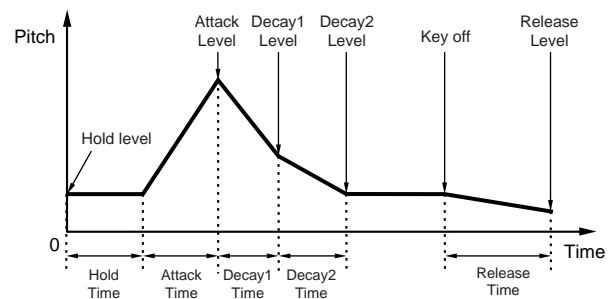
Basic Structure (page 47)

From this display you can make all the time and level setting for the Filter EG, which determine how the tonal quality of the sound changes over time.

HOLD		ATK	DCY1	DCY2	REL	DEPTH
TIME	0	63	104	117	113	
LEVEL	+49	+52	+39	+0	+0	+63
TYPE VEL SENS [FEG] KEVFLW SCALE						
OSC PITCH FILTER AMP LFO EG						

The full names of the available parameters are shown in the chart below, as they appear in the display.

	HOLD	ATK	DCY1	DCY2	REL	DEPTH*
TIME	Hold time	Attack time	Decay 1 time	Decay 2 time	Release time	
LEVEL	Hold level	Attack level	Decay 1 level	Decay 2 level	Release level	Depth



• TIME

- ☐ Settings 0 ~ 127

• LEVEL

- ☐ Settings -128 ~ 0 ~ +127 (-9600cent ~ 0 ~ +9600cent)

• DEPTH*

- ☐ Settings -64 ~ 0 ~ 63

• [F3]-[SF4] Normal Element Filter Key Follow

From this display you can set the Key Follow effect for the Filter — in other words, how the tonal qualities of the element and its Filter EG respond to the particular notes (or octave range) you play.

NOTE The availability of the Filter Key Follow parameter depends on the Break Point and Offset settings described on page 144.

CutoffSens		EGTimeSens
+56	+16	
CenterKey (C 3)	CenterKey B 1	
TYPE VEL SENS [FEG] [KEVFLW] SCALE		
OSC PITCH FILTER AMP LFO EG		

• **CutoffSens (Cutoff Sensitivity)**

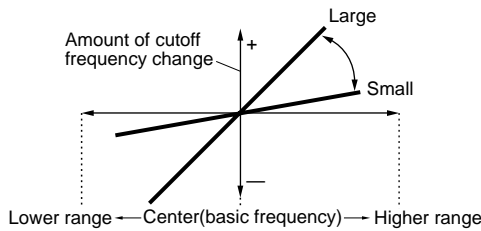
Determines the degree to which the notes (specifically, their position or octave range) affect the Filter of the selected element. A Center Key setting of C3 is used as the basic setting by the Cutoff parameter.

A positive setting will lower the Cutoff frequency for lower notes and raise it for higher notes. A negative setting will have the opposite effect.

□ Settings -200% ~ 0 ~ +200%

• **CenterKey**

This indicates that the central note for Cutoff Sensitivity above is C3. At C3, the tone remains unchanged. For other notes played, the Cutoff Frequency varies according to the particular note and the Cutoff Sensitivity setting. Keep in mind that this is for display purposes only; the value cannot be changed.



• **EGTimeSens (EG Time Sensitivity)**

Determines the degree to which the notes (specifically, their position or octave range) affect the Filter EG times of the selected element.

The basic speed of change for the FEG is at the note specified in the Center Key (next parameter).

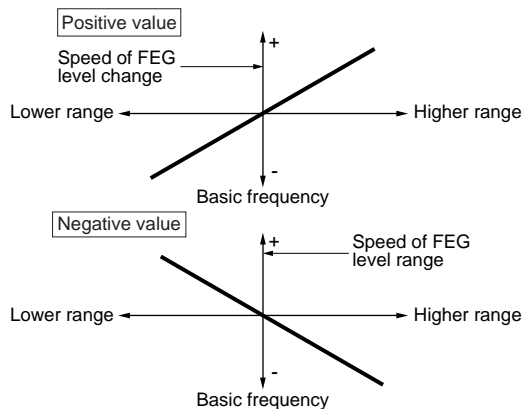
A positive setting will cause slower changes for lower notes and faster changes for higher notes. A negative setting will have the opposite effect.

□ Settings -64 ~ 0 ~ +63

• **CenterKey**

Determines the central note or pitch for the Key Follow effect on Filter EG. Depending on the EG Time Sensitivity parameter above, the further away from the Center Key the keys are played, the more the time of the Filter EG deviates from the norm. When the Center Key note is played, the FEG behaves according to its actual settings. The Filter change characteristics for other notes will vary in proportion to the EG Time settings.

□ Settings C-2 ~ G8



NOTE You can also set the Center Key directly from the keyboard, by holding down the [INFORMATION] button and pressing the desired key. See “Basic Operation” on page 75.

• **[F3]-[SF5] Normal Element Filter Scaling**

Filter Scaling controls the filter cutoff frequency according to the positions of the notes on the keyboard. You can divide the entire keyboard by four break points, and assign different offset values of Cutoff Frequency to them respectively.

VOICE EL1		PRE1:001[AP:PowerGrand]	
BREAKPOINT	1	2	3
OFFSET	C#1	D#2	C 3
	- 4	+ 10	+ 17
			A 4
			+ 4
TYPE VEL SENS FEG KEY FLW SCALE			
OSC PITCH FILTER AMP LFO EG			

• **BREAK POINT 1 ~ 4**

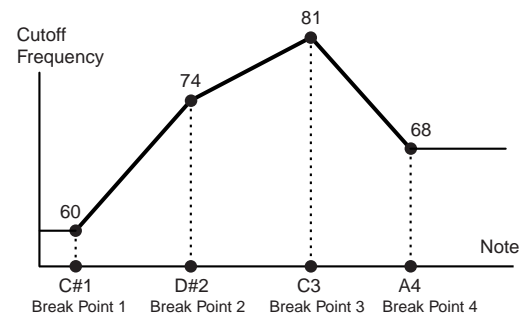
□ Settings C-2 ~ G8

NOTE You can also set the Break Point directly from the Keyboard, by holding down the [INFORMATION] button and pressing the desired key. See “Basic Operation” on page 75.

• **OFFSET 1 ~ 4**

□ Settings -128 ~ 0 ~ +127

The best way to understand Filter Scaling is by example. For the settings shown in the example display above, the basic Cutoff frequency value is 64, and the various Offset values at the selected Break point settings change that basic value accordingly. The specific changes to the Cutoff frequency are shown in the diagram below. The Cutoff frequency changes in a linear fashion between successive Break Points as shown.



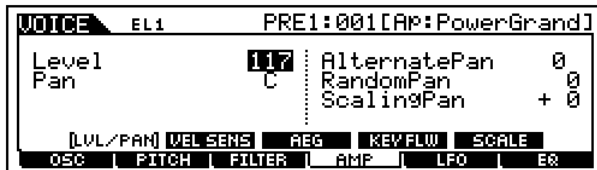
NOTE BP1 to BP4 will be automatically be arranged in ascending order across the keyboard.

NOTE Regardless of the size of these Offsets, the minimum and maximum Cutoff limits (values of 0 and 127, respectively) cannot be exceeded.

NOTE Any note played below the BP1 note results in the BP1 Level setting. Likewise, any note played above the BP4 note results in the BP4 Level setting.

● **[F4]-[SF1] Normal Element Amplitude Level/Pan**

This display not only lets you make basic Level and Pan settings for each individual element, it also gives you some detailed and unusual parameters for affecting Pan position.



● **Level**

Determines the output level for the selected element.

- Settings 0 ~ 127

● **Pan**

Determines the stereo Pan position for the selected element. This will also be used as the basic Pan position for the Alternate, Random and Scale settings.

- Settings L63 (Left) ~ C (Center) ~ R63 (Right)

● **AlternatePan**

Determines the amount by which the sound of the selected element is panned alternately left and right for each note you press. The Pan setting (above) is used as the basic Pan position.

- Settings L64 ~ 0 ~ R63

● **RandomPan**

Determines the amount by which the sound of the selected element is panned randomly left and right for each note you press. The Pan setting is used as the Center Pan position.

- Settings 0 ~ 127

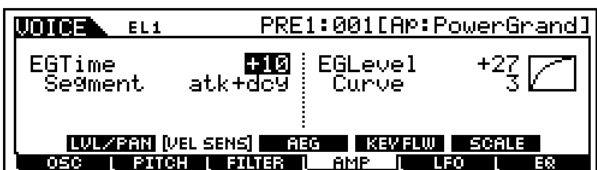
● **ScalingPan**

Determines the degree to which the notes (specifically, their position or octave range) affect the Pan position, left and right, of the selected element. At note C3, the main Pan setting (above) is used for the basic Pan position.

- Settings -64 ~ 0 ~ +63

● **[F4]-[SF2] Normal Element Amplitude Velocity Sensitivity**

From this display you can determine how the Amplitude (volume) EG responds to velocity. (For Amplitude EG settings, see “AEG” below.)



● **EG Time, Segment**

Determines the velocity sensitivity of the AEG’s Time parameters. Select the Segment, then set its Time parameter.

Positive Time settings will play back the specified Segment faster and negative values will play it back slower.

- Settings Time -64 ~ 0 ~ +63
Segment ATK, ATK + DCY, DCY, ATK + RLS, all

ATK

Affects the Attack Time.

ATK + DCY

Affects the Attack Time and Decay1 Time.

DCY

Affects the Decay Time.

ATK + RLS

Affects the Attack Time and Release Time.

all

Affects all AEG Time parameters.

● **EG Level, Curve**

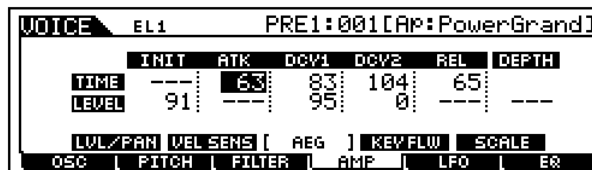
Determines the velocity sensitivity of the Amplitude EG Level. Positive settings cause greater volume changes the harder you play the keyboard. Negative settings do the opposite; the softer you play, the more the volume changes. The Curve parameter lets you select from five different preset velocity curves (graphically indicated in the display), that determine how velocity affects the Amplitude EG.

- Settings EG Level -64 ~ 0 ~ +63
Curve 0 ~ 4

● **[F4]-[SF3] Normal Element Amplitude AEG**

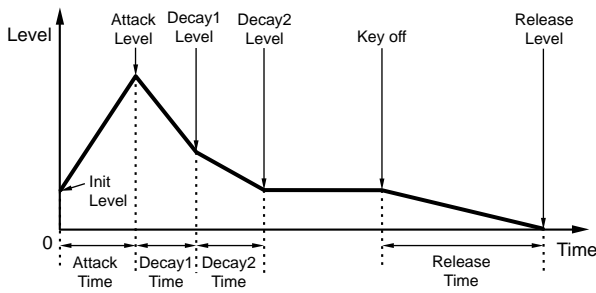
Basic Structure (page 47)

From this display you can make all the time and level settings for the Amplitude EG, which determine how the volume of the sound changes over time.



The full names of the available parameters are shown in the chart below, as they appear in the display.

	INIT	ATK	DCY1	DCY2	REL	DEPTH
TIME	---	Attack time	Decay 1 time	Decay 2 time	Release time	
LEVEL	Initial level	---	Decay 1 level	Decay 2 level	---	---



• TIME

□ Settings 0 ~ 127 (excluding --- above)

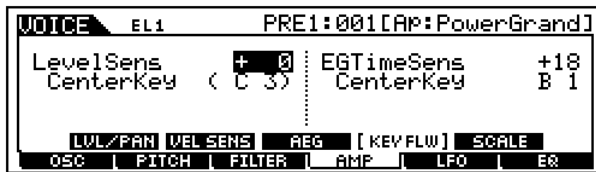
• LEVEL

□ Settings 0 ~ 127

● [F4]-[SF4] Normal Element Amplitude Key Follow

From this display you can set the Key Follow effect for Amplitude — in other words, how the volume of the element and its Amplitude EG respond to the particular notes (or octave range) you play.

NOTE The availability of the Amplitude Key Follow parameter depends on the Break Point and Offset settings described on see below.



• LevelSens (Level Sensitivity)

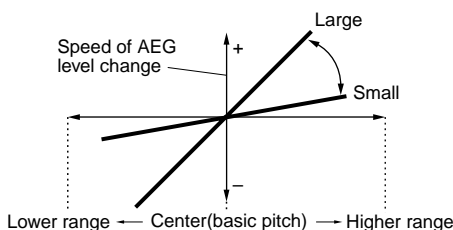
Determines the degree to which the notes (specifically, their position or octave range) affect the volume of the selected element. A Center Key setting of C3 is used as the basic setting.

A positive setting will lower the output level for lower notes and raise it for higher notes. A negative setting will have the opposite effect.

□ Settings -200% ~ 0 ~ +200%

• CenterKey

This indicates that the central note for Level Sensitivity above is C3. At C3, the volume (level) remains unchanged. For other notes played, the volume varies according to the particular note and the Level Sensitivity setting. Keep in mind that this is for display purposes only; the value cannot be changed.



• EGTimeSens (EG Time Sensitivity)

Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG times of the selected element. The Center Key (next parameter) is used as the basic amplitude for this parameter.

A positive setting will cause the amplitude of lower notes to change slower and that of higher notes to change faster. Negative values will have the opposite effect.

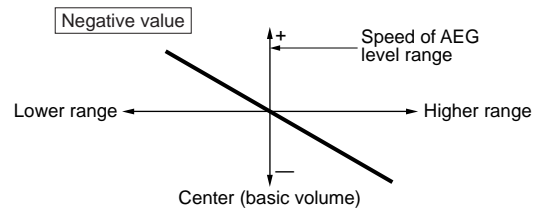
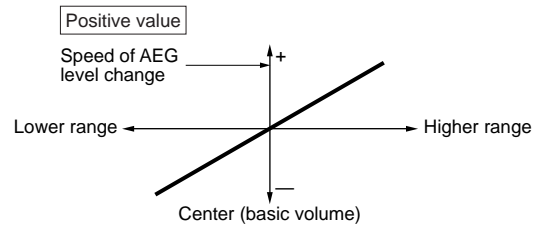
□ Settings -64 ~ 0 ~ +63

• CenterKey

Determines the central note or pitch for the Key Follow effect on Amplitude EG. Depending on the EG Time Sensitivity parameter above, the further away from the Center Key the keys are played, the more the time of the Amplitude EG deviates from the norm.

When the Center Key is played, the AEG behaves according to its actual settings. The amplitude change characteristics for other notes will vary in proportion to the EGTime settings.

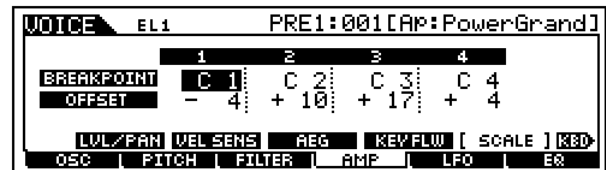
□ Settings C -2 ~ G8



NOTE You can also set the Center Key directly from the keyboard, by holding down the [INFORMATION] button and pressing the desired key.

● [F4]-[SF5] Normal Element Amplitude Scaling

Amplitude Scaling controls the output level (set in the [F4]-[SF1] display) according to the positions of the notes on the keyboard. You can divide the entire keyboard by four break points, and assign different offset values of amplitude to them respectively.



• BREAK POINT 1 ~ 4

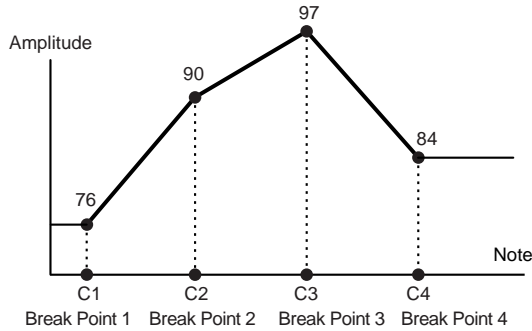
□ Settings C -2 ~ G8

NOTE You can also set the Break Point directly from the Keyboard, by holding down the [INFORMATION] button and pressing the desired key. See “Basic Operation” on page 75.

• OFFSET 1 ~ 4

□ Settings -128 ~ 0 ~ +127

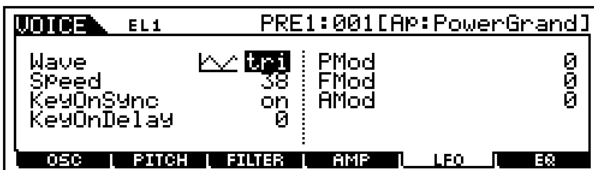
The best way to understand Amplitude Scaling is by example. For the settings shown in the example display above, the basic Amplitude (volume) value for the selected element is 80, and the various Offset values at the selected Break point settings change that basic value accordingly. The specific changes to the Amplitude are shown in the diagram below. The Amplitude changes in a linear fashion between successive Break Points as shown.



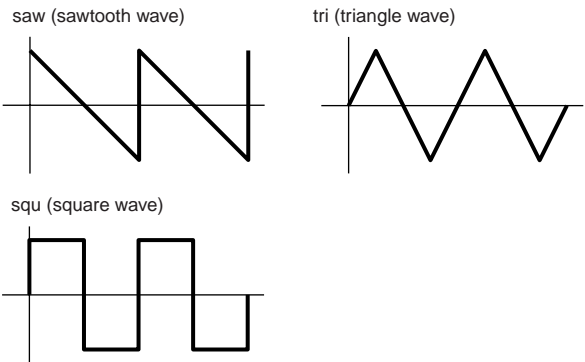
- [NOTE]** BP1 to BP4 will be automatically be arranged in ascending order across the keyboard.
- [NOTE]** Regardless of the size of these Offsets, the minimum and maximum Cutoff limits (values of 0 and 127, respectively) cannot be exceeded.
- [NOTE]** Any note played below the BP1 note results in the BP1 Level setting. Likewise, any note played above the BP4 note results in the BP4 Level setting.

● **[F5] Normal Element LFO** **Basic Structure (page 47)**

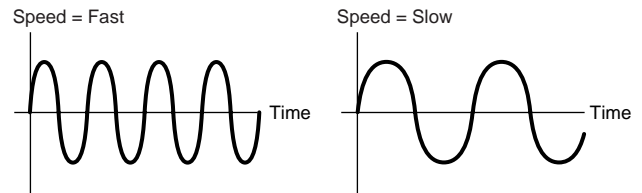
This display gives you a comprehensive set of controls over the LFO for each individual element. The LFO can be used to create vibrato, wah, tremolo and other special effects, by applying it to the pitch, filter and amplitude parameters.



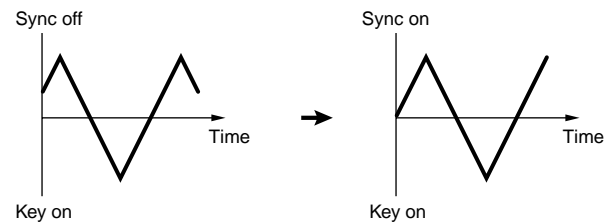
- **Wave**
Determines the LFO waveform used to vary the sound.
 Settings saw, tri, squ



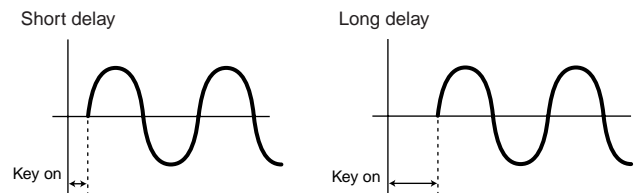
- **Speed**
Determines the speed of the LFO waveform. The higher the value, the faster the speed.
 Settings 0 ~ 63



- **KeyOnSync**
When this is set to on, the LFO waveform is reset every time a note is played.
 Settings off, on



- **KeyOnDelay**
Determines the delay time before the LFO comes into effect. A higher value results in a longer delay time.
 Settings 0 ~ 127



- **PMOD (Pitch Modulation Depth)**
Determines the amount (depth) by which the LFO waveform varies (modulates) the pitch of the sound. The higher the value, the greater the amount of pitch modulation.
 Settings 0 ~ 127

• FMOD (Filter Modulation Depth)

Determines the amount (depth) by which the LFO waveform varies (modulates) the Filter Cutoff frequency. The higher the value, the greater the amount of filter modulation.

□ Settings 0 ~ 127

• AMOD (Amplitude Modulation Depth)

Determines the amount (depth) by which the LFO waveform varies (modulates) the amplitude or volume of the sound. The higher the value, the greater the amount of amplitude modulation.

□ Settings 0 ~ 127

● [F6] Normal Element EQ (Equalizer)



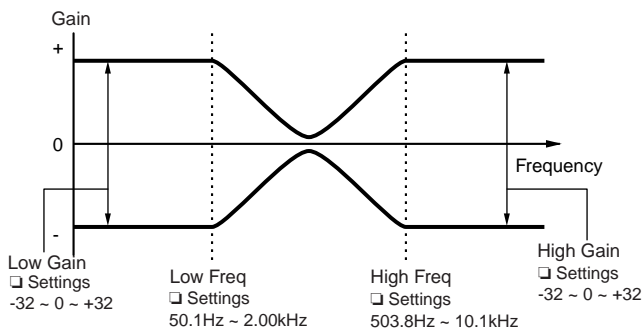
• Type

Determines the Equalizer Type. The MOTIF features a wide selection of various equalizer types, which can be used not only to enhance the original sound, but even completely change the character of the sound. The particular parameters and settings available depend on the specific Equalizer Type that is selected.

□ Settings EQ L/H, P.EQ, Boost6, Boost12, Boost18, thru

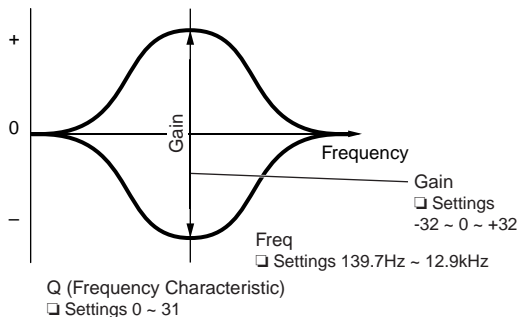
EQ L/H (Low/High)

This is a “shelving” equalizer, which combines separate high and low frequency bands.



P.EQ (Parametric EQ)

The Parametric EQ is used to attenuate or boost signal levels (gain) around the Frequency. This type features 32 different “Q” settings, which determine the frequency band width of the equalizer.



Boost6 (Boost 6dB)/Boost12 (Boost 12dB)/Boost18 (Boost 18dB)

These can be used to boost the level of the entire signal by 6dB, 12dB and 18dB, respectively.

thru

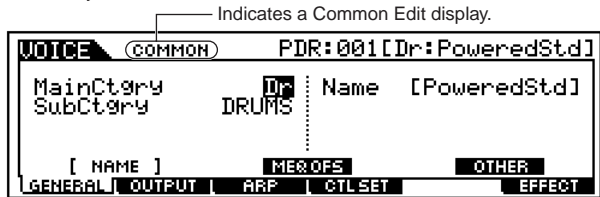
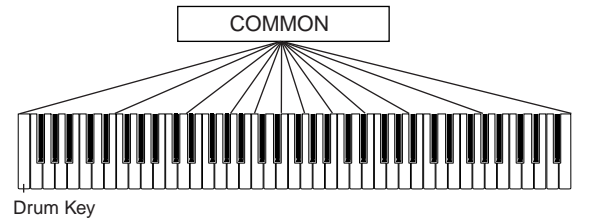
If you select this, the equalizers are bypassed and the entire signal is unaffected.

Drum Voice Edit

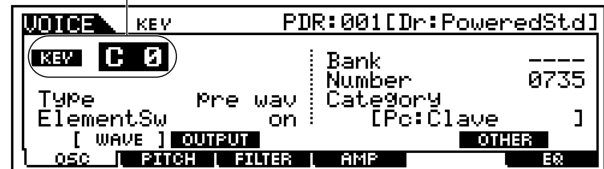
Basic Structure (page 45)

◆ Common edit and Drum Key edit

Each Drum voice consists of various Waves and/or Normal voices, each assigned to notes across the keyboard, from C0 to C6 (page 45). Use Drum Common Edit to edit the settings that apply to all Drum keys in the voice. There are two types of Drum Voice Edit displays: those for Common Edit, and those for editing individual keys (elements).



Indicates a display for editing a single key (in this case, C 0)



◆ Basic Procedure

Basic Structure (page 70)

- 1 Press the [VOICE] button to enter the Voice Play mode. (The indicator lights.)
- 2 Select a Drum voice to be edited.
- 3 Press the [EDIT] button to enter the Voice Edit mode. (The indicator lights.)

4 Select a key to be edited.

- To edit parameters common to the entire Drum voice (all keys), press the [DRUM KITS] button.



- To edit parameters of an individual Drum key (element), first press the NUMBER [1] button, then press the appropriate key on the keyboard.



5 Select the menu you wish to edit by pressing the [F1]-[F6] and [SF1]-[SF5] buttons.

6 Edit the parameters for the selected voice.

7 Store the settings edited in step #6 to the User Memory as required.

8 Press the [EXIT] button to exit from the Voice Edit mode.

- For detailed instructions on steps #5 - #6, see the explanations below.
- For details on step #7, refer to “Voice Store mode” on page 159.

■ Common (to all keys) edit

● [F1]-[SF1] Drum Common General Name

Same as in Normal Voice Common Edit. See page 130.

● [F1]-[SF3] Drum Common General Master EQ Offset

Same as in Normal Voice Common Edit. See page 131.

● [F1]-[SF5] Drum Common General Other

Same as in Normal Voice Common Edit. See page 132.

● [F2] Drum Common Output

VOICE COMMON		PDR:001[Dr:PoweredStd]	
Volume	127	RevSend	88
Pan	C	ChoSend	0
		InsRevSend	49
		InsChoSend	0

GENERAL | OUTPUT | ARP | CTLSET | EFFECT

Same as in Normal Voice Common Edit. See page 132. In addition, the following two parameters are also available.

● InsRevSend (Insertion Reverb Send)

Determines the Send level for the entire Drum voice (all keys), sent from Insertion Effect 1/2 to the Reverb effect.

● InsChoSend (Insertion Chorus Send)

Determines the Send level for the entire Drum voice (all keys), sent from Insertion Effect 1/2 to the Chorus effect.

Settings 0 ~ 127

NOTE Send level (to Reverb and Chorus) cannot be set independently for each Drum key; the value is fixed at 127 (maximum).

● [F3]-[SF1] Drum Common Arpeggio Arpeggio type

Same as in Normal Voice Common Edit. See page 132.

● [F3]-[SF2] Drum Common Arpeggio Arpeggio limit

Same as in Normal Voice Common Edit. See page 133.

● [F3]-[SF3] Drum Common Arpeggio Play FX (Effect)

Same as in Normal Voice Common Edit. See page 133.

● [F4]-[SF1], [SF2], [SF3] Drum Common Control Set Set1/2, Set3/4, Set5/6

Same as in Normal Voice Common Edit. See page 134.

Please note that the Element Switch parameter is not available in Drum Voice Common edit.

● [F6]-[SF1] Drum Common Effect Connection

Same as in Normal Voice Common Edit. See page 137.

The only difference here is that “KEY: OUT” appears in the Drum Common Effect display instead of “EL: OUT” (in Normal Common Effect).

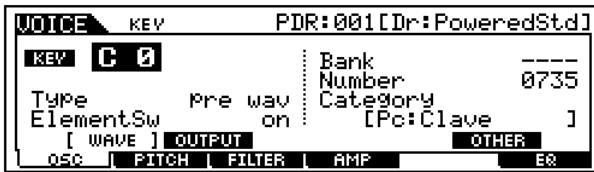
● **[F6]-[SF2], [SF3], [SF4], [SF5] Drum Common Effect Parameter Insertion 1, 2, Reverb, Chorus**

The number of parameters and values available differs depending on the currently selected effect type. For more information, see the Effect Type List in the separate Data List booklet.

■ **Drum Key Edit**

● **[F1]-[SF1] Drum Key Oscillator Wave**

From this display you can select the desired wave or Normal voice used for the individual Drum key.



● **Type**

Determines whether a Wave or a Normal voice is to be used for the selected key. Also, use the Bank, Number and Category parameters below to specify the desired Wave or Normal voice.

- Settings pre wave (Preset wave), voice, usr wave (User wave)

NOTE When the Type is set to “voice” here, some parameters in the Drum Voice Edit mode cannot be edited.

● **ElementSw (Element Switch)**

This parameter is available when Type (above) is set to “pre wave” or “user wave.” This determines whether the currently selected key is on or off, or in other words, whether the wave for the key is active or inactive.

- Settings on, off

● **Bank**

This parameter is available when Type (above) is set to “voice.” Any of the Normal voice banks can be selected.

NOTE Plug-in voices cannot be selected for Drum keys.

● **Number**

Determines the Wave/Voice number. The number differs depending on the selected Type.

- Settings
 - When Type is set to “pre wave”: 001 ~ 1309
 - When Type is set to “voice”: 001 ~ 128
 - When Type is set to “usr wave”: 001 ~ 256
- For more information about available Waves and Voices, refer to the separate Data List booklet.

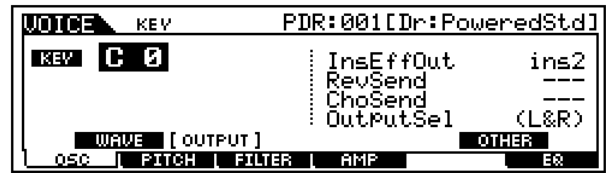
● **Category**

Determines the Category of the Wave/Normal Voice. If you switch to another Category, the first Wave/Normal Voice in that Category will be selected.

- Settings For more information about the Categories, refer to the separate Data List booklet.

● **[F1]-[SF2] Drum Key Oscillator Output**

From this display you can set certain output parameters for the selected Drum key.



● **InsEFOut (Insertion Effect Output)**

Determines which Insertion effect (1 or 2) is used to process each individual Drum key. The “thru” setting lets you bypass the Insertion effects for the specific key.

- Settings thru, ins1 (Insertion Effect 1), ins2 (Insertion Effect 2)

● **RevSend (Reverb Send)**

Determines the level of the Drum key sound (the bypassed signal) that is sent to Reverb effect. A setting of “0” results in no Reverb processing of the Drum key sound. This is available only when Insertion Effect Output (above) is set to “thru.”

- Settings 0 ~ 127

● **ChoSend (Chorus Send)**

Determines the level of the Drum key sound (the bypassed signal) that is sent to Chorus effect. A setting of “0” results in no Chorus processing of the Drum key sound. This is available only when Insertion Effect Output (above) is set to “thru.”

- Settings 0 ~ 127

● **OutputSel (Output Select)**

Determines the specific output(s) for the individual Drum key signal. You can assign each individual Drum key sound to be output from a specific hardware output jack on the rear panel. By installing the optional AIEB2 board, you can expand the number of assignable outputs.

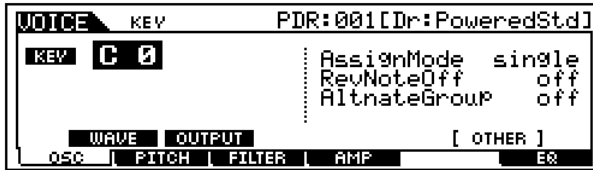
- Settings See below.

LCD	Output jacks	Stereo/Mono	
L&R	OUTPUT L and R	Stereo	
asL&R	ASSIGNABLE OUTPUT L and R	Stereo	
as1&2	ASSIGNABLE OUTPUT 1 and 2 on the AIEB2	Stereo 1 : L 2 : R	*
as3&4	ASSIGNABLE OUTPUT 3 and 4 on the AIEB2	Stereo 3 : L 4 : R	*
as5&6	ASSIGNABLE OUTPUT 5 and 6 on the AIEB2	Stereo 5 : L 6 : R	*
asL	ASSIGNABLE OUTPUT L	Mono	
asR	ASSIGNABLE OUTPUT R	Mono	
as1	ASSIGNABLE OUTPUT 1 on the AIEB2	Mono	*
as2	ASSIGNABLE OUTPUT 2 on the AIEB2	Mono	*
as3	ASSIGNABLE OUTPUT 3 on the AIEB2	Mono	*
as4	ASSIGNABLE OUTPUT 4 on the AIEB2	Mono	*
as5	ASSIGNABLE OUTPUT 5 on the AIEB2	Mono	*
as6	ASSIGNABLE OUTPUT 6 on the AIEB2	Mono	*

* Available only when the optional AIEB2 board has been installed.

● [F1]-[SF5] Drum Key Oscillator Other

From this display you can set various parameters related to how the individual notes of the Drum voice respond to the keyboard and MIDI data.



● AssignMode

When this is set to “single,” double playback of the same note is prevented. This is useful when two or more instances of the same note are received nearly simultaneously, or without a corresponding note off message. To allow playback of each instance of the same note, set this to “multi.”

- Settings single, multi

[NOTE] When the Alternate Group (AltGrp) parameter is set to a setting other than “off,” this parameter is unavailable, and “---” is shown in the display.

● RevNoteOff (Receive Note Off)

Determines whether or not the selected Drum key responds to MIDI Note Off messages. Setting this to “off” can be useful for cymbal sounds and other sustaining sounds. This lets you have the selected sounds sustain to the length of their natural decay — even if you release the note, or a Note Off message is received.

- Settings off, on

[NOTE] This parameter is effective for Waves selected in the [F1] - [SF1] Drum Key Oscillator Wave display (page 150).

● AltGrp (Alternate Group)

Set the Alternate Group to which the Wave is assigned. In a real drum kit, some drum sounds cannot physically be played simultaneously, such as open and closed hi-hats. You can prevent Waves from playing back simultaneously by assigning them to the same Alternate Group. Up to 127 Alternate Groups can be defined. You can also select “off” here if you wish to allow the simultaneous playback of sounds.

- Settings off, 1 ~ 127

● [F2]-[SF1] Drum Key Pitch Tune



● Coarse

Determines the pitch of each Drum Key Wave (or Normal Voice) in semitones.

- Settings -48 ~ +48

[NOTE] If a Normal voice has been assigned to the key, this parameter adjusts the position of its note (not its pitch) relative to note C3. For example, let's assume the original Voice consists of a two-Element piano-like sound up to note C3 and a two-Element string-like sound from note C#3 upwards. Adjusting this Coarse setting by +1 would not change the pitch of the piano-like sound to C#3. Instead, note C#3 of the original Voice (i.e., the string-like sound) would be used.

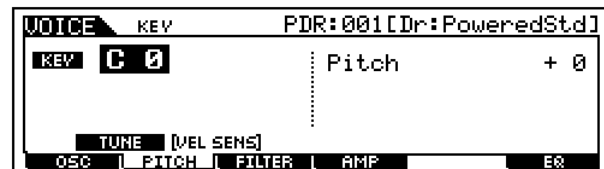
● Fine

Determines the fine tuning for the pitch of each Drum Key Wave (or Normal Voice).

- Settings -64 ~ +63

● [F2]-[SF2] Drum Key Pitch Velocity Sensitivity

From this display you can determine how the pitch of the Drum key responds to velocity.



● Pitch

Determines how the pitch of the selected Drum key responds to velocity. For positive values, the harder you play the key, the higher the pitch becomes. For negative values, the harder you play the key, the lower the pitch.

- Settings -64 ~ +63

● [F3]-[SF1] Drum Key Filter Cutoff

Basic Structure (page 46)

The MOTIF lets you apply a low pass filter and high pass filter to each individual Drum key — giving you exceptionally detailed and comprehensive sonic control over the Drum voice.

[NOTE] This parameter is effective for Waves selected in the [F1] - [SF1] Drum Key Oscillator Wave display (page 150).



● LPF Cutoff

Determines the Cutoff frequency of the Low Pass Filter.

- Settings 0 ~ 255

● LPF Reso

Determines the amount of Resonance (harmonic emphasis) applied to the signal at the Cutoff frequency.

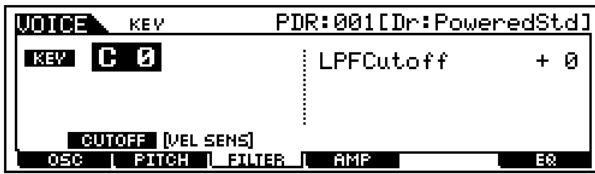
- Settings 0 ~ 31

● HPF Cutoff

Determines the Cutoff frequency of the High Pass Filter.

- Settings 0 ~ 255

● **[F3]-[SF2] Drum Key Filter Velocity Sensitivity**



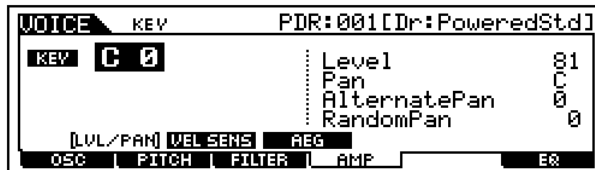
● **LPFCutoff**

Determines the velocity sensitivity of the Low Pass Filter Cutoff frequency. Positive settings will cause the cutoff frequency to rise the harder you play the keyboard and negative settings will cause it to fall.

□ Settings -64 ~ 0 ~ +63

● **[F4]-[SF1] Drum Key Amplitude Level/Pan**

This display not only lets you make basic Level and Pan settings for the sound of each individual Drum key, it also gives you some detailed and unusual parameters for affecting Pan position.



● **Level**

Determines the output for the selected Drum key (Wave). This lets you make detailed balance adjustments among the various sounds of the Drum voice.

□ Settings 0 ~ 127

● **Pan**

Determines the stereo Pan position for the selected Drum key (Wave). This will also be used as the basic Pan position for the Alternate and Random settings.

□ Settings L63 (Left) ~ C (Center) ~ R63 (Right)

● **AlternatePan**

Determines the amount by which the sound of the selected Drum key is panned alternately left and right for each note you press. The Pan setting (above) is used as the basic Pan position.

□ Settings L64 ~ 0 ~ R63

NOTE This parameter is effective for Drum keys whose Type parameter (in the Oscillator Wave display, page 150) has been set to "Preset wave" or "User wave."

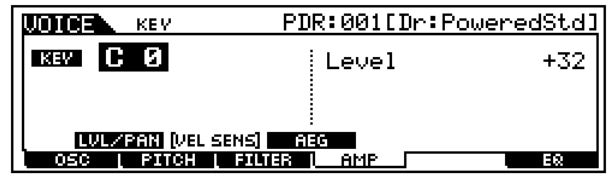
● **RandomPan**

Determines the amount by which the sound of the selected Drum key is panned randomly left and right for each note you press. The Pan setting (above) is used as the Center Pan position.

□ Settings 0 ~ 127

NOTE This parameter is effective for Drum keys whose Type parameter (in the Oscillator Wave display, page 150) has been set to "Preset wave" or "User wave."

● **[F4]-[SF2] Drum Key Amplitude AEG Velocity Sensitivity**

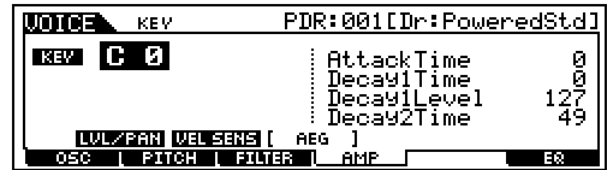


● **Level**

Determines the velocity sensitivity of the Amplitude Envelope Generator's output level. Positive settings will cause the output level to rise the harder you play the keyboard and, conversely, negative values will cause it to fall.

□ Settings -64 ~ 0 ~ +63

● **[F4]-[SF3] Drum Key Amplitude AEG Basic Structure (page 47)**



● **AttackTime**

□ Settings 0 ~ 127

● **Decay1Time**

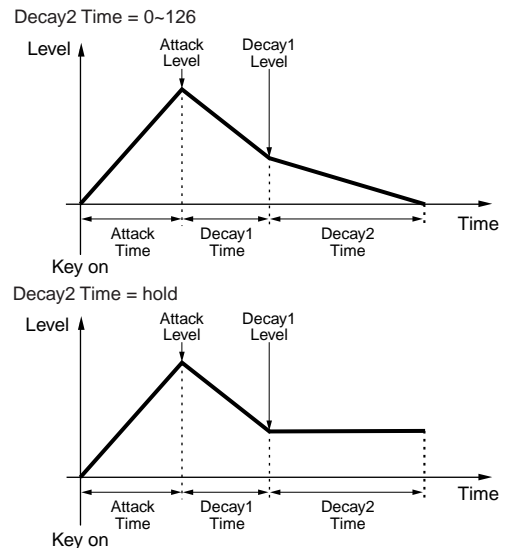
□ Settings 0 ~ 127

● **Decay1Lvl (Level)**

□ Settings 0 ~ 127

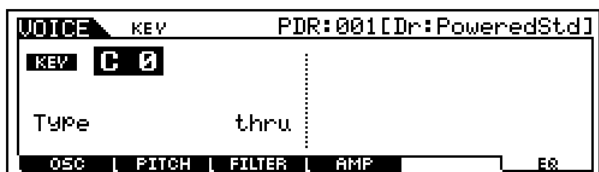
● **Decay2Time**

□ Settings 0 ~ 126, hold



● **[F6] Drum Key EQ (Equalizer)**

Same as in Normal Voice Element Edit. See page 148.



NOTE This parameter is effective for Drum keys whose Type parameter (in the Oscillator Wave display, page 150) has been set to “Preset wave” or “User wave.”

Plug-in Voice Edit

Basic Structure (page 43)

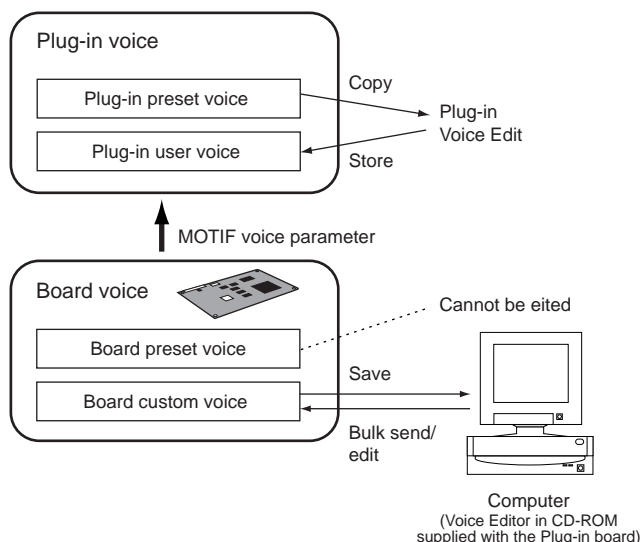
◆ **Common edit and Element edit**

Same as Normal Voice Edit. See page 129. Unlike with Normal voices, the Plug-in voices only have one element for editing.

◆ **About Plug-in voices and Board voices**

The voices of a Plug-in Board installed to the MOTIF can be divided into two types: Board voices and Plug-in voices. Board voices are unprocessed, unaltered voices of the Plug-in board — the “raw material” used for the Plug-in voices. Plug-in voices, on the other hand, are edited Board voices — voices that have been specially programmed and processed for optimum use with the MOTIF.

Included among the Board voices is a special set of voices — called Board Custom voices — which can be edited by a computer connected to the MOTIF, using special editing software included with the Plug-in board. (See page 87.)



NOTE Depending on the particular Plug-in board you are using, some of the parameters described here may not be available. For details, refer to the relevant owner’s manual of the Plug-in board.

NOTE For details on the current lineup of available Plug-in boards, see page 35.

◆ **Basic Procedure**

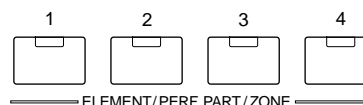
Basic Structure (page 70)

- 1 Press the [VOICE] button to enter the Voice Play mode. (The indicator lights.)
- 2 Select a Plug-in voice to be edited.
- 3 Press the [EDIT] button to enter the Voice Edit mode. (The indicator lights.)
- 4 Select an element to be edited.

- To edit the Common parameters, press the [DRUM KITS] button (which serves as a “COMMON” button here).



- To edit the Element parameters, press any one of the NUMBER buttons ([1] - [4]). (Editing is the same, no matter which NUMBER button you press.)



- 5 Select the menu you wish to edit by pressing the [F1] - [F6] and [SF1] - [SF5] buttons.

- 6 Edit the parameters for the selected voice.

- 7 Store the settings edited in step #6 to the User Memory as required.

- 8 Press the [EXIT] button to exit from the Voice Edit mode.

- For detailed instructions on steps #5 - #6, see the explanations below.
- For details on step #7, refer to “Voice Store mode” on page 159.

■ Common edit

● [F1]-[SF1] Plug-in Common General Name

Same as in Normal Voice Common Edit. See page 130.

● [F1]-[SF2] Plug-in Common General Play mode

Same as in Normal Voice Common Edit. See page 130.
Please note that Micro Tuning is not available in Plug-in Voice Common Edit.

● [F1]-[SF3] Plug-in Common General Master EQ Offset

Same as in Normal Voice Common Edit. See page 131.

● [F1]-[SF4] Plug-in Common General Portamento

Same as in Normal Voice Common Edit. See page 131.
Please note that Portamento Mode and Portamento Time are not available in Plug-in Voice Common Edit.

● [F1]-[SF5] Plug-in Common General Other

Same as in Normal Voice Common Edit. See page 132.
Unlike with Normal Voice Edit, the Upper and Lower ranges cannot be independently set here.

● [F2] Plug-in Common Output

Same as in Normal Voice Common Edit. See page 132.

● [F3]-[SF1] Plug-in Common Arpeggio Arpeggio type

Same as in Normal Voice Common Edit. See page 132.

● [F3]-[SF2] Plug-in Common Arpeggio Arpeggio limit

Same as in Normal Voice Common Edit. See page 133.

● [F3]-[SF3] Plug-in Common Arpeggio Play FX (Effect)

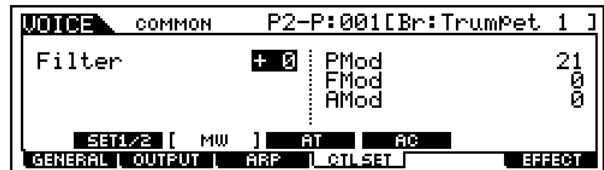
Same as in Normal Voice Common Edit. See page 133.

● [F4]-[SF1] Plug-in Common Control Set Set1/2

Same as in Normal Voice Common Edit. See page 134.
Please note that Element Switch is not available in Plug-in Voice Common Edit.

● [F4]-[SF2] Plug-in Common Control Set Modulation Wheel

From this display you can set how the Plug-in voice responds to the Modulation wheel, by changing the control depth for the filter, pitch and amplitude (volume).



• Filter

Determines the depth of control of the Modulation Wheel over the filter cutoff frequency. Negative settings result in reversed Modulation wheel operation (i.e., moving the wheel up results in less modulation).

□ Settings -64 ~ 0 ~ +63

• PMod (Pitch Modulation Depth)

Determines the depth of control the Modulation Wheel has over pitch modulation. The higher the setting, the greater the depth of control.

□ Settings 0 ~ 127

• FMod (Filter Modulation Depth)

Determines the depth of control the Modulation Wheel has over filter cutoff modulation. The higher the setting, the greater the depth of control.

□ Settings 0 ~ 127

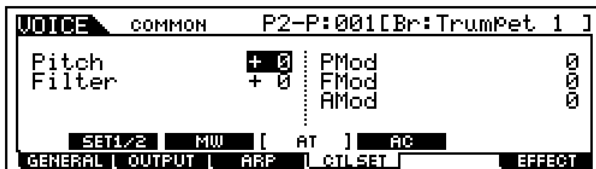
• AMod (Amplitude Modulation Depth)

Determines the depth of control the Modulation Wheel has over amplitude modulation. The higher the setting, the greater the depth of control.

□ Settings 0 ~ 127

● [F4]-[SF3] Plug-in Common Control Set After Touch

The MOTIF gives you a comprehensive set of after touch controls for the Plug-in voice, allowing you to change the pitch and filter settings, and produce modulation effects (pitch, filter and amplitude)- simply by pressing down hard on the keys.



● Pitch

Determines the depth of control of keyboard aftertouch over pitch. You can set a value (in semitones) of up to two octaves.

□ Settings -24 ~ 0 ~ +24

● Filter

Determines the depth of control of keyboard aftertouch over the filter cutoff frequency.

□ Settings -64 ~ 0 ~ +63

● PMod (Pitch Modulation Depth)

Determines the depth of control that keyboard aftertouch has over pitch modulation. The higher the setting, the greater the depth of control.

□ Settings 0 ~ 127

● FMod (Filter Modulation Depth)

Determines the depth of control that keyboard aftertouch has over filter cutoff modulation. The higher the setting, the greater the depth of control.

□ Settings 0 ~ 127

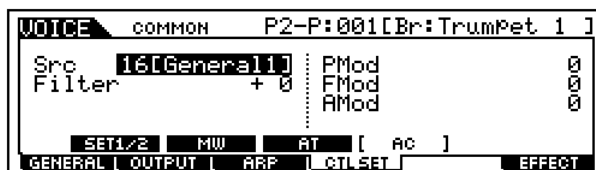
● AMod (Amplitude Modulation Depth)

Determines the depth of control that keyboard aftertouch has over amplitude modulation. The higher the setting, the greater the depth of control.

□ Settings 0 ~ 127

● [F4]-[SF4] Plug-in Common Control Set AC (Assignable Controls)

From this display you can assign MIDI Control Change numbers and determine the degree to which the assigned controllers affect the filter and the modulation effects (pitch, filter and amplitude). For details on using Control Change numbers and the Assignable Controls, see page 191.



● Source

Determines the MIDI Control Change number used to control the filter, PMod, FMod, and Amod.

□ Settings 0 ~ 95

● Filter

Determines the depth of control the Control Change numbers (set in the Source parameter above) have over the filter cutoff frequency.

□ Settings -64 ~ 0 ~ +63

● PMod (Pitch Modulation Depth)

Determines the depth of control the Control Change messages (set in the Source parameter above) have over pitch modulation. The larger the setting, the greater the depth of control.

□ Settings 0 ~ 127

● FMod (Filter Modulation Depth)

Determines the depth of control the Control Change messages (set in the Source parameter above) have over filter cutoff modulation. The larger the setting, the greater the depth of control.

□ Settings 0 ~ 127

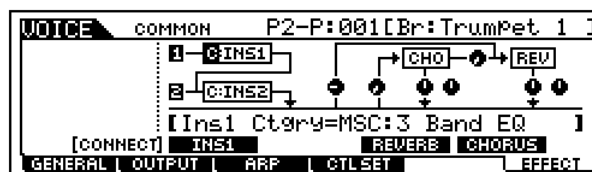
● AMod (Amplitude Modulation Depth)

Determines the depth of control the Control Change messages (set in the Source parameter above) have over amplitude modulation. The larger the setting, the greater the depth of control.

□ Settings 0 ~ 127

● [F6]-[SF1] Plug-in Common Effect Connection

Basic Structure (page 40)



This is the same as in Normal Voice Common Edit (page 137), with the exception of the following points.

- EL: OUT settings are not available in Plug-in Voice Common Edit.
- The parallel setting (Insertion Connection) is not available in Plug-in Voice Common Edit.

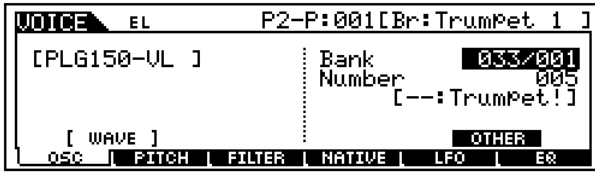
● [F6]-[SF2], [SF3], [SF4], [SF5] Plug-in Common Effect Parameter Insertion 1, 2, Reverb, Chorus

The number of parameters and values available differs depending on the currently selected effect type. For more information, see the Effect Type List in the separate Data List booklet.

■ **Element Edit**

● **[F1]-[SF1] Plug-in Element Oscillator Wave**

From this display you can select the desired Board Voice used for the element of the Plug-in voice. Keep in mind that a Plug-in voice only has one element.



● **Bank**

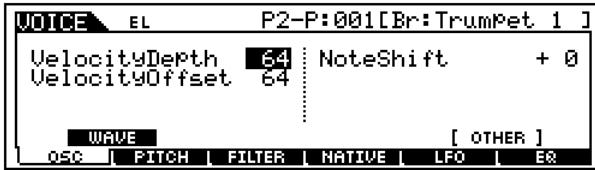
Determines the Board Voice Bank of the Plug-in voice.
 Settings (These depend on the particular Plug-in board; refer to the relevant owner's manual for details.)

● **Number**

Determines the Board Voice Number.
 Settings (These depend on the particular Plug-in board; refer to the relevant owner's manual for details.)

● **[F1]-[SF5] Plug-in Element Oscillator Other**

From this display you can set how the Plug-in voice responds to velocity, and transpose the key (pitch) for the voice.



● **Velocity Depth**

Determines the velocity sensitivity of the Board voice. For higher values, the harder you play the keyboard, the louder the voice becomes.
 Settings 0 ~ 127

● **Velocity Offset**

This lets you specify an offset value for the velocity sensitivity of the Board voice. In other words, you can increase the relative velocity (or level) of the voice by a set amount — so that all the notes you play have the added velocity.
 Settings 0 ~ 127

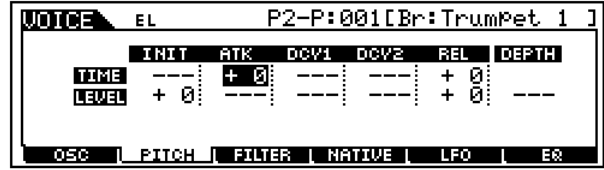
● **Note Shift**

Determines the transpose setting for the Board voice, or the amount (in semitones) by which the pitch is raised or lowered. The pitch range is two octaves, up or down.
 Settings -24 ~ 0 ~ +24

● **[F2] Plug-in Element Pitch PEG Time, Level**

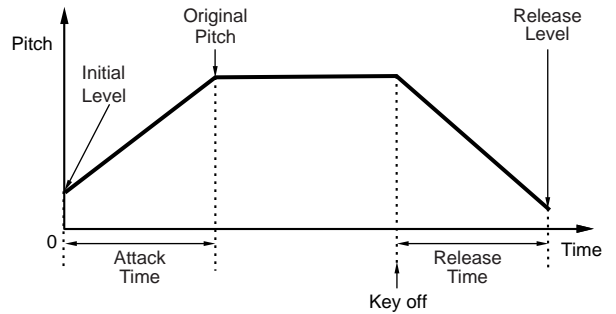
Basic Structure (page 46)

From this display you can make various time and level settings for the Pitch EG, which determine how the pitch of the Board voice changes over time.



The full names of the available parameters are shown in the chart below, as they appear in the display.

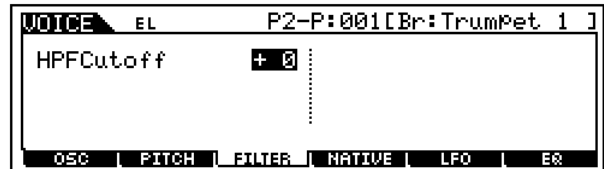
	INIT	ATK	DCY1	DCY2	REL	DEPTH
TIME	---	Attack time	---	---	Release time	
LEVEL	Initial level	---	---	---	Release time	---



Settings -64 ~ 0 ~ +63

● **[F3] Plug-in Element Filter Cutoff**

Basic Structure (page 46)



● **HPFCutoff (High Pass Filter Cutoff frequency)**

Determines the Cutoff frequency for the High Pass Filter.
 Settings -64 ~ 0 ~ +63

● **[F4] Plug-in Element Native**

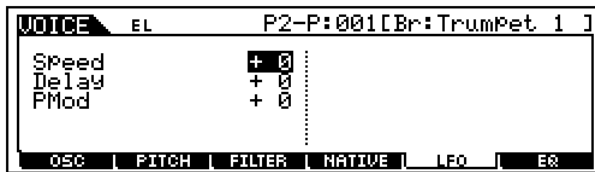
With a Plug-in board installed to the MOTIF, you can create a Board voice by editing both native parameters (those parameters exclusive to the particular board) and unique parameters (related specifically to the MOTIF). Pressing [F4] gives you access to the native parameters of the Plug-in board. The parameters will vary depending on the Plug-in Board. For details about each parameter and its functions, refer to the Owner's Manual or the on-line help that came with your Plug-in Board.

NOTE For details on the current lineup of available Plug-in boards, see page 35.

● [F5] Plug-in Element LFO

Basic Structure (page 47)

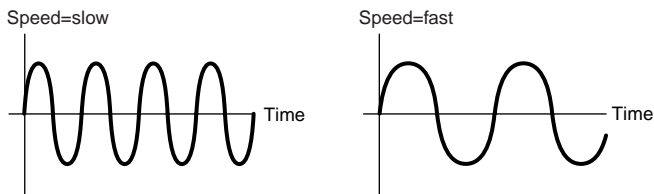
From this display you can set the basic LFO parameters for modulating the pitch to create vibrato and other special effects.



• Speed

Determines the speed of the LFO waveform. Positive settings increase the speed and negative settings decrease it. This is applied as an offset to the same parameter in the original voice of the Plug-in board.

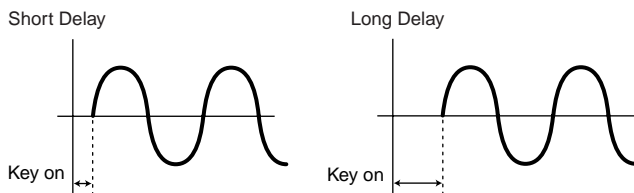
□ Settings -64 ~ 0 ~ +63



• Delay

Determines the delay time between the moment you press note on the keyboard and the moment the LFO comes into effect. Positive settings lengthen the delay and negative settings shorten it. This is applied as an offset to the same parameter in the original voice of the Plug-in board.

□ Settings -64 ~ 0 ~ +63



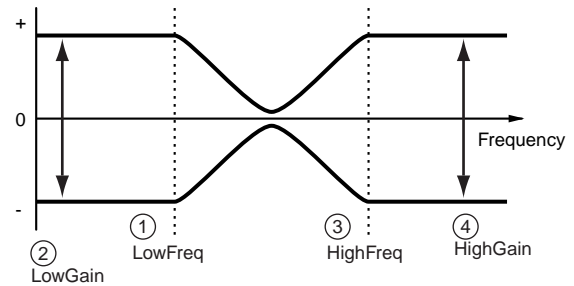
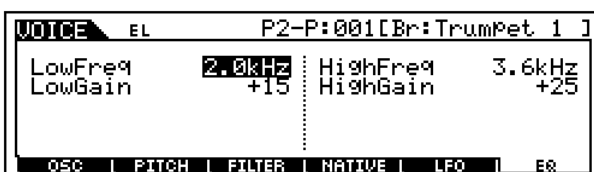
• PMod (Pitch Modulation Depth)

Determines the amount by which the LFO waveform controls the pitch. Positive settings increase the amount and negative settings decrease it. This is applied as an offset to the same parameter in the original voice of the Plug-in board.

□ Settings -64 ~ 0 ~ +63

● [F6] Plug-in Element EQ (Equalizer)

From this display you can apply equalizer settings to the Board voice. This is a shelving equalizer with two bands; one for high frequencies and the other for low frequencies.



① LowFreq (Low Frequency)

Determines the shelving point for the low frequencies. The levels of signals below this frequency will be boosted/attenuated by the amount set in the LoGain parameter.

□ Settings 32Hz ~ 2.0kHz

② LowGain (Low Gain)

Determines the amount by which signals below the LoFreq frequency will be boosted/attenuated.

□ Settings -64 ~ 0 ~ +63

③ HighFreq (High Frequency)

Determines the shelving point for the high frequencies. The levels of signals above this frequency will be boosted/attenuated by the amount set in the HiGain parameter.

□ Settings 500Hz ~ 16.0kHz

④ HighGain (High Gain)

Determines the amount by which signals above the HiFreq frequency will be boosted/attenuated.

□ Settings -64 ~ 0 ~ +63

◆ About Board Custom Voice Editing

You can edit Board Custom voices of the Plug-in Board by using the Voice Editor software included with the board.

NOTE Select the Part Number of the Editor software to "1" when using the software with the Voice mode. Also make sure to match the basic MIDI receive channel of the MOTIF (page 258) to the MIDI channel of the Editor software.

The original Board Custom voices you've edited can be saved and controlled from the computer.

⚠ CAUTION

Make sure to save the edited data to a memory card or connected SCSI device from the MOTIF, since any edited data in the DRAM of the Plug-in board will be lost when you turn off the power on the MOTIF.

NOTE For details about how to use the Voice Editor software included with the Plug-in board, refer to the Online help of the Voice Editor.

NOTE Editing the above parameters may or may not have much effect on the sound, depending on the particular Plug-in board you've installed.

Voice Job mode

The Voice Job mode contains various convenient operations (called “Jobs”), which are useful in editing and archiving your original voices.

◆ Basic Procedure

- 1 In the Voice Play mode, select a voice you wish to execute the Job on.
- 2 Press the [JOB] button to enter the Voice Job Mode.
- 3 Select the desired Job menu by pressing the appropriate button, [F1] - [F6].
- 4 Set the relevant Job parameters.
- 5 Press the [ENTER] button. (The display prompts you for confirmation.)
- 6 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Job, press the [DEC/NO] button.

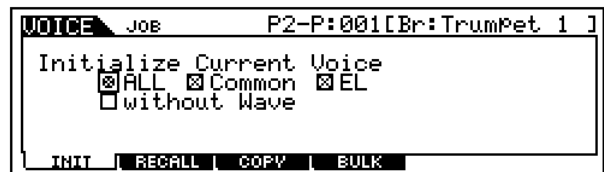
⚠ CAUTION

For Jobs that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

- 7 Press the [VOICE] button to exit from Voice Job mode and return to Voice Play mode.
 - For detailed instructions on steps #3 - #4, see the explanations below.

● [F1] Initialize

This function lets you reset (initialize) all voice parameters to their default settings. It also allows you to selectively initialize certain parameters, such as Common settings, settings for each Element/Drum key, and so on — very useful when creating a completely new voice from scratch.



- Type of parameter to be initialized

When a Normal voice is selected:

ALL, Common, EL1 ~ 4

When a Drum voice is selected:

ALL, Common, EL

NOTE If you turn the check mark on, you can select a Drum key. For details on selecting a key, see “Basic Operation” on page 75.

When a Plug-in voice is selected:

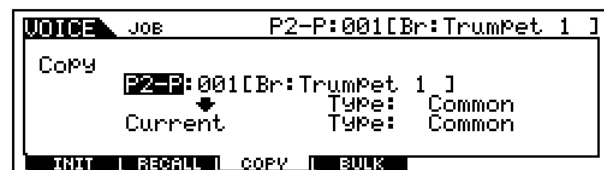
ALL, Common, EL

● [F2] Edit Recall

If you are editing a voice and select a different voice without storing your edited one, all the edits you’ve made will be erased. If this happens, you can use Edit Recall to restore the voice with your latest edits intact.

● [F3] Copy

From this display you can copy Common and Element/Drum Key parameter settings from any Voice to the Voice you are editing. This is useful if you are creating a Voice and wish to use some parameter settings from another Voice.



● Source voice

Select a Voice and data type to be copied.

- Data type

When a Normal voice is selected:

Common, Element 1 ~ 4

When a Drum voice is selected:

Common, Drum key C0 ~ C6

When a Plug-in voice is selected:

Common, Element

NOTE If the source Voice type (Normal/Drum/Plug-in) differs from one of the Voice you are currently editing (destination), you will only be able to copy Common parameters.

- **Data type of Destination voice (current selected voice)**

If the source is a Normal or Drum Voice and data type is set to Element or Drum Key, you can set the data type of the destination Voice.

- Data type

When a Normal voice is selected:
Element 1 ~ 4

When a Drum voice is selected:
Drum key C0 ~ C6

NOTE If you choose to copy Common parameters from the source, this display will change to “Common.”

- **[F4] Bulk Dump**

This function lets you send all your edited parameter settings for the currently selected voice to a computer or another MIDI device for data archiving.

NOTE You must set the correct MIDI Device Number in order to execute a Bulk Dump. For details, see page 258.

Voice Store mode

.....
Basic Structure (page 63)

This function lets you store your edited voice to User memory.

CAUTION

When you execute this, the settings for the destination memory will be overwritten. Important data should always be backed up to computer, a separate Memory Card or some other storage device.

◆ Basic Procedure

- 1 After editing the voice, press the [STORE] button to enter the Voice Store mode.
- 2 Select the destination Voice Memory.
- 3 Press the [ENTER] button. (The display prompts you for confirmation.)
- 4 To execute the Store operation, press the [INC/YES] button. After the voice has been stored, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Store operation, press the [DEC/NO] button.

CAUTION

For Store operations that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

Performance Mode

Function Tree

This section is devoted to the Performance mode. To see how the Performance mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30.

The following detailed chart shows all of the display menus and parameter groups of the Performance modes — giving you a quick, easy-to-understand overview of the performance-related functions of the MOTIF. Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

[PERFORMANCE]			
	[INFO] PERFORMANCE INFO		P. 275
	[PERFORM] PERFORMANCE PLAY		P. 162
	[F1] PERFORMANCE PLAY		P. 162
	[F2] PERFORMANCE AD		P. 163
	[F3] PERFORMANCE VOICE		P. 164
	[SF1] ADD INTERNAL VOICE		P. 164
	[SF2] ADD PLUG-IN VOICE		P. 164
	[SF3] DELETE		P. 164
	[SF4] SET NOTE LIMIT LOW		P. 164
	[SF5] SET NOTE LIMIT HIGH		P. 164
	[F4] PERFORMANCE PORTAMENTO		P. 164
	[F5] PERFORMANCE EG		P. 164
	[F6] PERFORMANCE ARPEGGIO		P. 165
	[CATEGORY] PERFORMANCE CATEGORY SEARCH		P. 124
	[FAV] CATEGORY SEARCH		P. 126
	[F1] SUB CATEGORY1 SELECT		P. 126
	[F2] SUB CATEGORY2 SELECT		P. 126
	[F3] SUB CATEGORY3 SELECT		P. 126
	[F4] SET TO FAVORITE		P. 126
	[F5] CLEAR 1 FAVORITE		P. 126
	[F6] CLEAR ALL FAVORITE		P. 126
	[FAV] FAVORITE SELECT		P. 127
	[F5] CLEAR 1 FAVORITE		P. 127
	[F6] CLEAR ALL FAVORITE		P. 127
	[EDIT] PERFORMANCE EDIT		P. 165
	[COMMON] COMMON		P. 165
	[F1] COMMON		P. 166
	[SF1] NAME		P. 166
	[SF3] MEQ OFFSET		P. 166
	[SF4] PORTA		P. 167
	[SF5] OTHER		P. 167
	[F2] COMMON OUTPUT/MASTER EQ		P. 167
	[SF1] OUTPUT		P. 167
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	[F3] COMMON ARPEGGIO		P. 168
	[SF1] TYPE		P. 168
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	[SF5] CLEAR USER ARPEGGIO		P. 132
	[F4] COMMON CONTROLLER ASSIGN		P. 169
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	[F6] COMMON EFFECT		P. 169
	[SF1] EFFECT CONNECT		P. 169
	[SF2] PLG-EF		P. 170
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[PART SELECTION] PART 1-4			
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		[SF1] VOICE	P. 170
		[SF2] PLYMODE	P. 170
		[SF3] LIMIT	P. 170
		[SF4] PORTAMENTO	P. 171
		[SF5] OTHER	P. 171
		[F2] PART OUTPUT	P. 172
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		[SF2] EFFECT SEND	P. 172
		[F3] PART OUTPUT SELECT	P. 173
		OUTPUT SELECT	P. 173
		[F4] PART TONE	P. 173
		[SF1] TUNE	P. 173
		[SF2] FILTER	P. 173
		[SF3] FEG	P. 173
		[SF4] AEG	P. 174
		[F5] PART RECEIVE SWITCH	P. 174
		[PART SELECTION] PART PLG1-PLG3	P. 170
	[F6]	[F1] PART VOICE	P. 170
		[SF1] VOICE	P. 170
		[SF2] PLYMODE	P. 170
		[SF3] LIMIT	P. 170
		[SF4] PORTAMENTO	P. 171
		[SF5] OTHER	P. 171
		[F2] PART OUTPUT	P. 172
		[SF1] VOLUME/PAN	P. 172
		[SF2] EFFECT SEND	P. 172
		[F3] PART OUTPUT SELECT	P. 173
		OUTPUT SELECT	P. 173
		[F4] PART TONE	P. 173
		[SF1] TUNE	P. 173
		[SF2] FILTER	P. 173
		[SF4] AEG	P. 174
		[F5] PART RECEIVE SWITCH	P. 174
[EDIT] PERFORMANCE COMPARE			P. 165
[JOB] PERFORMANCE JOB			P. 175
[F1] INITIALIZE			P. 175
[F2] EDIT RECALL			P. 175
[F3] COPY			P. 175
[F4] BULK DUMP			P. 176
[STORE] PERFORMANCE STORE			P. 176

Performance Play mode

.....
Basic Structure (page 31) - Quick Start Guide (page 88)

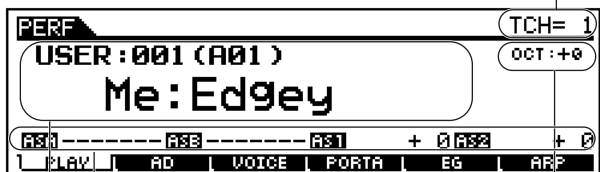
In this mode, you can select and play individual User performances.

NOTE For details about the performances and their memory (bank) structure, see page 40.

◆ Basic Procedure

Basic Operation (page 67)

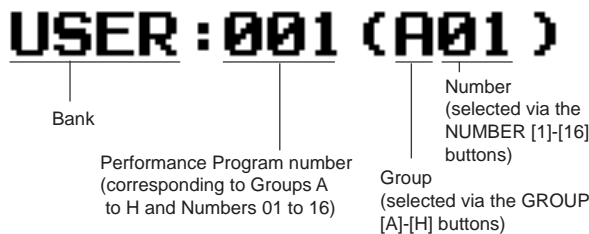
1 Press the [PERFORMANCE] button to enter the Performance Play mode. (The indicator lights.)



Indicates the functions assigned to the respective Control knobs. See page 256 for details.

Indicates Keyboard Octave setting set is the [OCTAVE] buttons. See page 82 for details.

Indicates the current selected Performance.



2 Select a performance.

3 Set the Keyboard Octave or MIDI transmit channel.

4 Turn individual parts of the performance on or off (mute) as desired.

5 Select the menu you wish to edit by pressing the [F2] - [F6] buttons and edit the parameters in each display.

6 Store the settings edited in step #5 to the User Memory as required.

7 Press any other mode button to exit from the Performance Play mode.

- For detailed instructions on steps #2 - #5, see the following explanations.
- For details on step #6, refer to “Performance Store mode” on page 176.

Performance Selection

The explanations here apply to step #2 of the Basic Procedure above.

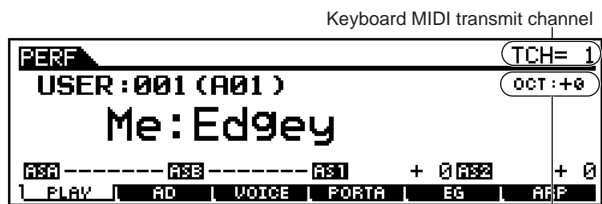
Selecting performances is done in basically the same way as selecting voices (page 124), except for the following point.

- Since the MOTIF has no Preset performances and provides only one User bank, selecting a bank is not necessary.

Keyboard Octave and Keyboard MIDI transmit channel settings

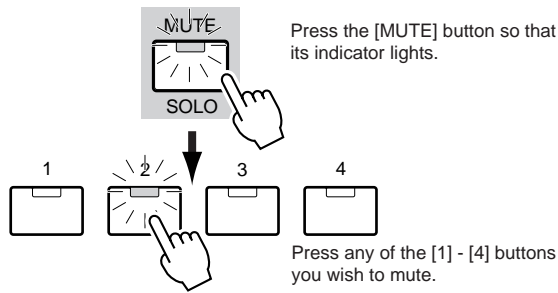
The explanations here apply to step #3 of the Basic Procedure on page 162.

The two parameters set here affect all selected performances. Setting these parameters is the same as in the Voice Play mode (page 127). Keep in mind that these parameters cannot be stored to the performance by using the Performance Store mode (page 176).



Performance Part on/off

The explanations here apply to step #4 of the Basic Procedure on page 162.



NOTE This operation is available also in the Performance Edit mode.

Performance editing in the Performance Play mode

The explanations here apply to step #5 of the Basic Procedure on page 162.

The Performance Play mode lets you perform a variety of general editing operations on the selected performance. For more detailed and comprehensive editing operations, use the Performance Edit mode.

NOTE The parameters that have the same name in the Performance Play mode and in the Performance Edit mode have the same functions and settings.

◆ The [E] Indicator

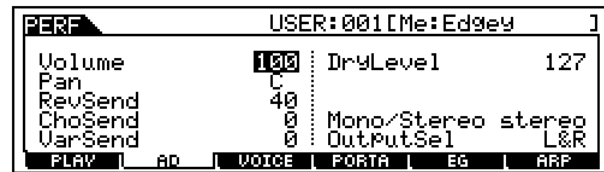
If you alter any parameters in the Performance Play mode, the [E] indicator will appear in the top left of the display. This indicates that the current performance has been modified but not yet stored.



NOTE If you select another performance during editing, the [E] indicator will disappear and all your edits will be lost. It is a good idea to store the edited performance data from the Performance Store mode (page 176). Even if you lose the performance edited data, you can restore it by using the Edit Recall function (page 175).

● [F2] Performance Play A/D

From this display you can make settings for the A/D input parts. The A/D input feature lets you input external audio (such as from a microphone or guitar), then process and mix it with the other sounds of the MOTIF. The audio signal can be input via the A/D INPUT jack or the mLAN terminal (if an optional mLAN8E has been installed).



NOTE In the Utility mode, you can set whether you use the A/D INPUT jack or the mLAN8E jack as an input jack for the A/D part. See page 252.

● Volume

Determines the output level of the A/D part.

□ Settings 0 ~ 127

● Pan

Determines the stereo pan position of the A/D part.

□ Settings L63 (Left) ~ C (Center) ~ R63 (Right)

● RevSend

Determines the Send level of the A/D part signal sent to the Reverb effect. For details about effect connection, see page 40.

□ Settings 0 ~ 127

● ChoSend

Determines the Send level of the A/D part signal sent to the Chorus effect. For details about effect connection, see page 40.

□ Settings 0 ~ 127

● VarSend (Variation Send)

Determines the Send level of the A/D part signal sent to the Variation effect. For details about effect connection, see page 40.

□ Settings 0 ~ 127

● DryLevel

Determines the level of the A/D part which has not been processed with the System Effects (Reverb, Chorus, Variation). See page 252.

□ Settings 0 ~ 127

● Mono/Stereo

Determines the signal configuration for the the A/D input audio, or how the signal or signals are routed (stereo or mono). When the mLAN terminal (with the optional mLAN8E installed) is set as the input source for the A/D part, this parameter cannot be set.

□ Settings stereo, L mono, R mono, L + R mono

stereo

Audio received via both A/D INPUT jacks is processed in stereo.

L (left) mono

Audio received via the L (left) A/D INPUT jack is processed in mono.

R (right) mono

Audio received via the R (right) A/D INPUT jack is processed in mono.

L + R mono

Audio received via both A/D INPUT jacks is mixed and processed in mono.

• **OutputSel (Output Select)**

Determines the output jack assignment for the A/D part.

Settings See below.

LCD	Output jack	Stereo/ Mono	
L&R	OUTPUT L&R	Stereo	
as1&2	AIEB2 ASSIGNABLE OUTPUT 1&2	Stereo 1 : L 2 : R	*
as3&4	AIEB2 ASSIGNABLE OUTPUT 3&4	Stereo 3 : L 4 : R	*
as5&6	AIEB2 ASSIGNABLE OUTPUT 5&6	Stereo 5 : L 6 : R	*
as1	AIEB2 ASSIGNABLE OUTPUT 1	Mono	*
as2	AIEB2 ASSIGNABLE OUTPUT 2	Mono	*
as3	AIEB2 ASSIGNABLE OUTPUT 3	Mono	*
as4	AIEB2 ASSIGNABLE OUTPUT 4	Mono	*
as5	AIEB2 ASSIGNABLE OUTPUT 5	Mono	*
as6	AIEB2 ASSIGNABLE OUTPUT 6	Mono	*

* Available only when the optional AIEB2 board has been installed.

● **[F3] Performance Play Voices**

From this display you can select a voice for each part and determine the note range it can be played from.

1 Move the cursor to the desired part, then move it to the voice bank or number you wish to set for the part.

2 If the part is blank (i.e., no voice has been assigned), use these to enable a voice (Internal or Plug-in) for the part. Once a voice is assigned, select the specific bank and voice with the [INC/YES] and [DEC/NO] buttons, or the data dial. You can also use the BANK, GROUP and NUMBER buttons to select a voice (page 124).



4 Use this to delete the assigned voice, if desired.

3 Use these to set the note range, low and high, for the part's voice.

• **[SF1] ADD INT (Add Internal Voice)**

If no voice has been assigned and the selected part is blank, press this to enable an Internal voice for the part.

• **[SF2] ADD PLG (Add Plug-in Voice)**

If no voice has been assigned and the selected part is blank, press this to enable a Plug-in voice for the part.

• **[SF3] DELETE**

Pressing this button deletes the voice assignment for the selected part, leaving the part blank.

• **[SF4] LIMIT L (Note Limit Low)**

This sets the lowest note of the range over which the voice of the selected part sounds. Simultaneously hold down this button and press the desired key on the keyboard to set the note.

• **[SF5] LIMIT H (Note Limit High)**

This sets the highest note of the range over which the voice of the selected part sounds. Simultaneously hold down this button and press the desired key on the keyboard to set the note.

● **[F4] Performance Play Portamento**

From this display you can set the Portamento parameters for each part. Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next.



• **PortaSw (Portamento Switch)**

Determines whether Portamento is on or off for all parts. (This is a global switch and overrides the individual part settings in Part Switch below.)

Settings off, on

• **Time**

Determines the pitch transition time. This parameter offsets the same parameter in the part edit (page 171). Higher values result in longer transition times.

Settings -64 ~ +63

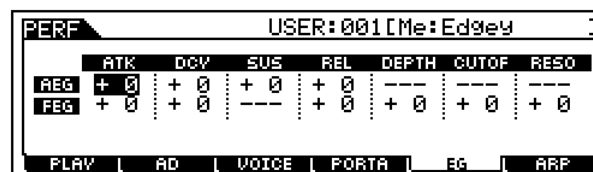
• **PartSwitch**

Determines whether Portamento is on or off for each individual part.

● **[F5] Performance Play EG(Envelope Generator)**

Basic Structure (page 47)

This display contains the basic EG settings, both volume and filter, for the performance, as well as the filter's cutoff frequency and resonance settings. The settings made here are applied as offsets to the AEG and FEG settings in the Performance Edit mode (page 173, page 174).

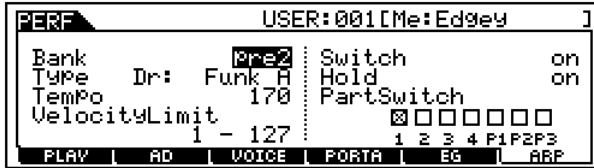


Same as in Voice Play mode. See page 127 .

● [F6] Performance Play Arpeggio

Basic Structure (page 55)

This display contains the basic settings for Arpeggio playback, including Type and Tempo.



The parameters are the same as in the Voice Play mode (page 127) except for the following one.

● PartSwitch

Determines whether Arpeggio is on or off for the selected part.

Performance Edit mode

In this mode, Performances can be created and edited.

◆ The [E] Indicator

If you alter any parameters in Performance Edit Mode, the [E] indicator will appear in the top left of the display. This indicates that the current performance has been modified but not yet stored.

NOTE Even if you exit to the Performance Play mode, your edited settings for the current performance will be maintained — as long as you don't select another performance.

NOTE The [E] indicator is also displayed in the Performance Play mode.

◆ The Compare Function

This convenient function lets you switch between the edited performance and its original, unedited condition — allowing you to listen to the difference between the two and better hear how your edits affect the sound.

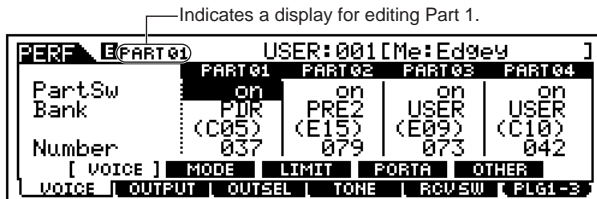
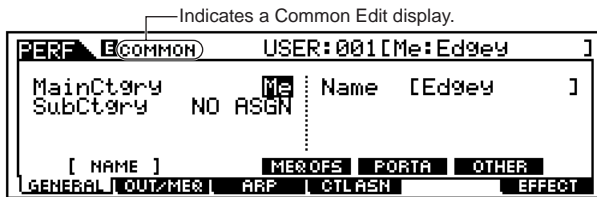
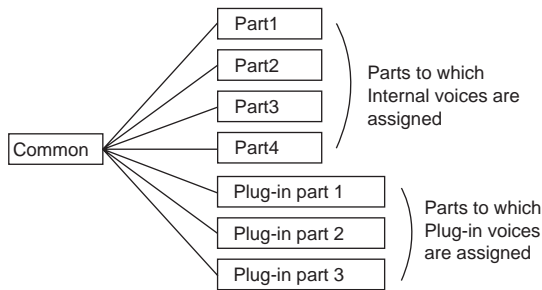
- 1 In the Performance Edit mode, press the [COMPARE] button so that its indicator flashes. The [E] indicator is shown at the top of the display (in place of the [E] indicator), and the original, unedited performance is restored for monitoring.



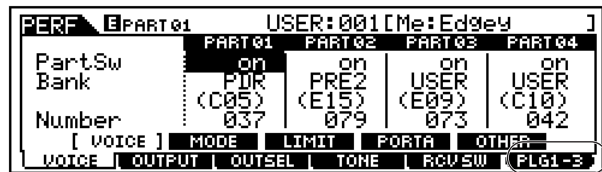
- 2 Press the [EDIT] button again to disable the “Compare” function and restore the settings for your edited Performance. While Compare is active, you cannot make edits to the performance.

◆ Common (to all parts) edit and Part edit

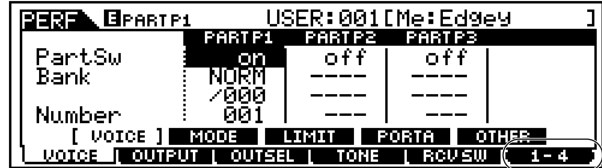
Each performance can contain a maximum of four parts, selected from a total seven parts — four parts from the Internal tone generator, and three from the installed Plug-in boards. Use Common Edit to edit the settings for all of the parts. There are two types of Voice Edit displays: those for Common Edit, and those for editing individual parts.



< Display for editing parts 1 - 4 >



< Display for editing Plug-in parts 1 - 3 >



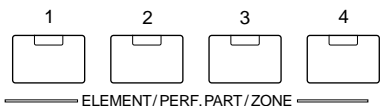
[F6] button

◆ Basic Procedure

- 1 Press the [PERFORMANCE] button to enter the Performance Play mode. (The indicator lights.)
- 2 Select a Performance to be edited.
- 3 Press the [EDIT] button to enter the Performance Edit mode. (The indicator lights.)
- 4 Select a Part to be edited.
 - To edit parameters common to all of the parts, press the [DRUM KITS] button (which serves as a “COMMON” button here).



- To edit parameters of the individual parts, select the desired part with the corresponding NUMBER button ([1] - [4], or in the case of the Plug-in parts, [1] - [3]).



To switch between the Part 1 - 4 display and the Plug-in Part 1 - 3 display, press the [F6] button.

5 Select the menu you wish to edit by pressing the [F1] - [F6] and [SF1] - [SF5] buttons.

6 Edit the parameters for the selected performance.

7 Store the settings edited in step #6 to the User Memory as required.

8 Press the [EXIT] button to exit from the Performance Edit mode.

- For details on step #2, refer to “Performance Play mode” on page 162.
- For detailed instructions on steps #5 - #6, see the explanations below.
- For details on step #7, refer to “Performance Store mode” on page 176.

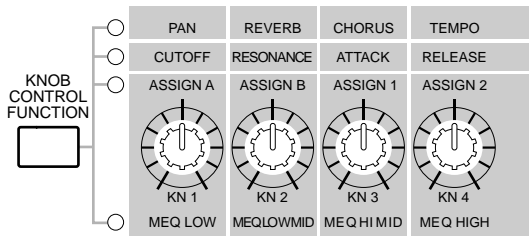
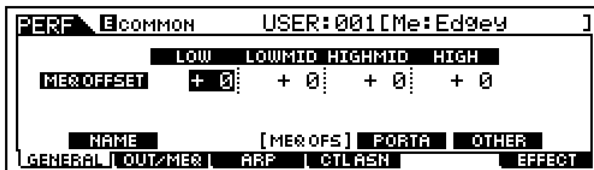
■ Common edit

● [F1]-[SF1] Common General Name

From this display you can create a name for the performance. The performance name can contain up to 10 characters. For detailed instructions on naming, see “Basic Operation” on page 75.

● [F1]-[SF3] Common General Master EQ Offset

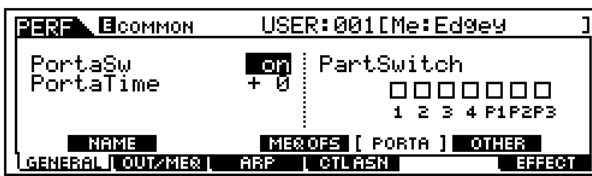
From this display you can adjust the master (global) EQ settings for all parts of the selected performance. The level of each of the four bands (with the exception of “MID”) can be adjusted. Moreover, you can also tweak these settings directly from the four Knobs on the front panel.



□ Settings -64 ~ +63

● [F1]-[SF4] Common General Portamento

From this display you can set the Portamento parameters for all parts of the selected performance. Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next.



• Switch

Determines whether Portamento is on or off for the entire performance. Keep in mind that this is a global control; you can also switch Portamento on and off for individual parts in Part Switch below.

□ Settings off, on

• Time

Determines the pitch transition time. This parameter offsets the same parameter in the part edit settings (page 170). Higher values result in longer transition times.

□ Settings -64 ~ +63

• PartSwitch

Determines whether Portamento is on or off for each individual part.

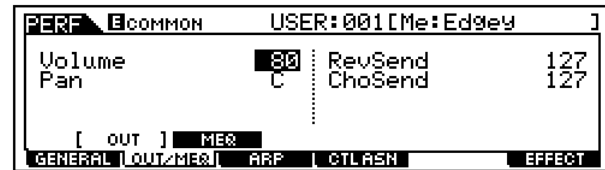
● [F1]-[SF5] Common General Other

From this display you can set the control functions for the Knobs and related parameters.



With the exception of Pitch Bend, which cannot be set here, these parameters are the same as in the Voice Edit mode (page 132).

● [F2]-[SF1] Common Output



• Volume

Determines the output level of the selected performance. You can adjust the overall volume, keeping the balance between all parts.

□ Settings 0 ~ 127

• Pan

Determines the stereo pan position of the selected performance. This parameter offsets the same parameter in the part edit setting (page 163). You can also adjust this parameter using the PAN knob on the front panel.

□ Settings L63 (Left) ~ C (Center) ~ R63 (Right)

NOTE A setting of "C" (center) maintains the individual Pan settings of each Part.

• RevSend

Determines the Send level of the signal sent from Insertion Effect 1/2 (or the bypassed signal) to the Reverb effect. You can also adjust this parameter using the REVERB knob on the front panel.

□ Settings 0 ~ 127

• ChoSend

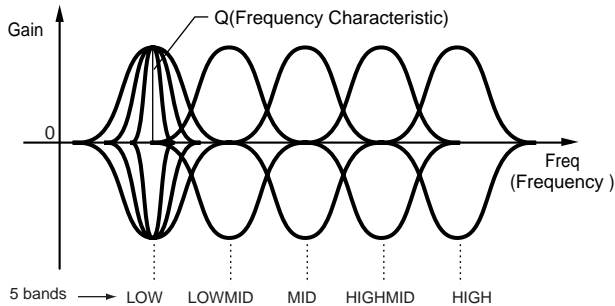
Determines the Send level of the signal sent from Insertion Effect 1/2 (or the bypassed signal) to the Chorus effect. You can also adjust this parameter using the [CHORUS] knob on the front panel.

□ Settings 0 ~ 127

● **[F2]-[SF2] Common MEQ(Master Equalizer)**

From this display you can apply five-band equalization to all parts of the selected performance.

PERF	COMMON	USER:001[Me:Edg9ey]				
SHAPE	shelv	LOW	LOWMID	MID	HIGHMID	HIGH
FREQ	80	200	500	3.2k	8.0k	
GAIN	+0	+0	+0	+6	+12	
Q	0.7	0.7	0.7	0.7	0.7	
OUT [MER]						
GENERAL OUT/MER ARP CTLASN EFFECT						

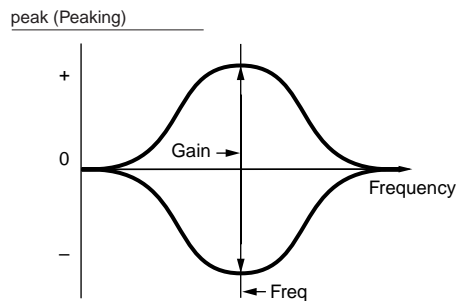
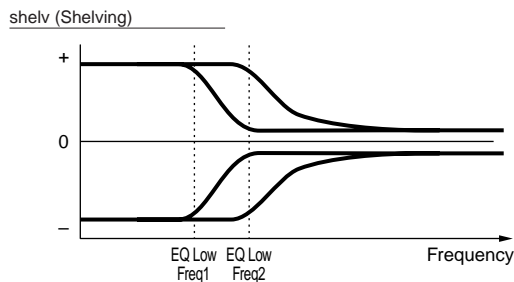


● **Shape**

Determines whether the equalizer type used is Shelving or Peaking. The Peaking type attenuates/boosts the signal at the specified Frequency setting, whereas the Shelving type attenuates/boosts the signal at frequencies above or below the specified Frequency setting.

This parameter is available for LOW, MID, and HIGH.

- Settings shelv (Shelving type), peak (Peaking type)



● **Freq (Frequency)**

Determines the center frequency. Frequencies around this point are attenuated/boosted by the Gain setting.

- Settings
 - LOW: Shelving 32Hz ~ 2.0kHz
 - Peaking 63Hz ~ 2.0kHz
 - LOW MID, MID, HIGH MID: 100Hz ~ 10.0kHz
 - High: 500Hz ~ 16.0kHz

● **Gain**

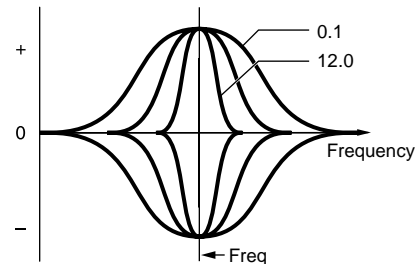
Determines the level gain for the Frequency (set above), or the amount the selected frequency band is attenuated or boosted.

- Settings -12dB ~ 0dB ~ +12dB

● **Q (Frequency Characteristic)**

This varies the signal level at the Frequency setting to create various frequency curve characteristics.

- Settings 0.1 ~ 12.0



● **[F3]-[SF1] Common Arpeggio Arpeggio type**

Basic Structure (page 55)

Same as in Normal Voice Common Edit. See page 132.

● **[F3]-[SF2] Common Arpeggio Arpeggio limit**

Same as in Normal Voice Common Edit. See page 133.

● **[F3]-[SF3] Common Arpeggio Play FX (Effect)**

Same as in Normal Voice Common Edit. See page 133.

● **[F3]-[SF4] Common Arpeggio Output channel**

From this display you can set a separate MIDI output channel for the Arpeggio playback data, letting you have the Arpeggio sound from an external tone generator or synthesizer.

PERF	COMMON	USER:001[Me:Edg9ey]	
OutputSwitch	off	:	
TransmitCh	1	:	
TYPE LIMIT PLAYFX [OUTCH]			
GENERAL OUT/MER ARP CTLASN EFFECT			

• **OutputSwitch**

When this is set to on, Arpeggio playback data is output from the MIDI terminal.

Settings on, off

• **TransmitCh**

Determines the MIDI transmit channel for Arpeggio playback data.

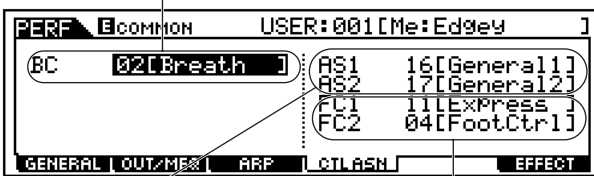
Settings 1 ~ 16

● **[F4] Common Controller Assign**

The controllers and knobs on the front panel can be used to change and adjust a variety of parameters — in real time, and simultaneously.

For example, you could use the ASSIGN 1 and 2 knobs to control effect depth for two different effects, while using the Foot Controller to control modulation. These control assignments are called “Controller Assign.” You can have independent Controller Assign settings for each performance.

Set the Control Change number for the Breath Controller. The function set here can be controlled by the Breath Controller connected to the BREATH CONTROLLER (page 28) jacks on the rear panel.



Determines the Control Change numbers for the ASSIGN 1 and 2 knobs on the front panel.

Determines the Control Change numbers for Foot Controllers 1 and 2. To control these functions, connect Foot Controllers to the FOOT CONTROLLER jacks on the rear panel (page 28).

Settings (See chart below)

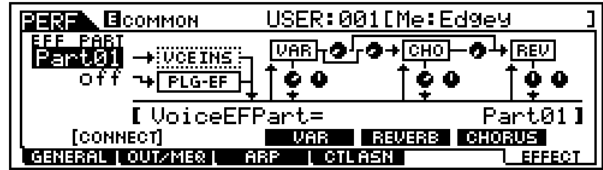
Control Change Numbers

	LCD		LCD
00	off	32	off
01	ModWheel	64	Sustain
02	Breath	65	PortaSw
04	FootCtrl	66	Sostenut
05	PortTime	67	Soft
06	Data Ent	72	Release
07	MainVol	74	Bright
10	Panpot	75	Decay
11	Express	84	PortaCtl
16	General 1	91	Effect 1
17	General 2	92	Effect 2
18	General 3	93	Effect 3
19	General 4		

● **[F6]-[SF1] Common Effect Connection**

Basic Structure (page 40)

This display gives you comprehensive control over the effects.



• **EF PART (Effect part) → VCE INS (Voice Insertion)**

Determines the part to which the Insertion effect is applied. The Insertion connection type (page 40) depends on the voice of the selected part.

Settings Part 1 ~ 4, Plug-in Part 1 ~ 3, off

• **EF PART (Effect part) → PLG-EF (Plug-in Effect)**

Determines the part to which the Insertion effect is applied. This parameter is available only when a special Effect Plug-in board (VH) has been installed.

Settings Part 1 ~ 4, Plug-in Part 1 ~ 3, A/D, off

• **Variation Type**

Determines the Variation effect type.

Settings Refer to the Effect Types list in the separate Data List booklet.

• **Variation Return**

Determines the Return level of the Variation Effect.

Settings 0 ~ 127

• **Variation Pan**

Determines the pan position of the Variation effect sound.

Settings L64 (far left) ~ cnt (center) ~ R63 (far right)

• **Variation To Reverb**

Determines the Send level of the signal sent from the Variation Effect to the Reverb Effect.

Settings 0 ~ 127

• **Variation To Chorus**

Determines the Send level of the signal sent from the Variation Effect to the Chorus Effect.

Settings 0 ~ 127

• **Chorus Type**

Determines the Chorus effect type.

Settings Refer to the Effect Types list in the separate Data List booklet.

• **Chorus Return Level**

Determines the Return level of the Chorus Effect.

Settings 0 ~ 127

• **Chorus Pan**

Determines the pan position of the Chorus effect sound.

Settings L64 (far left) ~ cnt (center) ~ R63 (far right)

• **Chorus to Reverb**

Determines the Send level of the signal sent from the Chorus Effect to the Reverb Effect.

□ Settings 0 ~ 127

• **Reverb Type**

Determines the Reverb effect type.

□ Settings Refer to the Effect Types list in the separate Data List booklet.

• **Reverb Return**

Determines the Return level of the Reverb Effect.

□ Settings 0 ~ 127

• **Reverb Pan**

Determines the pan position of the Reverb effect sound.

□ Settings L64 (far left) ~ cnt (center) ~ R63 (far right)

● **[F6]-[SF2], [SF3], [SF4], [SF5] Common Effect Parameter Plug-in Insertion, Reverb, Chorus, Variation**

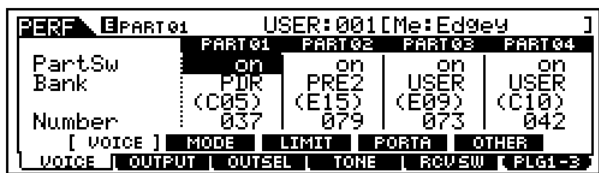
Basic Structure (page 39)

The number of parameters and values available differs depending on the currently selected effect type. For more information, see the Effect Type List in the separate Data List booklet.

■ **Part edit**

● **[F1]-[SF1] Part Voice Voice**

You can select a voice for each part. When the cursor is located at the Bank, you can select a voice by using the BANK, GROUP, NUMBER button with the [TRACK SELECT] indicator off (page 124 ~ page 125).



• **Part Switch**

Set each part to on or off.

□ Settings on, off

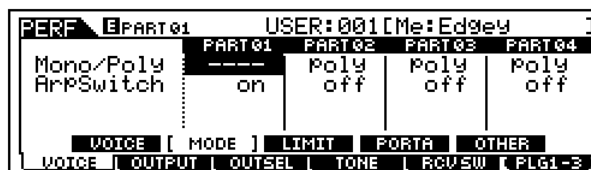
• **Bank**

Select a Voice Bank (page 124) for each part. For details about the Plug-in Voice Bank, refer to the Owner's Manual for your Plug-in Board.)

• **Number**

Select a Voice Program number (page 124) for each part. For details about the Plug-in Voice Program number, refer to the Owner's Manual for your Plug-in Board.)

● **[F1]-[SF2] Part Voice Play Mode**



• **Mono/Poly**

Select monophonic or polyphonic playback for each part. Select whether the Voice is played back monophonically (single notes only) or polyphonically (multiple simultaneous notes).

□ Settings Mono, Poly

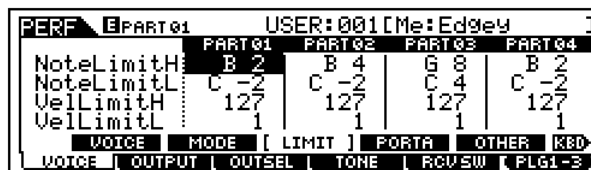
NOTE This parameter is not available for the part to which the Drum Voice is assigned.

• **ArpeggioSw (Arpeggio Switch)**

Switch the Arpeggio for the currently selected Part on or off.

□ Settings on, off

● **[F1]-[SF3] Part Voice Limit**



• **Note Limit H, L (High, Low)**

Set the lowest and highest notes of the keyboard range for each Part. Each Part will only sound for notes played within its specified range.

□ Settings C -2 ~ G8

NOTE If you specify the highest note first and the lowest note second, for example "C5 to C4," then the note range covered will be "C-2 to C4" and "C5 to G8."

NOTE You can set the note by pressing the keyboard while holding the [INFORMATION] button.

NOTE When a Plug-in voice is assigned to a part of the selected Performance, some parameters may not be available depending on the installed Plug-in board.

• **Velocity Limit H, L (High, Low)**

Set the minimum and maximum values of the velocity range within which each Part will respond. Each Part will only sound for notes played within its specified velocity range.

□ Settings 1 ~ 127

NOTE If you specify the maximum value first and the minimum value second, for example "93 to 34," then the velocity range covered will be "1 to 34" and "93 to 127."

● **[F1]-[SF4] Part Voice Portamento**

Set the Portamento parameters for each part. Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next.

PERF	PART01	USER:001 [Me:Edgely]	PART01	PART02	PART03	PART04											
Switch	---	off	off	off	off	off											
Time	---	64	64	64	64	64											
Mode	---	full	full	full	full	full											
<table border="1"> <tr> <td>VOICE</td> <td>MODE</td> <td>LIMIT</td> <td>PORTA</td> <td>OTHER</td> </tr> <tr> <td>VOICE</td> <td>OUTPUT</td> <td>OUTSEL</td> <td>TOPE</td> <td>RCVSW</td> <td>PLG1-3</td> </tr> </table>							VOICE	MODE	LIMIT	PORTA	OTHER	VOICE	OUTPUT	OUTSEL	TOPE	RCVSW	PLG1-3
VOICE	MODE	LIMIT	PORTA	OTHER													
VOICE	OUTPUT	OUTSEL	TOPE	RCVSW	PLG1-3												

● **Switch**

Switch Portamento on or off.
 Settings off,on

● **Time**

Set the pitch transition time. Higher values mean longer transition times.
 Settings 0 ~ 127

● **Mode**

Set the Portamento mode.
 Settings fingered, fulltime

fingered

Portamento is only applied when you play legato (playing the next note before releasing the previous one).

fulltime

Portamento is always applied.

NOTE The Mode setting is not available for the Plug-in part.

NOTE These Portamento parameters above are not available for the part to which the Drum voice is assigned.

● **[F1]-[SF5] Part Voice Other**

PERF	PART01	USER:001 [Me:Edgely]	PART01	PART02	PART03	PART04											
PB Upper	+ 2	+ 2	+ 2	+ 2	+ 2	+ 2											
PB Lower	- 2	- 2	- 2	- 2	- 2	- 2											
VelSensDpt	64	64	64	64	64	64											
VelSensOfs	64	64	64	64	64	64											
<table border="1"> <tr> <td>VOICE</td> <td>MODE</td> <td>LIMIT</td> <td>PORTA</td> <td>OTHER</td> </tr> <tr> <td>VOICE</td> <td>OUTPUT</td> <td>OUTSEL</td> <td>TOPE</td> <td>RCVSW</td> <td>PLG1-3</td> </tr> </table>							VOICE	MODE	LIMIT	PORTA	OTHER	VOICE	OUTPUT	OUTSEL	TOPE	RCVSW	PLG1-3
VOICE	MODE	LIMIT	PORTA	OTHER													
VOICE	OUTPUT	OUTSEL	TOPE	RCVSW	PLG1-3												

● **PB (Pitch Bend) Upper, Lower ... When editing parts 1 - 4:**

These two parameters determine the pitch change range (in semitones) of the Pitch Bend wheel for the part's voice. For example, a Lower setting of -12 would result in the pitch being lowered up to a maximum of one octave (12 semitones) when the Pitch Bend wheel is moved downwards. Similarly, setting the Upper parameter to + 12 would result in a maximum pitch rise of one octave when the wheel is moved upwards.

Settings -48 ~ 0 ~ +24

● **PB (Pitch Bend) Range ... When editing Plug-in parts 1 - 3, or when a Drum voice is selected:**

Determines the pitch change range (in semitones) of the Pitch Bend wheel for the Plug-in part's voice (or Drum voice). Unlike the Pitch Bend setting for parts 1 - 4 above, the Upper and Lower ranges for the Plug-in parts cannot be set independently.

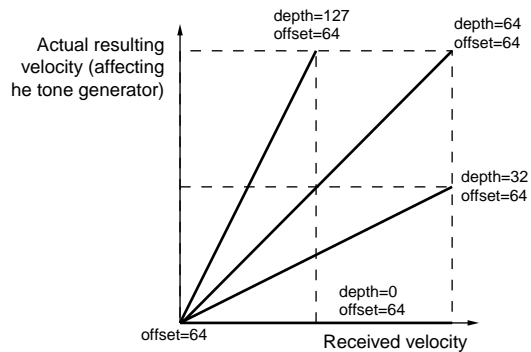
Settings -24 ~ 0 ~ +24

● **VelSensDpt (Velocity Sensitivity Depth)**

Determines the velocity sensitivity of the part's voice, or how much the level of the voice changes in response to your playing strength (velocity). The higher the value, the more the voice changes in response to changes in your playing strength.

Settings 0 ~ 127

Changes to actual velocity for different Velocity Sensitivity Depth settings



NOTE The settings here apply when Velocity Sensitivity Offset (below) is set to a median or neutral value of "64."

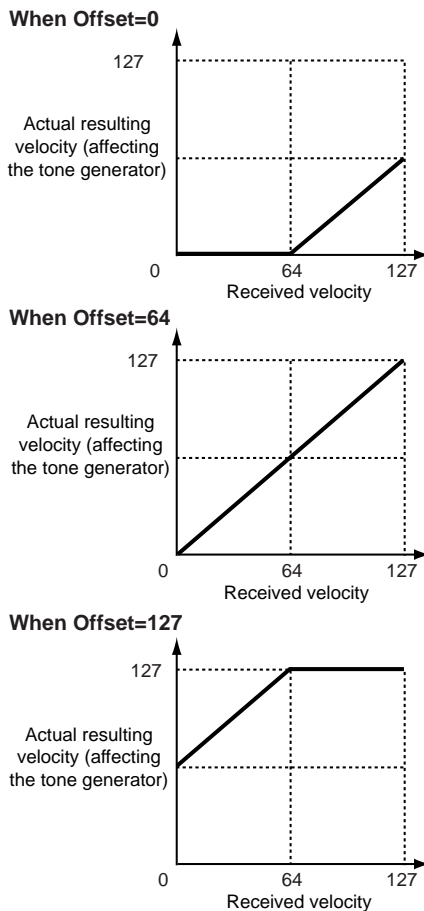
● **VelSensOfst (Velocity Sensitivity Offset)**

Determines the amount by which received velocities are adjusted for the actual velocity effect. This lets you raise or lower all velocities by the same amount — allowing you to automatically compensate for playing too strongly or too softly.

Settings 0 ~ 127

Changes to actual velocity for different Velocity Sensitivity Offset settings.

NOTE The settings here apply when Velocity Sensitivity Depth (above) is set to a median or neutral value of "64."



In the first example, Offset is set to “0,” lowering all received velocities by 64. This creates a lower velocity “plateau” — all of your softer playing (up to a velocity of 64) results in the same actual velocity. Also no matter how strongly you play, the actual velocity value never exceeds 64.

In the second example, Offset is set to a neutral value of “64,” creating a linear relationship between received and actual velocity. In other words, the velocity at which you play is relayed to the tone generator as is — with no offset.

In the third example, Offset is at the maximum of “127,” which raises all received velocities by 64. This creates a “clipping” effect in the higher velocities — no matter how strongly you play (past a velocity of 64), the actual velocity value will always be 127 (maximum).

● [F2]-[SF1] Part Output Volume/Pan

PERF	[PART01]	USER:001[Me:Edgey]			
	PART01	PART02	PART03	PART04	
Volume	98	100	100	101	
Pan	C	C	C	C	
VoiceELPan	on	on	on	on	
[VOL/PAN] [EFSEND]					
VOICE OUTPUT OUTSEL TONE RCUSW PLG1-3					

• Volume

Determines the volume for each part, giving you detailed control over the level balance among the parts.

□ Settings 0 ~ 127

• Pan

Determines the stereo pan position for each part.

□ Settings L64 (far left) ~ cnt (center) ~ R63 (far right)

• Voice Pan

Determines whether the individual pan settings for each voice (made in the Voice Edit mode) are applied or not. Keep in mind that the settings made in Pan above are applied as offsets to the Voice Edit settings. When this is set to “off,” the basic pan position for the selected part is set to center.

□ Settings on, off

NOTE This parameter is not available for the Plug-in parts.

● [F2]-[SF2] Part Output Effect Send

PERF	[PART01]	USER:001[Me:Edgey]			
	PART01	PART02	PART03	PART04	
RevSend	23	127	127	127	
ChoSend	0	59	127	0	
VarSend	127	0	0	19	
DryLevel	90	127	127	127	
[VOL/PAN] [EFSEND]					
VOICE OUTPUT OUTSEL TONE RCUSW PLG1-3					

• RevSend (Reverb Send)

Determines the send level for the Reverb effect of the selected part, giving you detailed control over the Reverb balance among the parts.

□ Settings 0 ~ 127

• ChoSend (Chorus Send)

Determines the send level for the Chorus effect of the selected part, giving you detailed control over the Chorus balance among the parts.

□ Settings 0 ~ 127

• VarSend (Variation Send)

Determines the send level for the Variation effect of the selected part, giving you detailed control over the Variation balance among the parts.

□ Settings 0 ~ 127

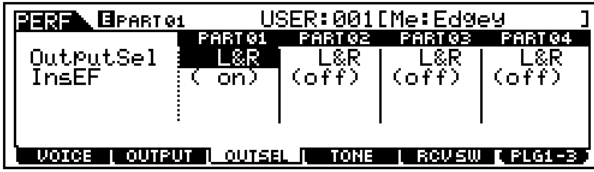
• Dry Level

Determines the level of the unprocessed (dry) sound of the selected part, letting you control the overall effect balance among the parts.

□ Settings 0 ~ 127

● **[F3] Part Output Select**

From this display you can set certain output parameters for the selected part.



● **InsEF (Insertion Effect)**

This shows whether the Insertion effect is applied or not for each part. This is for display purposes only and cannot be set here. To set this, see “EF PART” (Effect Part) on page 40.

● **OutputSel (Output Select)**

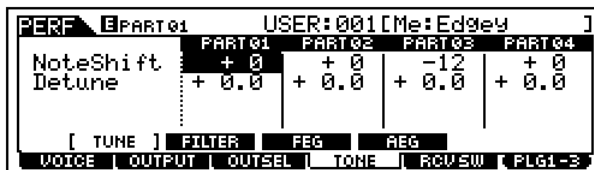
Determines the specific output(s) for the individual part. You can assign each individual part’s voice to be output from a specific hardware output jack on the rear panel. By installing the optional AIEB2 board, you can expand the number of assignable outputs.

❑ Settings See below.

LCD	Output jacks	Stereo/ Mono	
L&R	OUTPUT L and R	Stereo	
asL&R	ASSIGNABLE OUTPUT L and R	Stereo	
as1&2	ASSIGNABLE OUTPUT 1 and 2 on the AIEB2	Stereo 1 : L 2 : R	*
as3&4	ASSIGNABLE OUTPUT 3 and 4 on the AIEB2	Stereo 3 : L 4 : R	*
as5&6	ASSIGNABLE OUTPUT 5 and 6 on the AIEB2	Stereo 5 : L 6 : R	*
asL	ASSIGNABLE OUTPUT L	Mono	
asR	ASSIGNABLE OUTPUT R	Mono	
as1	ASSIGNABLE OUTPUT 1 on the AIEB2	Mono	*
as2	ASSIGNABLE OUTPUT 2 on the AIEB2	Mono	*
as3	ASSIGNABLE OUTPUT 3 on the AIEB2	Mono	*
as4	ASSIGNABLE OUTPUT 4 on the AIEB2	Mono	*
as5	ASSIGNABLE OUTPUT 5 on the AIEB2	Mono	*
as6	ASSIGNABLE OUTPUT 6 on the AIEB2	Mono	*
drum	This setting is for Drum voice parts. When this is selected, the output destination settings for each Drum key (made in Drum Key Oscillator Output, page 149) are enabled.	Mono	

*Available only when the optional AIEB2 board has been installed.

● **[F4]-[SF1] Part Tone Tune**



● **NoteShift**

Determines the pitch (key transpose) setting for each part in semitones.

❑ Settings -24 ~ +24

● **Detune**

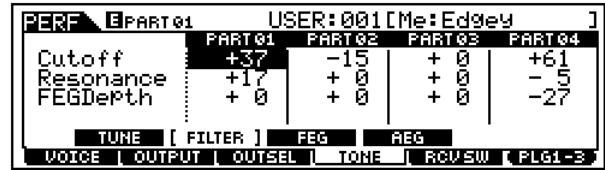
Determines the fine tuning for each part.

❑ Settings -12.8Hz ~ +12.7Hz

● **[F4]-[SF2] Part Tone Filter**

Basic Structure (page 46)

From this display you can set various Filter related settings, to change the tonal qualities of the selected part’s voice.



● **Cutoff**

Determines the cutoff frequency for each part.

This parameter is available for the LPF when the filter used by the part is a combination type of LPF and HPF.

❑ Settings -64 ~ 0 ~ +63

● **Resonance**

Determines the amount of filter resonance or emphasis of the Cutoff Frequency for each part.

❑ Settings -64 ~ 0 ~ +63

● **FEG Depth**

Determines the Filter Envelope Generator depth (amount of Cutoff frequency) for each part.

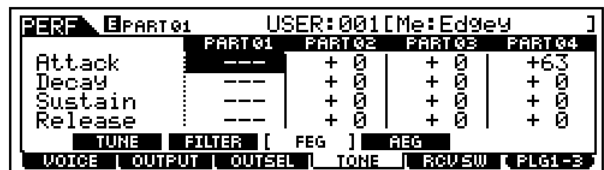
❑ Settings 0 ~ 127

[NOTE] The FEG Depth setting is not available for the Plug-in parts.

● **[F4]-[SF3] Part Tone FEG**

Basic Structure (page 47)

From this display you can set the FEG (Filter Envelope Generator) parameters for each part. The following parameters offset the same parameters in the Voice (Element) Edit mode (page 142).



● **Attack**

Determines the FEG Attack Time for each part.

❑ Settings -64 ~ 0 ~ +63

● **Decay**

Determines the FEG Decay Time for each part.

❑ Settings -64 ~ 0 ~ +63

● **Sustain**

Determines the FEG Sustain Level for each part.

❑ Settings -64 ~ 0 ~ +63

• **Release**

Determines the FEG Release Time for each part.

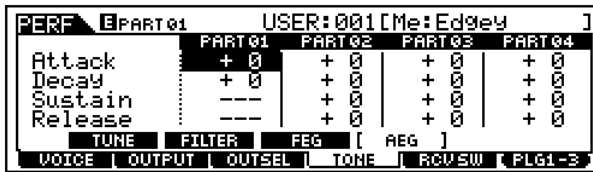
□ Settings -64 ~ 0 ~ +63

NOTE The FEG settings are not available for Plug-in parts or parts to which Drum voices have been assigned.

● **[F4]-[SF4] Part Tone AEG**

Basic Structure (page 47)

From this display you can set the basic AEG (Amplitude Envelope Generator) parameters for each part. The following parameters offset the same parameters in the Voice (Element) Edit mode (page 145).



• **Attack**

Determines the AEG Attack Time for each part.

□ Settings -64 ~ 0 ~ +63

• **Decay**

Determines the AEG Decay Time for each part.

□ Settings -64 ~ 0 ~ +63

• **Sustain**

Determines the AEG Sustain Level for each part.

□ Settings -64 ~ 0 ~ +63

NOTE The Sustain level setting is not available for Plug-in parts or parts to which Drum voices have been assigned.

• **Release**

Determines the AEG Release Time for each part.

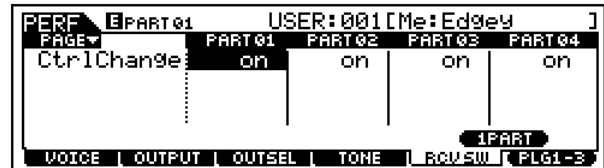
□ Settings -64 ~ 0 ~ +63

NOTE The Release Time setting is not available for the part to which the Drum Voice is assigned.

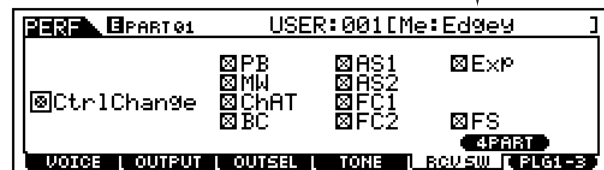
● **[F5] Part Receive Switch**

From this display you can set how each individual part responds to various MIDI data, such as Control Change and Program Change messages. When the relevant parameter is set to “on,” the corresponding part responds to the appropriate MIDI data.

Note that two different display types are provided (see below). Each display type features the same settings in a different format; use the type you feel most comfortable with.



↓ [SF5]button



Performance Job mode

The Performance Job mode contains various convenient operations (called “Jobs”), including initializing (resetting) performance data or recalling previous edits.

◆ Basic Procedure

- 1 In the Performance Play mode, select a performance you wish to execute the Job on.
- 2 Press the [JOB] button to enter the Performance Job Mode.
- 3 Select the desired Job menu by pressing the appropriate button, [F1] - [F4].
- 4 Set the relevant Job parameters.
- 5 Press the [ENTER] button. (The display prompts you for confirmation.)
- 6 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Job, press the [DEC/NO] button.

⚠ CAUTION

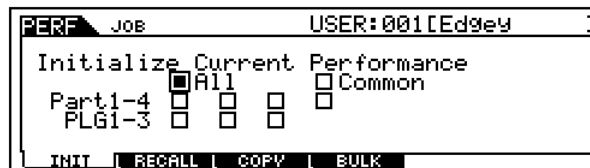
For Jobs that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

- 7 Press the [PERFORMANCE] button to exit from Performance Job mode and return to Performance Play mode.

- For detailed instructions on [steps #3 - #4](#), see the explanations below.

● [F1] Initialize

This function lets you reset (initialize) all performance parameters to their default settings. It also allows you to selectively initialize certain parameters, such as Common settings, settings for each part, and so on — very useful when creating a completely new performance from scratch.



- Type of parameter to be initialized

ALL

All settings for the selected performance are initialized.

Common

Common parameter settings for the selected performance are initialized.

Part 1 ~ 4, PLG 1 ~ 3

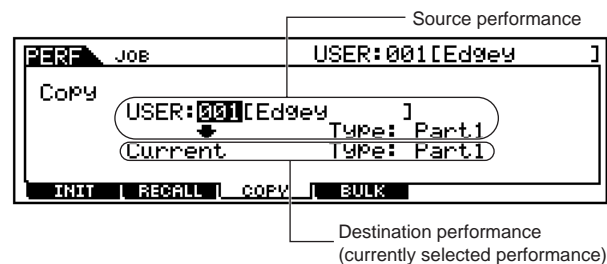
Part parameter settings for the selected performance are initialized.

● [F2] Edit Recall

If you are editing a performance and select a different performance without storing your edited one, all the edits you’ve made will be erased. If this happens, you can use Edit Recall to restore the performance with your latest edits intact.

● [F3] Copy

From this display you can copy Common and Part parameter settings from any performance to the performance you are editing. This is useful if you are creating a performance and wish to use some parameter settings from another performance.



● **Source performance**

Select a performance and data type to be copied.

- Data type Part 1 ~ 4, Plug 1 ~ 3

● **Data type of Destination performance (current selected performance)**

Set the Part of the destination Performance.

- Data type Part 1 ~ 4, Plug 1 ~ 3, Arp, Effect (Reverb, Chorus)

NOTE If you choose Arp (Arpeggio) or Effect, the Arpeggio data or Effect settings for the Voice assigned to the source Part will be copied.

● **[F4] Bulk Dump**

This function lets you send all your edited parameter settings for the currently selected performance to a computer or another MIDI device for data archiving.

NOTE You must set the correct MIDI Device Number in order to execute a Bulk Dump. For details, see page 258.

Performance Store mode

Basic Structure (page 63)

This function lets you store your edited performance to User memory.

 **CAUTION**

When you execute this, the settings for the destination memory will be overwritten. Important data should always be backed up to computer, a separate memory card or some other storage device.

◆ **Basic Procedure**

- 1 After editing the performance, press the [STORE] button to enter the Performance Store mode.
- 2 Select the destination Performance memory (number).
- 3 Press the [ENTER] button. (The display prompts you for confirmation.)
- 4 To execute the Store operation, press the [INC/YES] button. After the performance has been stored, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Store operation, press the [DEC/NO] button.

 **CAUTION**

For Store operations that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

Song Mode

Basic Structure (page 30)

Function Tree

.....

This section is devoted to the Song mode. To see how the Song mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30. The following detailed chart shows all of the display menus and parameter groups of the Song modes — giving you a quick, easy-to-understand overview of the song-related functions of the MOTIF. Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

[SONG]	[INFORMATION] SONG INFORMATION	P. 275
	[SONG] SONG PLAY	P. 179
	[F1] SONG PLAY	P. 179
	[F2] SONG GRID GROOVE	P. 181
	[F3] SONG TRACK OUTPUT CHANNEL	P. 182
	[F4] SONG TRACK LOOP ON/OFF	P. 182
	[F5] COPY PHRASE	P. 183
	[F6] SONG CHAIN PLAY/EDIT	P. 183
	[REC] SONG RECORD	P. 183
	SONG REC SETUP	P. 184
	[F1] SETUP	P. 184
	[F2] VOICE	P. 188
	[F3] ARP	P. 189
	[PLAY] SONG RECORDING	P. 183
	[F1] SETUP	P. 184
	[F2] VOICE	P. 188
	[STOP] SONG PLAY	P. 184
	[EDIT] SONG EDIT	P. 189
	[F1] CHANGE	P. 189
	[F5] INSERT	P. 190
	[F6] DELETE	P. 190
	[F2] VIEW FILTER	P. 192
	[F5] CLEAR ALL	P. 192
	[F6] SET ALL	P. 192
	[JOB] SONG JOB	P. 193
	[F1] UNDO/REDO	P. 193
	[F2] NOTE JOB LIST	P. 193
	QUANTIZE	P. 194
	MODIFY VELOCITY	P. 195
	MODIFY GATE TIME	P. 195
	CRESCENDO	P. 196
	TRANPOSE	P. 196
	GLIDE	P. 196
	CREATE ROLL	P. 196
	SORT CHORD	P. 197
	SEPARATE CHORD	P. 198
	[F3] EVENT JOB LIST	P. 198
	SHIFT CLOCK	P. 198
	COPY EVENT	P. 198
	ERASE EVENT	P. 199
	EXTRACT EVENT	P. 199
	CREATE CONTINUOUS DATA	P. 199
	THIN OUT	P. 200
	MODIFY CONTROL DATA	P. 200
	BEAT STRETCH	P. 200
	[F4] MEASURE JOB LIST	P. 201
	CREATE MEASURE	P. 201
	DELETE MEASURE	P. 201

[F5] TRACK JOB LIST	P. 201
COPY TRACK	P. 202
EXCHANGE TRACK	P. 202
MIX TRACK	P. 202
CLEAR TRACK	P. 202
NORMALIZE PLAY EFFECT	P. 203
DIVIDE DRUM TRACK	P. 203
PUT PHRASE TO ARP	P. 203
[F6] SONG JOB LIST	P. 203
COPY SONG	P. 203
SPLIT SONG TO PATTERN	P. 204
CLEAR SONG	P. 204
SONG NAME	P. 204
[MIX] SONG MIX	P. 205
[INFORMATION] MIX INFORMATION	P. 205
[MIX] MIX PART	P. 205
[F1] MIX VOLUME/PAN	P. 206
[F2] MIX AD	P. 206
[F3] MIX VOICE	P. 206
[F4] MIX EFFECT SEND	P. 206
[F5] MIX TEMPLATE	P. 206
[EDIT] MIXING EDIT	P. 207
[COMMON]	P. 207
[F1] COMMON GENERAL	P. 208
[SF1] MEQ OFFSET	P. 208
[SF5] OTHER	P. 208
[F2] COMMON MASTER EQ	P. 209
[F3] COMMON ARPEGGIO	P. 209
[SF1] TYPE	P. 209
[SF2] LIMIT	P. 209
[SF3] PLAY FX	P. 209
[SF4] OUTPUT CHANNEL	P. 209
[SF5] CLEAR USER ARPEGGIO	P. 209
[F4] COMMON CONTROLLER ASSIGN	P. 209
[F6] COMMON EFFECT	P. 210
[SF1] EFFECT CONNECT	P. 210
[SF2] PLG-EF	P. 210
[SF3] VARIATION	P. 210
[SF4] REVERB	P. 210
[SF5] CHORUS	P. 210
[PART SELECTION]	P. 210
[F1] PART VOICE	P. 210
[SF1] VOICE	P. 210
[SF2] PLAYMODE	P. 210
[SF3] LIMIT	P. 210
[SF4] PORTAMENTO	P. 210
[SF5] OTHER	P. 210
[F2] PART OUTPUT	P. 211
[SF1] VOLUME/PAN	P. 211
[SF2] EFFECT SEND	P. 211
[F3] PART OUTPUT SELECT	P. 211
OUTPUT SELECT	P. 211
[F4] PART TONE	P. 211
[SF1] TUNE	P. 211
[SF2] FILTER	P. 211
[SF3] FEG	P. 211
[SF4] AEG	P. 211
[F5] PART RECEIVE SWITCH	P. 212
[EDIT] MIX COMPARE	P. 212
[JOB] MIX JOB	P. 212
[F1] INITIALIZE	P. 212
[F2] EDIT RECALL	P. 213
[F3] COPY	P. 213
[F4] BULK DUMP	P. 213
[F5] COPY FROM PERFORMANCE	P. 213
[STORE] MIX STORE	P. 214

Song Play mode

Basic Structure (page 67) - Quick Start Guide (page 77)

In this mode, you can select and play individual User songs.

NOTE For details about songs and their track and memory structure, see page 51.

Basic Procedure

Basic Operation (page 67)

1 Press the [SONG] button to enter the Song Play mode. (The indicator lights.)

Song track number and data status

- No data has been recorded.
- MIDI sequence data has been recorded. (Indicates a MIDI track.)
- In addition to MIDI sequence data, the sample data has been recorded. (Indicates ansample track.)

Location setting for the selected song

Loc1=005 Loc2=010

Tempo for the selected song

Setting 001.0~300.0

Time signature for the selected song

Setting 1/16 ~ 16/16, 1/8 ~ 16/8, 1/4 ~ 8/4

Measure : Beat

(for current playback location)

Setting Depends on the song data

Transpose setting (for entire song)

Can be adjusted in semitones.
For example, when a value of +12 is set, the pitch of all of the data becomes one octave higher.
Setting -36 ~ +36

Currently selected song

01 : MOTIF_DEMO

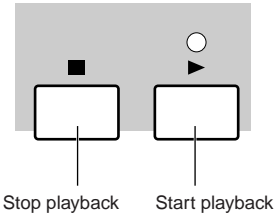
Song number Song name

Song track on/off status

- M Indicates muted track.
- S Indicates soloed track (page 180).

2 Select a song.

3 Start/Stop song playback.



4 Make necessary or desired settings (e.g., transpose, tempo, location, individual track on/off status, and so on) in the above display.

5 Select the menu you wish to edit by pressing the [F2] - [F6] buttons and edit the parameters in each display.

6 Set a Song Scene.

7 Repeat steps #3 through #6 as desired.

8 Press any other mode button to exit from the Song Play mode.

- For detailed instructions on steps #2, 4, 5, and 6, see the following explanations.
- For details on step #3, refer to “Quick Start Guide” on page 78.

Song Selection

The explanations here apply to step #2 of the Basic Procedure above.

NOTE The explanations here apply when these four button indicators are off.

1 Press any of the GROUP [A] - [D] buttons to select a Group.

NOTE Each letter group contains sixteen song numbers, and pressing the appropriate letter selects the first song in that letter's group. For example, press button [A] to select song 01, press button [B] to select song 17 and so on. (See chart below.)

2 Press any of the NUMBER [1] - [16] buttons to select a Song and return to the Song Play display.

● **Song numbers and the corresponding Group/Numbers**

Song Number	Group	Number	Song Number	Group	Number
001	A	1	033	C	1
002	A	2	034	C	2
003	A	3	035	C	3
004	A	4	036	C	4
005	A	5	037	C	5
006	A	6	038	C	6
007	A	7	039	C	7
008	A	8	040	C	8
009	A	9	041	C	9
010	A	10	042	C	10
011	A	11	043	C	11
012	A	12	044	C	12
013	A	13	045	C	13
014	A	14	046	C	14
015	A	15	047	C	15
016	A	16	048	C	16
017	B	1	049	D	1
018	B	2	050	D	2
019	B	3	051	D	3
020	B	4	052	D	4
021	B	5	053	D	5
022	B	6	054	D	6
023	B	7	055	D	7
024	B	8	056	D	8
025	B	9	057	D	9
026	B	10	058	D	10
027	B	11	059	D	11
028	B	12	060	D	12
029	B	13	061	D	13
030	B	14	062	D	14
031	B	15	063	D	15
032	B	16	064	D	16

You can also select a song by moving the cursor to the song number location and using the [INC/YES] and [DEC/NO] buttons or the data dial.

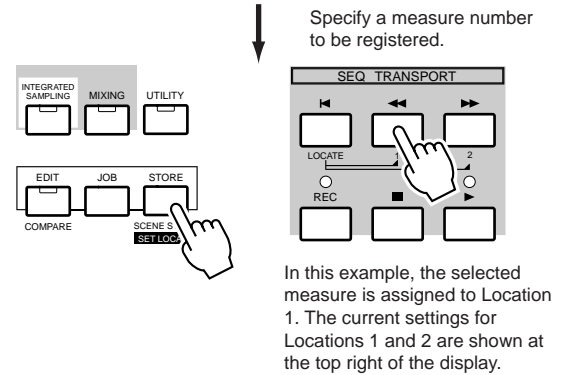
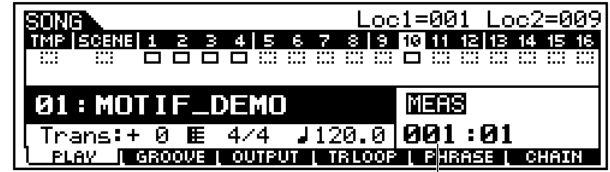
Location

The explanations here apply to step #4 of the Basic Procedure on page 179.

The Song Play mode has a convenient Location function that lets you jump to user-specified parts of a song. This lets you assign a specific measure number in the selected song, and instantly jump to the assigned measure — either during playback or when the song is stopped. Two Locations can be assigned.

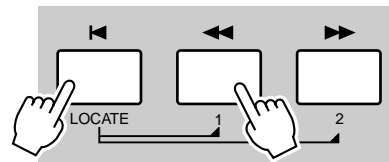
■ **Assigning Locations**

Select the desired measure in the recorded song for the Location. (Highlight “MEAS” and use the [INC/YES] and [DEC/NO] buttons or data dial.) Then, to assign the measure to Location 1, simultaneously hold down the [SET LOCATE] button and press the [◀◀] button. To assign Location 2, use the [▶▶] button.



■ **Jumping to an assigned Location**

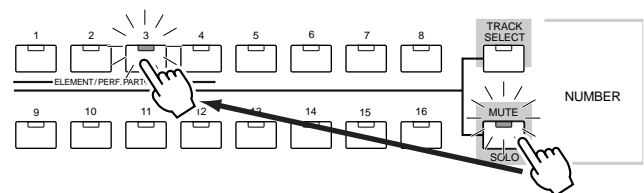
You can instantly jump to the assigned Location 1 or 2 by simultaneously holding down the [LOCATE] button and pressing the [◀◀] button (for Location 1) or the [▶▶] button (for Location 2).



■ **Song track on/off — Solo and Mute**

The explanations here apply to step #4 of the Basic Procedure on page 179.

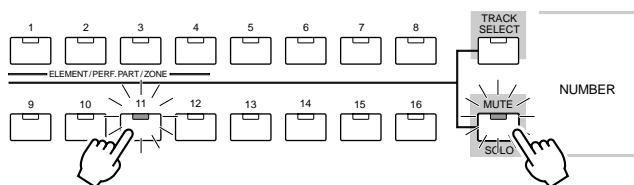
● **To mute a track**



1 Press the [MUTE] button so that its lamp lights.

2 Press any of the NUMBER [1] - [16] buttons to select the track number to be muted.

● To solo a track



Simultaneously hold down the [MUTE] button and press one of the NUMBER buttons [1] to [16] to solo the corresponding track.

Once you've selected a track for soloing, the [MUTE] button's lamp flashes, indicating the Solo function is active. While Solo is active, you can change the soloed track simply by pressing the corresponding NUMBER button [1] to [16].

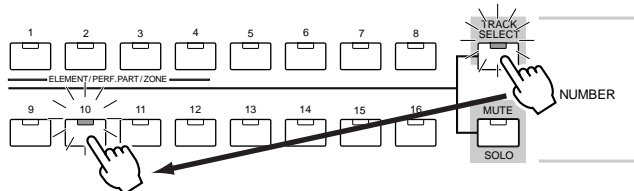
To exit from the Solo function, press the [MUTE] button again.

Song track selection

The explanations here apply to step #5 of the Basic Procedure on page 179.

In order to edit the Song data, you'll need to select a track for editing.

Press the [TRACK SELECT] button so that its indicator lights and press any of the NUMBER [1] - [16] buttons to select a track to be edited.



NOTE Selecting another song resets the selected track to 1.

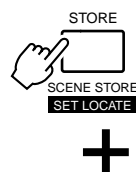
Song Scene

The explanations here apply to step #6 of the Basic Procedure on page 179.

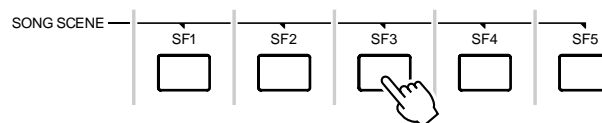
Song Scene is a powerful function that allows you to save five different "snapshots" of important song-related parameters — including transpose, tempo, track mute status, and the basic sound/mixing controls (all parameter settings controllable from the Knobs and CS sliders).

NOTE The Song Scene settings can be set independently for each song.

● Storing the Song Scene

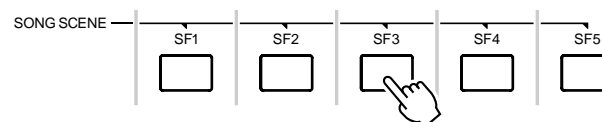


After making the desired settings for the Song Scene, simultaneously hold down the [STORE] button and press one of the SONG SCENE buttons [SF1] to [SF5].



● Recalling the Song Scene

Simply press any of the [SF1] - [SF5] buttons to recall the setting.



One of the convenient advantages of Song Scene is that it lets you instantly and automatically execute parameter settings that normally require many button presses or controller operations. Use it during song recording or playback to make instantaneous setting changes.

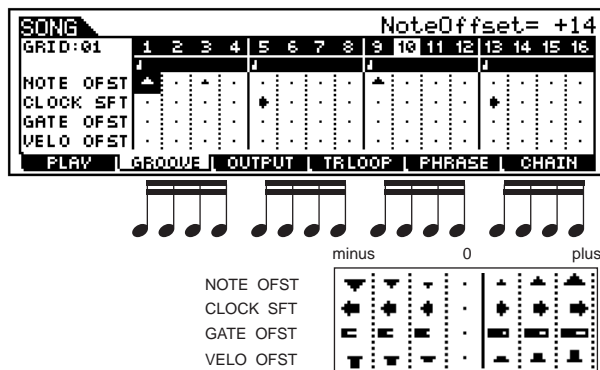
Song editing in the Song Play mode

The explanations here apply to step #5 of the Basic Procedure on page 179.

The Song Play mode lets you perform a variety of general editing operations on the selected song. For more detailed and comprehensive editing operations, use the Song Edit and Song Mixing modes.

● [F2] Song Play Groove

The Grid Groove function makes it possible to adjust the pitch, timing, length, and velocity of notes in a specified track via a 1-measure 16th-note grid to create "grooves" that would not be possible with precise sequencer-like programming. The Grid Groove function affects song playback without actually changing the sequence data.



• **NOTE OFFSET**

Raises or lowers the pitch of the note(s) on the selected grid in semitones.

□ Settings 99 ~ +99

• **CLOCK SHIFT**

Shifts the timing of the note(s) on the selected grid forward or back ward in clock increments.

□ Settings 120 ~ +120

• **GATE OFFSET (Gate time Offset)**

Lengthens or shortens the note(s) on the selected grid in clock increments.

□ Settings 120 ~ +120

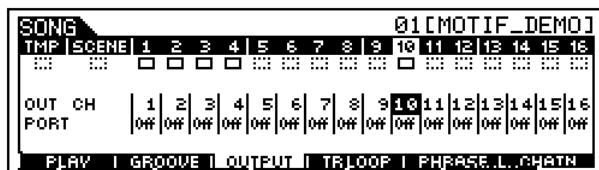
• **VELO OFFSET (Velocity Offset)**

Increases or decreases the velocity of the note(s) on the selected grid.

□ Settings 127 ~ +127

• **[F3] Song Play Output Channel**

From this display you can set the MIDI output channel for each of the sixteen tracks, and determine which MIDI port the track data is sent to.



• **OUT CH (Output Channel)**

Sets up channel transmission to the MIDI OUT terminal. Tracks set to “Off” will not sound.

□ Settings off, 01 ~ 16

[NOTE] In the Song/Pattern mode, the MIDI data created by playing the keyboard/knobs/wheels is sent to the tone generator block or the external MIDI devices via the MIDI output channel of the currently selected track.

• **Port**

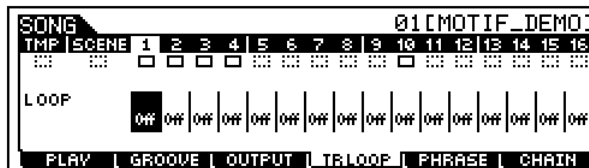
Determines the MIDI transmission port for the corresponding track. This is useful for sending data to external tone generators over multiple MIDI ports in an extended MIDI setup. Keep in mind that this parameter can only be set for tracks having assignments to Plug-in parts 1 - 3 (for installed single-part boards) or Plug-in parts 17 -32 (for installed multi-part boards). Tracks using the internal tone generator parts of the MOTIF are automatically fixed at port 1.

□ Settings off, 01 ~ 03

[NOTE] Port data can be output only through the USB terminal. No port data is transmitted through the MIDI OUT terminal, even if the corresponding track is set to a specific port number.

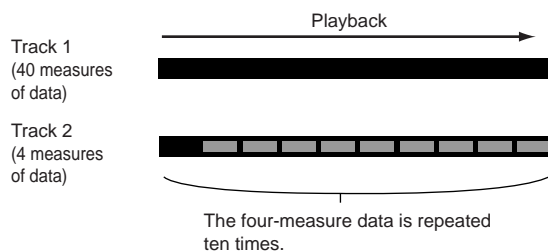
• **[F4] Song Play Track Loop**

From this display you can determine whether the data in the selected track loops or not in playback. Using Loop can be an effective way to repeat short patterns and phrases throughout the song.



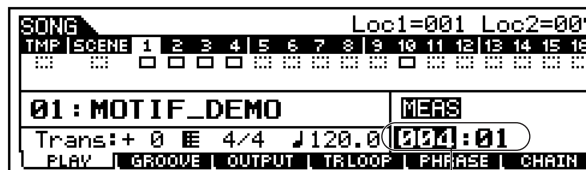
□ Settings on, off

In the example below, a 40-measure song has been recorded and Track 1 is set to play back normally over the 40 measures. Track 2 has been set to loop, and will repeat until the [■] button is pressed.



When set to on, you can specify the range to be looped. (Only the end point can be set, the start point of looped playback is fixed to the beginning of the song.) Please note that the part that is not looped is deleted after setting to on.

1 Press [F1] to call up the Song Play display. Change the current measure that is to be a last measure of looped playback.



In this example, set to "004."

2 Press [F4] to call up the Track Loop display and move the cursor to the desired track.

- 3 Set to on by using the [INC/YES] and [DEC/NO] buttons or the data dial. (The display prompts you for confirmation.)
- 4 Press the [INC/YES] button. The Loop is set to on and the part that is not looped is deleted

● **[F5] Song Play Copy Phrase**

You can copy s Pattern track data (Phrase) to a Song track. You can also copy the preset phrase that does not assigned to the Pattern track by the Patch function (page 219).

If sample data is included in the original Phrase and you want to copy all of the data, make sure to checkmark this box.

● **[F6] Song Play Chain Play/Edit**

This function allows songs to be “chained” together for automatic sequential playback. This is particularly convenient in live performance situations, letting you have your song backing play automatically in “jukebox” fashion while you perform over it. Highlight the desired point in the chain, then use the [INC/YES] and [DEC/NO] buttons or data dial to set the desired song number or parameter below. The MOTIF allows you to create one Song Chain setting.

Parameters other than the song number are explained here.

- **skip**
Skips past (ignores) the selected chain number and continues playback from the next chain number.
- **stop**
Stops the song chain playback at that chain number. You can restart the song chain playback from the next chain number by pressing the [▶] button.
- **end**
Indicates the end mark of the song chain data.

Song Record mode

Quick Start Guide (page 110)

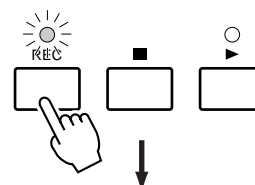
In this mode, you can use the sequencer to record your keyboard performance in real time to each track of a User Song.

NOTE For details about recording methods, see page 53.

◆ Basic Procedure

Basic Structure (page 53)

- 1 In the Song Play mode, select a User Song to be recorded.
- 2 If necessary, set a Song Scene (page 115).
- 3 Press the [REC] button to enter the Song Record mode. (The indicator lights.) The Song Record Setup display shown below appears.



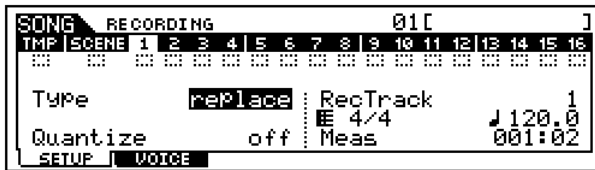
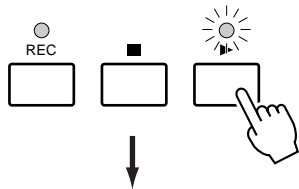
- 4 Set basic parameters for recording (e.g., recording type, track, tempo, and so on).

NOTE Please note that the time signature can be set in the Song Play display. See page 179.

- 5 Change the display by pressing the [F2] - [F3] buttons and set various parameters for recording.

NOTE Your performance on the keyboard and the controllers (Knobs, Pitch Bend wheel, Modulation wheel, and so on) is recorded to tracks 1 - 16. The Tempo (“TMP”) track is for recording tempo changes, while the Scene track is for changes to the Song Scene numbers and Track Mute settings.

- 6 Press the [▶] button to start recording.
 - When any of the Realtime recording methods (any setting other than “step”) is selected in step #4, your keyboard playing and controller moves are automatically recorded.
 - When “step” is selected in step #4, compose your performance by entering a note one by one.



NOTE MIDI events the external MIDI devices connected to the MOTIF can be recorded to tracks 1 ~ 16.

7 After completing your performance (in Realtime recording) or completing Step recording, press the [■] button to stop recording.

8 Record additional tracks as required. Repeat steps #3 through #7 as desired.

9 Press the [▶] button to hear your newly recorded performance.

10 Save the recorded data to the Memory Card or the SCSI device connected to the MOTIF.

CAUTION

The recorded (edited) song data resides temporarily in DRAM (page 64). Because data contained in DRAM is lost when the power is turned off, you should always store any data residing in DRAM to a memory card or an external SCSI device before turning off the power.

- For detailed instructions on steps #4 - #7, see the following explanations.
- For details on step #10 refer to “File mode” on page 266.

NOTE The following explanations apply to MIDI data recording (creating MIDI tracks). For instructions on recording audio data (creating sample tracks), see “Sampling mode” on page 233.

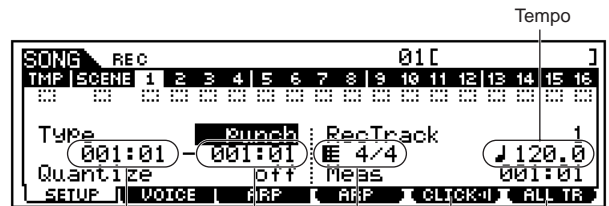
Setting up before recording

The explanations here apply to steps #4 - #5 of the Basic Procedure on page 183.

● **[F1] Song Record Setup**

Basic Structure (page 51)

When recording type is set to something other than “step” :



Punch-in measure : beat

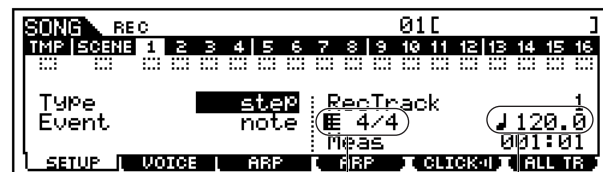
Time signature (set in the Song Play display)

This lets you turn the click sound (metronome) on/off for recording. (Press the [F5] button.)

This lets you switch between Single Track recording and All Track recording. (Press the [F6] button.)

NOTE “Punch-in measure : beat” and “Punch-out measure : beat” are available when the Recording Type is set to “Punch.”

When recording type is set to “step” :



Time signature (set in the Song Play display)

Tempo

• **Type (Recording type)**

Determines the recording method.

□ Settings:

RecTrack is set to 1 ~ 16:
replace, overdub, punch, step

RecTrack is set to “tempo” :
replace, punch, step

RecTrack is set to “scene” :
replace, punch

RecTrack is set to “multi” :
replace, overdub, punch

NOTE When “punch” is selected, “Punch-in measure : beat” and “Punch-out measure : beat” appear in the display and should be set.

NOTE When “step” is selected, you should specify the event type to be entered.

• **Quantize**

This parameter is available when the Recording Type is set to something other than “step.” Record quantize aligns the timing of notes which are not exactly on the beat on-the-fly as you record.

- Settings: off, 60 (32nd note), 80 (16th note triplet), 120 (16th note), 160 (8th note triplet), 240 (8th note), 320 (1/4 note triplet), 480 (1/4 note)

• **Event**

This parameter is available when the Recording Type is set to “step.” This lets you specify the event type to be entered.

- Settings: note, p.bend (pitch bend), CC#000 ~ #119 (Control Change)

• **RecTrack**

Determines the track to be recorded. Pressing the [F6] button lets you switch between Single Track recording and All Track recording.

- Settings: tempo, scene, 1 ~ 16, multi

• **Tempo**

Determines the Song tempo.

- Settings: 001.0 ~ 300.0

Song Recording

The explanations here apply to steps #6 - #7 of the Basic Procedure on page 183, page 184.

Realtime Recording

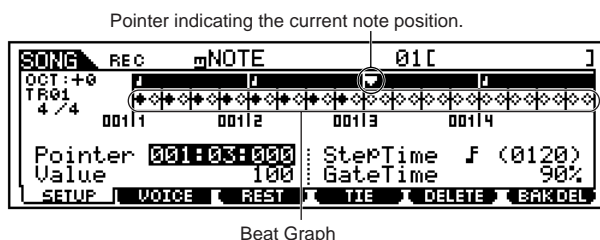
See “Quick Start Guide” (page 110)

Step Recording

If you press the [▶] button in step #6 of the Basic Procedure on page 183, the following display appears and you can input the specified events one by one.

● **Entering the Note Event**

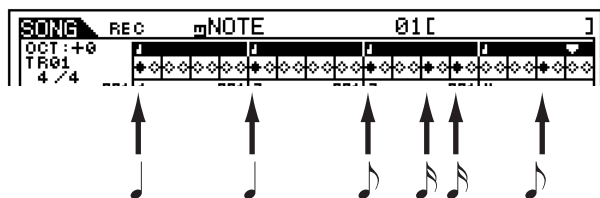
When the event to be entered is set to “note”, you can input the note events one by one.



• **Beat Graph**

This is the display in which notes are “placed” during step recording. When the meter is 4/4, the display is divided into four beats (one measure). Each diamond-shaped marker in the display represents one 32nd beat (each 1/4 note division is divided into eight 32nd beats).

For example, if the following rhythmic pattern “♪♪♪♪♪” is entered in 4/4 time, a display like the one shown below will appear.



• **Pointer**

Determines the data-entry position. The triangular pointer above the beat graph indicates the data-entry position.

To move the pointer right or left, use the [INC/YES] and [DEC/NO] buttons or the data dial.

• **Value**

When the event to be entered is set to “note”, this value specifies the velocity with which the note will be entered.

- Settings: 001 ~ 127
The set value (1 ~ 127) corresponds to the MIDI velocity value entered.

RND1 ~ RND4

When one of the random settings is selected, a random velocity value will be entered.

• **StepTime**

The “size” of the current recording step time for the next note to be entered. This determines to what position the pointer will advance after a note has been entered.

- Settings: 0001~0059
32nd note ♪
16th note triplet ♪♯♯
16th note ♪
8th note triplet ♪♯♯
8th note ♪
1/4 note triplet ♪♯♯
1/4 note ♪
half note ♪
whole note ♪

• **GateTime**

Sets the gate time to produce slurs, staccato notes, etc. “Gate time” refers to the actual length of time the note sounds. For the same 1/4 note, for example, a long gate time will produce a slur while a short gate time will produce a staccato effect.

Gate time is indicated as a percent value of the step time. A setting of 50 % produces a staccato sound, values between about 80 % and 90 % produce normal note length, and a value of 99 % will produce a slur.

- Settings: 001 % ~ 200 %

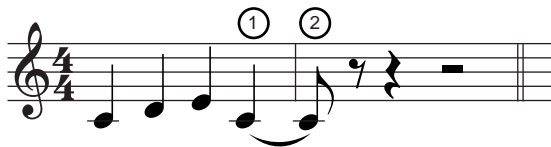
● **[F3] REST**

Press [F3] to enter a rest as long as the specified step time. The point will move ahead to the next data-entry position. Rests do not appear on the display.

NOTE There is no actual data representing rests in the MIDI sequencer. When a “rest” is entered the pointer simply moves ahead to the next data-entry position, effectively leaving a rest.

● **[F4] TIE**

When the [F4] button is pressed to enter a tie, the preceding note is lengthened to the full step time. For example, in the following phrase, note ① is entered with 1/4 note step time. If the step time is then changed to an 8th note and [F4] is pressed, note ② is entered.



Dotted notes can also be entered using the TIE function. To produce a dotted 1/4 note, for example, set the step time to an 8th note, enter a note and then press [F4] twice.



● [F5] DELETE

Press this to actually delete the note events at the current cursor position.

● [F6] BCK DEL

Moves the pointer backward by one step and deletes all notes at that location.

NOTE Mistakenly entered notes can be erased by pressing [F6] immediately after they are entered (before changing the step time value).

● Entering other events

When entering non-note events (such as control change data), the display is basically the same as that for note data.



The TIE function is not available for non-note events.

The following descriptions apply to non-note events.

● Value

When the event to be entered is something other than “note,” this determines the value of the specified non-note event.

□ Settings:

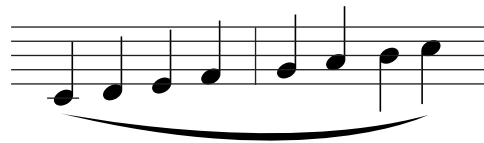
When event is set to “p.bend” :
- 8192 ~ + 8191

When event is set to “CC (Control Change) #001 ~ 119” :
000 ~ 127

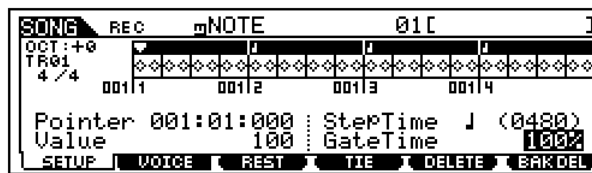
When event is set to “tempo” (RecTrack is set to “tempo”) :
001 ~ 300

◆ Examples of Step Recording

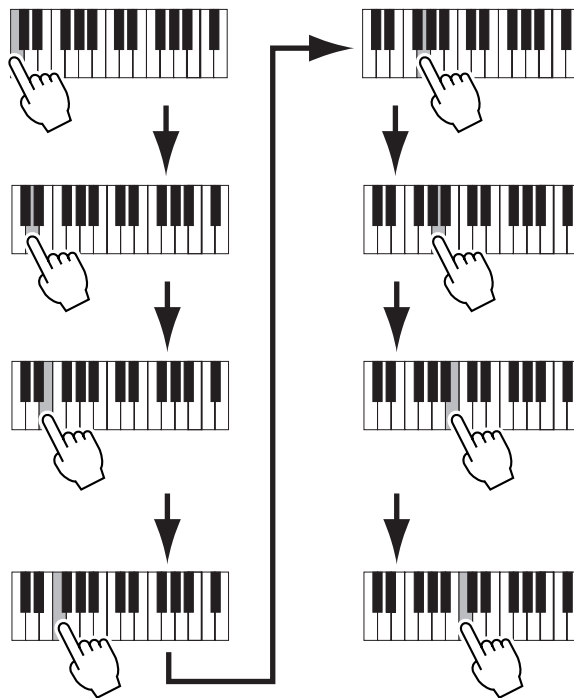
The explanations here apply to steps #6 - #7 of the Basic Procedure on page 183, page 184. This section explains how to step-record notes, using three specific examples.



1 Set the parameters as illustrated below. Here, we’ll set the Step Time to ↓(480) so that quarter notes will be entered, and set the GateTime to 100% to have the notes play in legato.

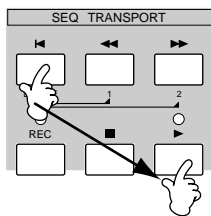


2 Play the keys C, D, E, F, G, A, B and C in order.



Each time you press a key and release it, the pointer moves forward by one step and the played note is recorded.

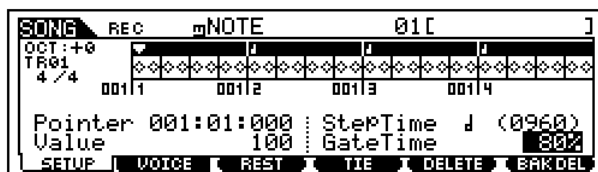
3 Move the pointer to the top (beginning) of the song and press the [▶] button to hear the note data you just recorded in steps #1 and 2.



●Example 2 (Using the TIE function)



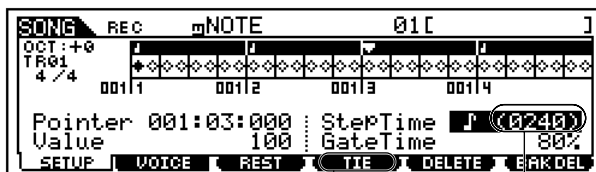
1 Set the parameters as illustrated below.
 Since the first note is a half note, set the StepTime to \downarrow (960), and set the GateTime to 80%, since you don't want the notes to play in legato.



2 Enter the first note F.



(1) Press and release F.



(2) Change this value to 240, since the next note is an 8th note.

(3) Press the [F4] button to tie the two F notes (half note and 8th note).



3 Enter the next 8th notes.

Keep the display settings unchanged for the remaining notes in the measure, and press/release each key one by one as shown below.

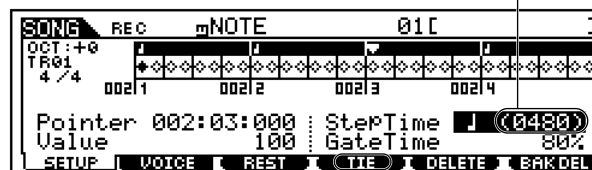


4 Follow the instructions below to enter the next dotted half note.



(2) Press and release A

(1) Change this to 480.



(3) Press [F4] twice to expand the quarter note to a dotted half note.



5 Enter the last quarter note by pressing and releasing F.



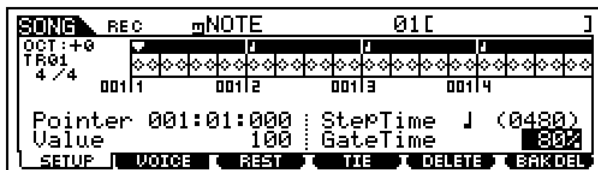
- 6 Move the pointer to the top (beginning) of the song and press the [▶] button to hear the note data you just recorded in steps #1 - 5.

● **Example 3 (Using the REST function)**

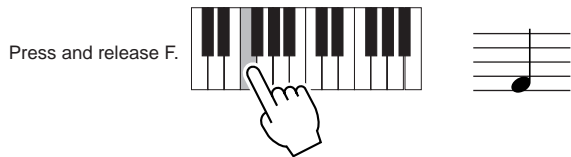


- 1 Set the parameters as illustrated below.

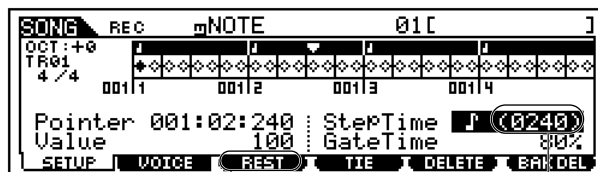
Set the StepTime to ↓(480) and the Gate Time to 80%.



- 2 Enter the first note F.



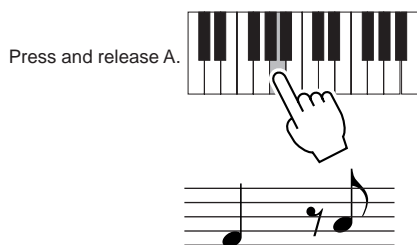
- 3 Enter the next 8th rest by following the instructions below.



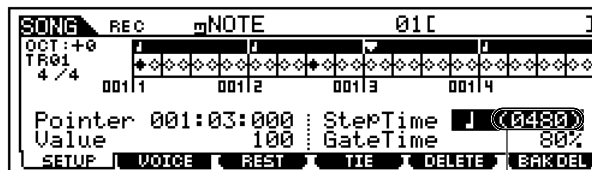
- (2) Enter an 8th note rest by pressing the [F3] button.
- (1) Change this value to 240, since the rest value is the same as an 8th note.



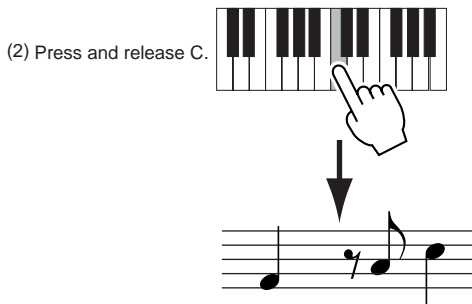
- 4 Enter the next 8th note A.



- 5 Enter the next 4th note C by following the instructions below.



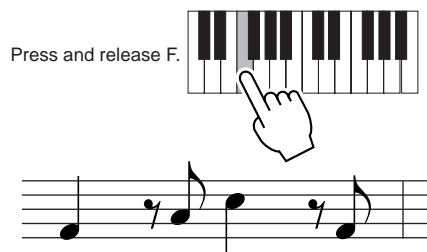
- (1) Change this value to 480, since the next note is a quarter note.



- 6 Enter the next 8th rest via the same procedure as in step #3



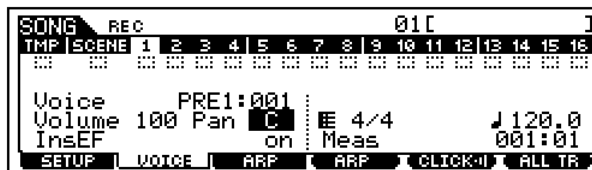
- 7 Enter the last 8th note F.



- 8 Move the pointer to the top (beginning) of the song and press the [▶] button to hear the note data you just recorded in steps #1 - 7.

● **[F2] Song Record Voice**

From this display you can set voice-related parameters for the selected track. The settings made here affect the tone generator parts whose MIDI receive channels match the MIDI transmit channel of the song track.



- **Voice**
Determines the voice for the selected track.
You can use the BANK, GROUP, NUMBER button or the Category Search function to select a voice (page 124). You can also select a Sample voice (page 58).
- **Voume**
Determines sound volume for the selected track.
 Settings 0 ~ 127
- **Pan**
Determines the stereo pan position the selected track.
 Settings L63 (Left) ~ C (Center) ~ R63 (Right)
- **InsEF (Insertion Effect Part Switch)**
Determines whether the Insertion effect (page 39) for the selected track is on or off.
 Settings on, off

● **[F3] Song Record Arpeggio**

From this display you can set various Arpeggio-related parameters for the selected track.



Determines whether Arpeggio playback data is recorded to the track or not. (Press the [F4] button.)

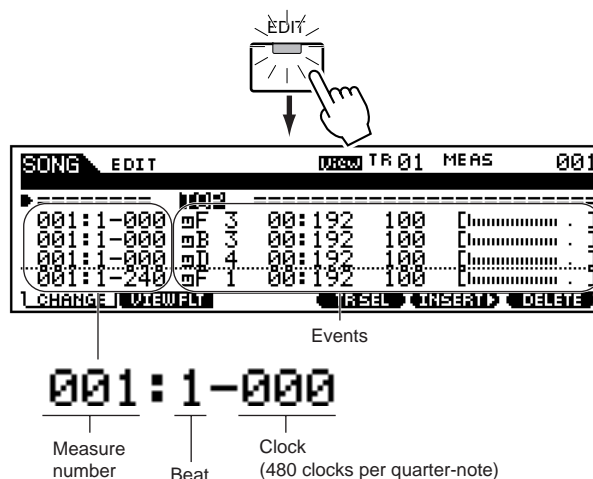
- **Bank**
Determines the specific Arpeggio Bank. For details, see page 55.
 Settings pre1, pre2, user
- **Type**
Determines the Arpeggio type. The two-letter prefix before the name indicates the general Arpeggio category. (page 55)
- **Velocity Limit**
Determines the lowest and highest velocity in the Arpeggio's velocity range. While recording, this lets you control when the Arpeggio sounds by your playing strength.
 Settings 1 ~ 127
- **Switch**
Determines whether Arpeggio playback is on or off. You can also turn this on or off from the front panel with the [ARPEGGIO ON/OFF] button.
 Settings off, on
- **Hold**
Determines whether the Arpeggio playback is "held" or not. When this is set to "on," the Arpeggio cycles automatically, even if notes are released, and it continues to cycle until the next note data is received.
 Settings sync-off, off, on
- **PartSwitch**
Determines whether Arpeggio playback is on or off for the tone generator part (page 55) that corresponds to the recorded track.
 Settings off, on

Song Edit mode

This mode gives you comprehensive, detailed controls for editing the MIDI events of individual song tracks. MIDI events are messages (such as note on/off, note number, program change number, etc.) that make up the data of a recorded song.

◆ Basic Procedure

- 1 In the Song Play mode, select a User Song to be edited. **Basic Operation (page 70)**
- 2 Press the [EDIT] button to enter the Song Edit mode. (The indicator lights.) The Song event List display shown below appears.



- 3 Revise, insert or delete the MIDI events as needed. If you find the display too cluttered, you can filter out certain event types with the View Filter. Simply press the [F2] button and select the event types you want to be displayed.
- 4 After completing editing, press the [SONG] button to return back to the Song Play mode.
- 5 Press the [▶] button to hear your edited data.
- 6 Edit other tracks as required. Repeat steps #2 through #5 as desired.
- 7 After editing, save your song data to the Memory Card or the SCSI device connected to the MOTIF in the File mode.
 - For detailed instructions on step #3, see the following explanations.
 - For details on step #7, refer to "File mode" on page 266.

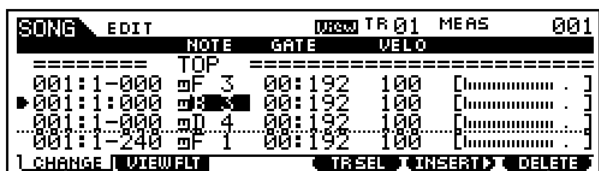
Event Editing/Inserting/Deleting

The explanations here apply to step #3 of the Basic Procedure on page 189.

■ Editing/Deleting Existing Events

To edit data in the Event List, use the up/down cursor buttons to highlight the specific event you want to edit, and use the left/right cursor buttons to highlight the data type or parameter to be edited. Then, change the value as needed by using the [INC/YES] and [DEC/NO] buttons or the data dial.

The edited event will flash on the display. Press the [ENTER] button to actually enter the edited data (the event will stop flashing). To abort an edit simply highlight to a new event location without pressing the [ENTER] button. Press the [F6] button to delete the event at the current location.

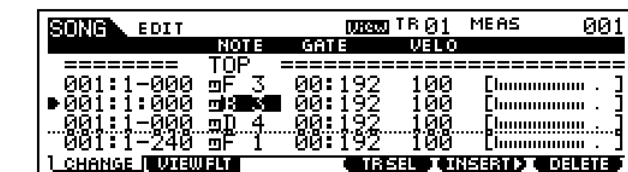


You can also move the selected event to another location by specifying different values for measure, beat, and clock.

Press the [F6] button to delete the event at the current location.

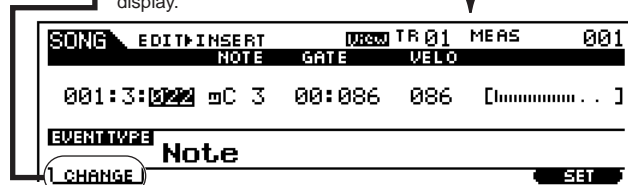
■ Inserting New Events

To insert an event, use the up/down cursor buttons to highlight an event at the desired point in the track (measure, beat, clock) — this is the location to which the new event will be inserted. Then, follow the steps below.

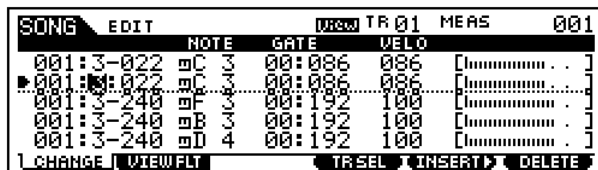
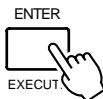


Press the [F1] button to abort and return to the main Event List display.

Press the [F5] button.



Press the [ENTER] button to actually insert the event.



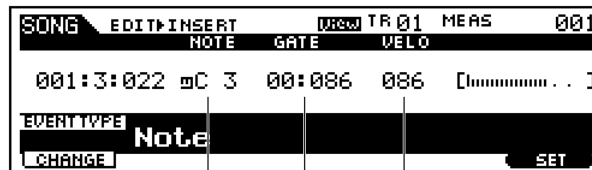
MIDI events that can be inserted (edited)

The following explanations apply to the MIDI events that can be inserted (edited) in step #3 of the Basic Procedure on page 189.

The following displays are called up by pressing the [F5] button in step #3 of the Basic Procedure on page 189.

■ Note

This is the most common and prevalent type of data — the individual notes of a song.



Note name Gate time Velocity

• Note name

Determines the note name or the specific keyboard pitch of the note.

- Settings C -2 ~ G8

• Gate time (beat : clock)

Determines the length of time that a note actually sounds in beats and clocks.

- Settings 00:001 ~ 999:479

[NOTE] On the MOTIF, one clock is 1/480th of a quarter note.

• Velocity

Determines how strongly the selected note sounds.

- Settings 1 ~ 127

■ Pitch Bend

These are the events that define continuous changes in pitch and these events are generated by pitch bend wheel operation.



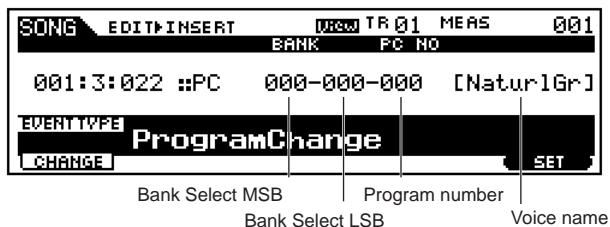
Data

• Data

- Settings -8192 ~ +8191

■ Program Change

These events determine the selected voice for the note data. Keep in mind that Program Change events can be inserted at any point in a song track, letting you change voices in the middle of a song.



• Bank Select MSB, LSB

Determines the voice bank.

- Settings *** ~ 127

NOTE Bank select MSB and LSB are actually part of the Control Change set of messages (below). However, since they apply specifically to voice selection, they grouped and described here.

• Program number

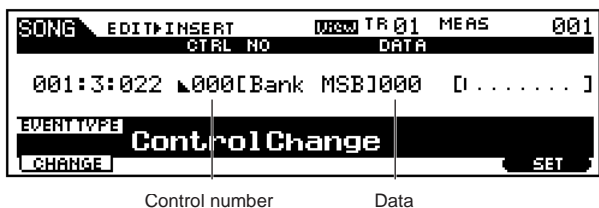
Determines the specific voice (from the bank selected by MSB and LSB above).

- Settings 001 ~ 128

NOTE For a complete list of the available voice banks and numbers, refer to the Voice List in the separate Data List booklet.

■ Control Change

These events control the sound and certain response characteristics of the voice, and are usually generated/recorded by moving a controller (such as a modulation wheel, knob, slider or foot controller).



• Control number

Determines the Control Change number. (See chart below.)

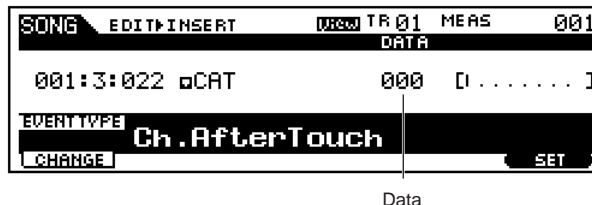
- Settings 000 ~ 127

Control Number	Function
001	Modulation Wheel
005	Portamento Time
007	Volume
010	Pan (Stereo position)
011	Expression
064	Sustain (Hold 1)
065	Portamento on/off
066	Sostenuto pedal on/off
067	Soft Pedal on/off
071	Harmonic Content (controls Filter Resonance)
074	Brightness (controls Filter Cutoff Frequency)
084	Portamento Source Note Number
120	All Sound Off

NOTE For details on using Control Change numbers (including those above), refer to the separate Data List booklet.

■ Channel Aftertouch (CAT)

This event is generated when pressure is applied to a key after the note is played.



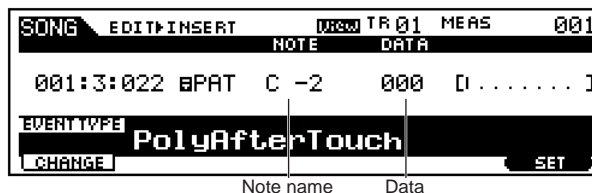
• Data

This represents the amount of pressure applied to the key.

- Settings 000 ~ 127

■ Polyphonic Aftertouch (PAT)

This event is generated when pressure is applied to a key after the note is played. Unlike Channel Aftertouch above, this is recorded and applied independently for each key pressed.



• Note name

Determines the key to which aftertouch is applied.

- Settings C -2 ~ G8

• Data

This represents the amount of pressure applied to the key.

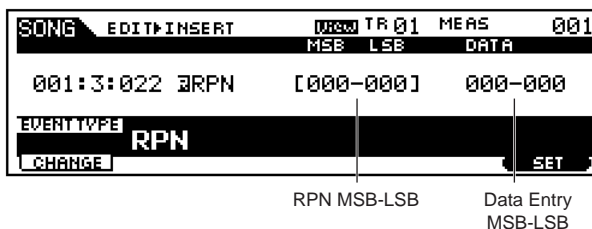
- Settings 000 ~ 127

■ Registered Parameter Number (RPN)

This event changes parameter values for each tone generator part.

This event is used to set part settings such as Pitch Bend Sensitivity or Tuning.

For a complete list of the available RPN numbers and their corresponding controls, refer to the MIDI Data Format in the separate Data List booklet.



• **RPN MSB-LSB**

☐ Settings 000 ~ 127

• **Data Entry MSB-LSB**

☐ Settings 000 ~ 127

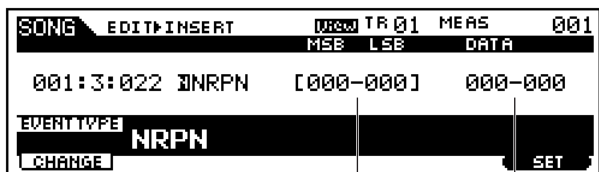
NOTE Normally three types of control change data are sent: RPN MSB (101), RPN LSB (100), and Data Entry MSB (6). In the MOTIF, Data Entry LSB (38) is added to this and the resulting group of control change events is handled as one in this display. For a complete list of the available RPN and NRPN numbers and their corresponding controls, refer to the MIDI Data Format in the separate Data List booklet.

■ **Non Registered Parameter Number (NRPN)**

This event changes parameter values for each tone generator part.

This event is used to edit sounds via MIDI, allowing you to edit filter or EG settings, or adjust the pitch or level for each instrument of a drum voice.

For a complete list of the available NRPN numbers and their corresponding controls, refer to the MIDI Data Format in the separate Data List booklet.



RPN MSB-LSB Data Entry MSB-LSB

• **NRPN MSB-LSB**

☐ Settings 000 ~ 127

• **Data Entry MSB-LSB**

☐ Settings 000 ~ 127

NOTE Normally three types of control change data are sent: NRPN MSB (99), NRPN LSB (98), and Data Entry MSB (6). In the MOTIF, this group of control change events is handled as one in this display. For a complete list of the available RPN and NRPN numbers and their corresponding controls, refer to the MIDI Data Format in the separate Data List booklet.

■ **System Exclusive (Exc)**

A type of MIDI message used to exchange data unique to a specific model or type of device.

Unlike with other MIDI events, these events differ depending on the manufacturer/device, and are incompatible among different devices.



Data

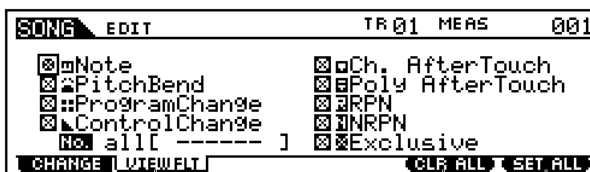
• **Data**

☐ Settings 00 ~ 7F, F7 (Data must be entered in hexadecimal format.)

■ **Event View Filter**

The explanations here apply to step #3 of the Basic Procedure on page 189.

The MOTIF's "Event View Filter" lets you select the event types that appear on the Event List display. For example, if you wish to edit only note events, place a checkmark in the box next to "Note" as shown below so that only the note events appear in the Event List display.



When the Control Change box is checkmarked, you can specify the desired Control Change number.

Press the [F5] button to remove all checkmarks at once.

Press the [F6] button to set checkmarks into all boxes.

Song Job mode

The Song Job mode contains a comprehensive set of editing tools and functions you can use to change the sound of the song. It also includes a variety of convenient operations, such as copying or erasing data. Most of these operations can be performed on either an entire track or a selected range of measures in the track.

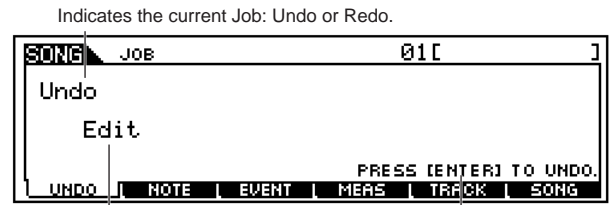
◆ Basic Procedure

- 1 In the Song Play mode, select a song you wish to execute the Job on.
- 2 Press the [JOB] button to enter Song Job Mode.
- 3 Select the desired Job menu by pressing the appropriate button, [F2] - [F6].
- 4 Use the CURSOR buttons to scroll to the desired Job.
- 5 Press the [ENTER] button to go to the selected Job display.
- 6 Set the relevant Job parameters.
- 7 Press the [ENTER] button. (The display prompts you for confirmation.)
- 8 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.
NOTE To cancel the Job, press the [DEC/NO] button.
- 9 If you wish to undo the changes made in the steps above, press the [F1] button and (to select Undo/Redo) and use the Undo function.

- 10 Press the [SONG] button to exit from Song Job mode and return to Song Play mode.
 - For detailed instructions on steps #3 - #9, see the explanations below.

[F1] Undo/Redo

The explanations here apply to step #9 of the Basic Procedure (see above). The Undo Job cancels the changes you made in your most recent patch session, recording session, editing session, or Job, restoring the data to its previous state. This allows you to recover from accidental data loss. Redo is available only after using Undo, and lets you restore the changes you made before undoing them.



Indicates the operation to be affected by Undo or Redo.

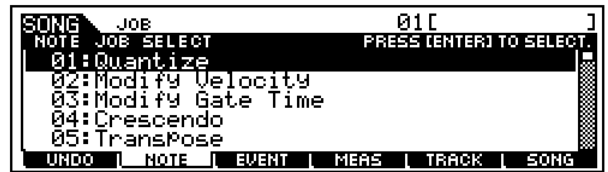
Press the [ENTER] button to execute the Undo/Redo operation.

! CAUTION

Undo/Redo does not work with sample voice operations.

[F2] Note data Job

Press the [F2] button in steps #3 of the Basic Procedure (see above), so that the Note data Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.

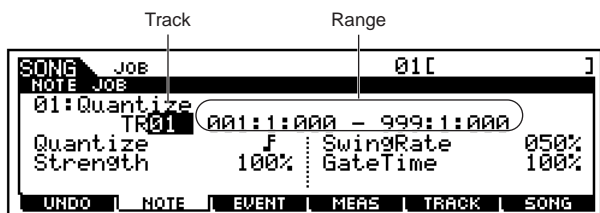


The following explanations apply to step #6 of the Basic Procedure (see above).

NOTE Before executing the Note data Job, make sure that you specify the track (01 ~ 16, all) and range (measure : beat : clock) to which the Job is applied.

● [F2]-01 Quantize

Quantization is the process of adjusting the timing of note events by moving them closer to the nearest exact beat. You can use this feature, for example, to improve the timing of a performance recorded in real time.



● Quantize Value (Resolution)

Determines to what beats the note data in the specified track will be aligned.

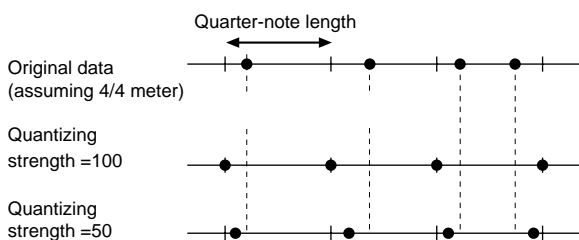
□ Settings

- 32nd note
- 16th note triplet
- 16th note
- 8th note triplet
- 8th note
- 1/4 note triplet
- 1/4 note
- 16th note + 16th note triplet
- 8th note + 8th note triplet

● Strength

The Strength value sets the “strength” by which note events are pulled toward the nearest quantize beats. A setting of 100 % produces exact timing. A setting of 0 % results in no quantization.

□ Settings 000 % ~ 100 %



● SwingRate

Delays notes on even-numbered beats (backbeats) to produce a swing feel. For example, if the meter is 4/4 and the quantize value is quarter notes, the 2nd and 4th beats of the measure will be delayed.

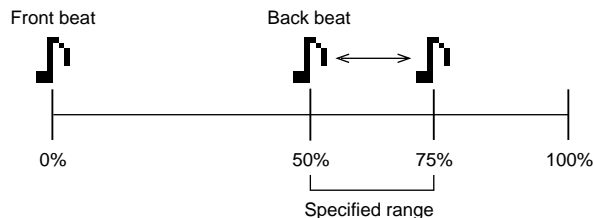
When a triplet quantize value is used, the last note of each triplet is delayed.

When the quantize value is or , even-numbered or beats will be delayed.

□ Settings See below.

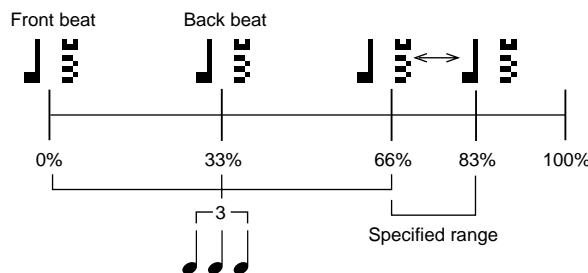
If the quantize value is :50% ~ 75%

A setting of 100 % is equivalent to twice the length of the specified quantize value. A setting of 50 % produces exact timing and therefore no swing feel. Settings above 51 % increase the amount of swing, with 75 % being equivalent to a dotted-note delay.



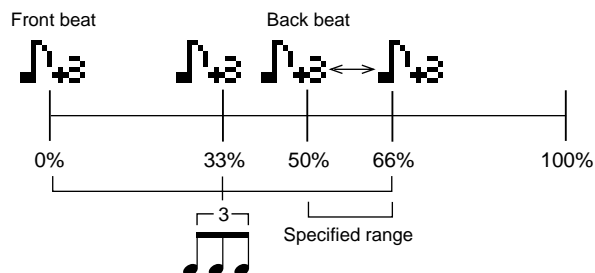
If the quantize value is :66% ~ 83%

A setting of 100 % is equivalent to three times the length of the specified quantize value. A setting of 66 % produces exact timing and therefore no swing feel. Settings above 67 % increase the amount of swing, with 83 % being equivalent to a sextuplet delay.



If the quantize value is :50% ~ 66%

A setting of 100 % is equivalent to twice the length of a d or d note. A setting of 50 % produces exact timing and therefore no swing feel. Settings above 51 % increase the amount of swing, with 66 % being equivalent to a triplet delay.



NOTE If a swing value other than 100 % results in notes being positioned after other non-swing notes, the latter notes are delayed accordingly.

● GateTime

Determines the gate time (the length of time a note sounds) of the even-numbered backbeat notes to enhance the swing feel.

When a triplet quantize value is used, the gate time of the last note of each triplet is adjusted.

When the quantize value is or , the gate time of the even-numbered or beats will be adjusted.

A setting of 100 % leaves the original gate time unchanged. If an adjusted gate time value is less than 1, the MOTIF sets the value to 1.

□ Settings 000 % ~ 200 %

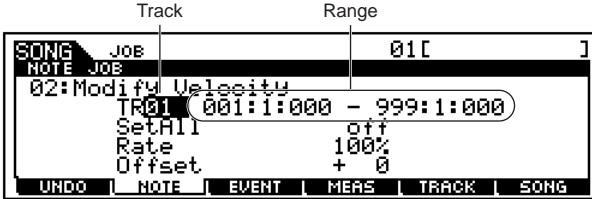
● [F2]-02 **Modify Velocity**

This job alters the velocity values of the specified range of notes, letting you selectively boost or cut the volume of those notes.

Velocity changes are calculated as follows:

Adjusted velocity
 = (original velocity x Rate) + Offset.

If the result is 0 or less, the value is set to 1. If the result is higher than 127, the value is set to 127.



● **Set All**

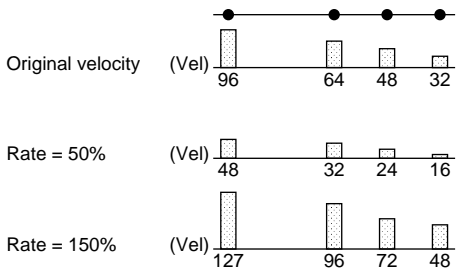
Sets the velocities of all target notes to the same fixed value (1 to 127). When set to "OFF" the Set All parameter has no effect. When set to a value other than "OFF" the Rate and Offset parameters are unavailable and appear as "****" on the display.

☐ Settings OFF(0), 001 ~ 127

● **Rate**

Determines the percentage by which the target notes will be shifted from their original velocities. Settings below 100% reduce the velocities, and settings above 100% increase the velocities proportionately. When the Set All parameter is not "OFF" this parameter appears as "****" and cannot be changed.

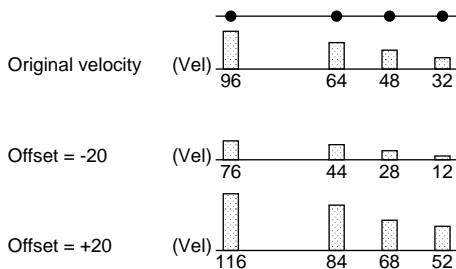
☐ Settings 000% ~ 200%, ***



● **Offset**

Adds a fixed value to the Rate-adjusted velocity values. A setting of 0 produces no change. Settings below 0 reduce the velocities, and settings above 0 increase the velocities. When the Set All parameter is not "OFF" this parameter appears as "****" and cannot be changed.

☐ Settings -127 ~ +127, ***

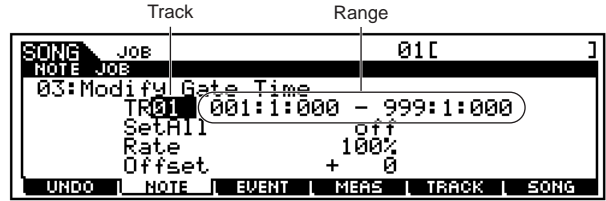


● [F2]-03 **Modify Gate Time**

This job alters the gate times of the specified range of notes. Gate time changes are calculated as follows:

Adjusted gate time
 = (original gate time x Rate) + Offset.

If the result is 0 or less, the value is set to 1.



● **SetAll**

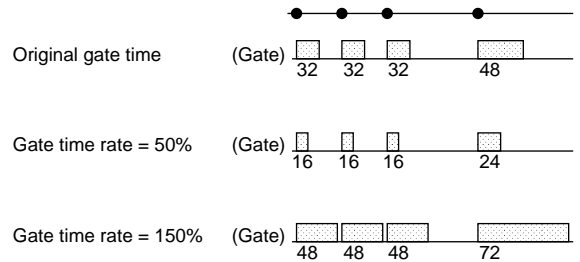
Sets the gate times of all target notes to the same fixed value. When set to "OFF" the Set All parameter has no effect. When set to a value other than "OFF" the Rate and Offset parameters are unavailable and appear as "****" on the display.

☐ Settings Off (0), 0001 ~ 9999

● **Rate**

Determines the percentage by which the gate time of the target notes will be changed. Settings below 100% shorten the notes, and settings above 100% lengthen the notes proportionately. When the Set All parameter is not "OFF" this parameter appears as "****" and cannot be changed.

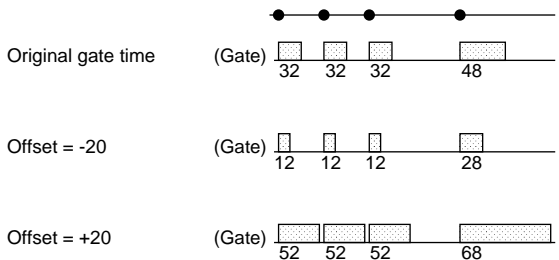
☐ Settings 000% ~ 200%, ***



● **Offset**

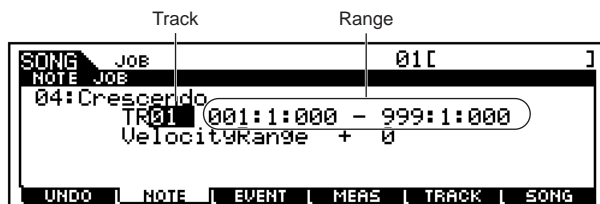
Adds a fixed value to the Rate-adjusted gate time values. A setting of 0 produces no change. Settings below 0 shorten the gate time, and settings above 0 lengthen the gate time. When the Set All parameter is not "OFF" this parameter appears as "****" and cannot be changed.

☐ Settings -9999 ~ +9999, ***



● [F2]-04 **Crescendo**

This Job lets you create a crescendo or decrescendo over the specified range of notes. (Crescendo is a gradual increase in volume, and decrescendo is a gradual decrease.)



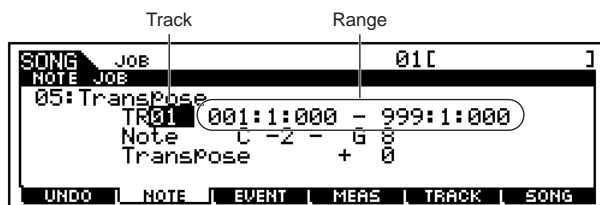
● **Velocity Range**

Determines the intensity of the crescendo or decrescendo. The velocity values of the notes in the specified range are gradually increased or decreased starting at the first note in the range. The velocity of the last note in the range becomes the original velocity of the note plus the Velocity Range value. If the resultant velocity is outside the 1 ~ 127 range it is set to 1 or 127 accordingly. Settings greater than 0 produce a crescendo, and settings less than 0 produce a decrescendo. A setting of 0 produces no effect.

□ Settings -127 ~ +127

● [F2]-05 **Transpose**

Transpose lets you change the key or pitch of the notes in the specified range.



● **Note**

Determines the range of note pitches over which the job is applied. You can set this parameter by pressing the desired key while holding the [INFORMATION] button.

□ Settings C-2 ~ G8

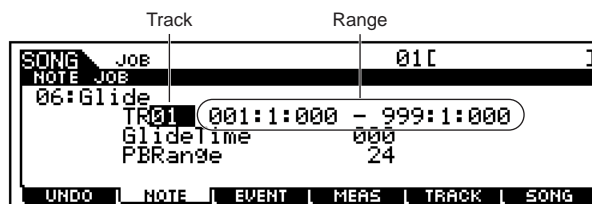
● **Transpose**

Transposes notes in the specified range (in semitones). A setting of +12 transposes up one octave, while a setting of -12 transposes down an octave. A setting of 0 produces no change.

□ Settings -127 ~ +127

● [F2]-06 **Glide**

The Glide Job replaces all notes following the first note in the specified range with pitch bend data, producing smooth glides from note to note. This is ideal for producing guitar-like slide or note-bending effects.



● **GlideTime**

Determines the length of the glide. Higher values produce a longer glide between notes.

□ Settings 000 ~ 100

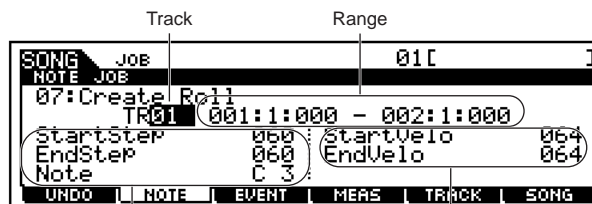
● **PB Range (Pitch Bend Range)**

Determines the maximum pitch bend range to be applied by the glide job (in semitones).

□ Settings 01 ~ 24

● [F2]-07 **Create Roll**

This Job creates a series of repeated notes (like a drum roll) in the specified range with the specified continuous changes in clock step and velocity. This is ideal for creating fast staccato rolls and special stuttering effects.



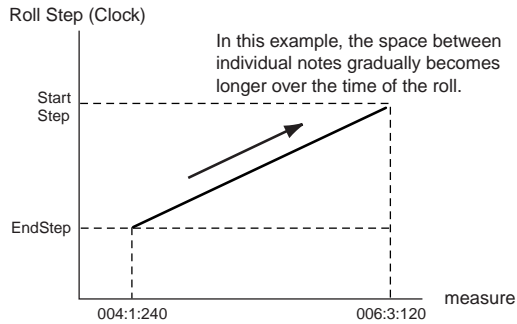
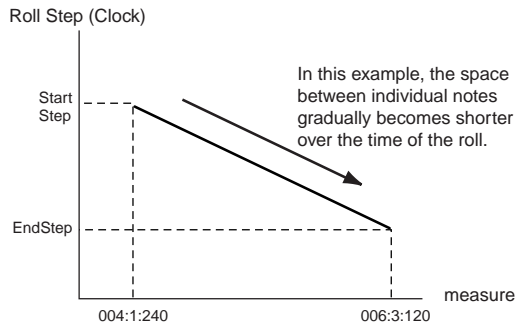
Roll Step

Roll Velocity

● **Roll Step**

Determines the size of the step (i.e. the number of clocks) between each note in the roll. Both the starting and ending clock values can be specified, making it easy to create rolls in which the step size varies from note to note.

□ Settings Start Step 001 ~ 999
End Step 001 ~ 999

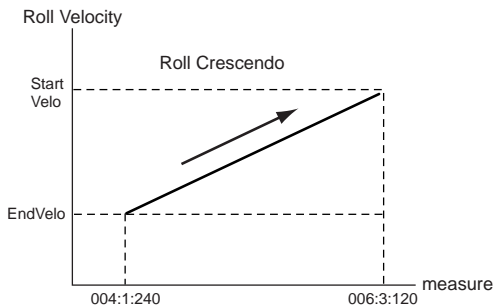
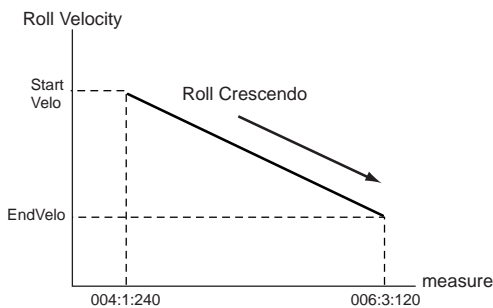


• **Roll Velocity**

Determines the velocity of the notes in the roll. Both the starting and ending velocity values can be specified, making it easy to create rolls in which the velocity increases or decreases.

This lets you create rolls that gradually increase or decrease in volume (crescendo/decrescendo) — a technique often used in dance music.

- Settings Start Velo 001 ~ 127
End Velo 001 ~ 127



• **Note**

Determines the specific note (or instrument in Drum voices) for the roll effect.

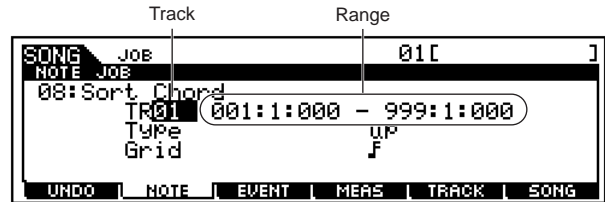
- Settings C-2 ~ G8

NOTE You can also set the Note directly from the Keyboard, by holding down the [INFORMATION] button and pressing the desired key. See “Basic Operation” on page 75.

● **[F2]-08 Sort Chord**

This job sorts chord events (simultaneous note events) by order of pitch. The sort affects the order of the notes in the Event List display (page 190), but does not change the timing of the notes.

When used to pre-process chords before using the Chord Separate job (described later), Chord Sort can be used to simulate the “stroke” or strumming sound of guitars and similar instruments.



• **Type**

Determines how the chord note data is sorted.

- Settings up, down, up&down, down&up

up

The notes are sorted in ascending order.

down

The notes are sorted in descending order.

up&down

Sorts chord notes on downbeats in ascending order and chord notes on up beats in descending order, based on the Grid setting, below.

down&up

Sorts chord notes on downbeats in descending order and chord notes on up beats in ascending order.

• **Grid**

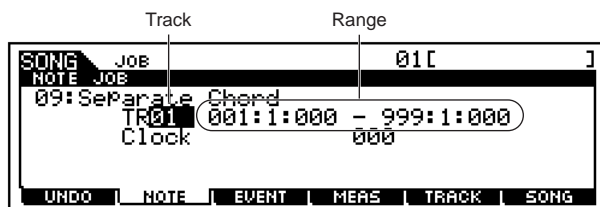
Determines the type of note that will serve as the basis for the Chord Sort job.

- Settings

- 32nd note
- 16th note triplet
- 16th note
- 8th note triplet
- 8th note
- 1/4 note triplet
- 1/4 note
- 16th note + 16th note triplet
- 8th note + 8th note triplet

● [F2]-09 **Separate Chord**

This job slightly separates notes in chords within the specified range, inserting a specified number of clocks between each note. Use this job after the Chord Sort Job above, to create guitar-like upstroke or downstroke effects.



• **Clock**

Determines the number of clock cycles inserted between adjacent chord notes.

□ Settings 000 ~ 999

NOTE Note that there are 480 clock cycles per quarter note.

NOTE It is not possible to separate chords so that they cross the next measure boundary or chord.

[F3] **Event Job**

Press the [F3] button in step #3 of the Basic Procedure on page 193 so that the Event Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



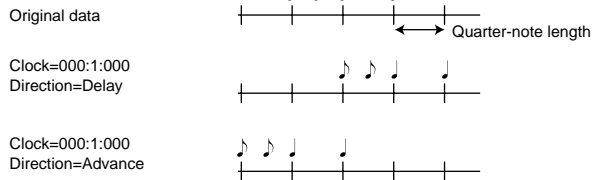
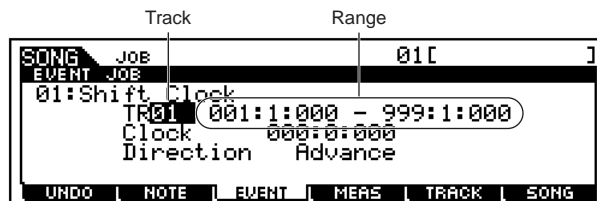
The following explanations apply to step #6 of the Basic Procedure on page 193.

NOTE Before executing the Event Job, make sure that you specify the track and range (measure : beat : clock) to which the job is applied. Please note that the track to be specified varies depending on the Job.

● [F3]-01 **Shift Clock**

This Job shifts all data events in the specified range forward or backward by the specified number of clocks.

One useful application for this would be to change the rhythmic feel of a drum track or bass track, subtly shifting it in time relative to the other tracks — to create a rushed feel or a laid-back feel.



• **Clock**

Determines the amount by which the data will be delayed or advanced in measures, beats, and clocks.

□ Settings 000:0:000 ~ 999:16:479

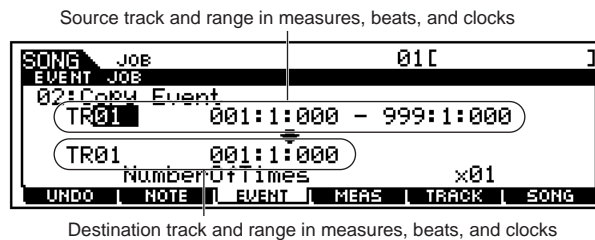
• **Direction**

Determines the direction in which the data will be shifted. ADVANCE moves the data toward the beginning of the sequence, while DELAY shifts the data toward the end of the sequence.

□ Settings Advance, Delay

● [F3]-02 **Copy Event**

This Job copies all data from a specified source range to a specified destination location.



• **Source track and range, Destination track and range**

□ Settings
Track 01 ~ 16, tmp (tempo), scn (scene), all
Range 001:1:000 ~ 999:16:479

• **NumberOfTimes**

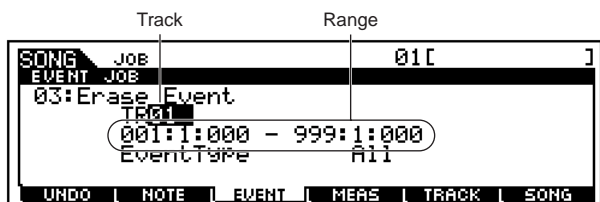
Determines the number of times the data is copied.
□ Settings 01 ~ 99

CAUTION

When Copy Event is executed, any data already existing at the Destination location will be overwritten.

● [F3]-03 Erase Event

This Job clears all specified events from the specified range, effectively producing a segment of silence.



• Event Type

Determines the event type to be erased.
All events are cleared when ALL is selected.
Individual control change numbers can be specified when erasing control change events.

□ Settings

When TR is set to 01 ~ 16:

Note (Note events), PC (Program Change), PB (Pitch Bend), CC: 000-127, all (Control Change, Control Change number), CAT (Channel Aftertouch), PAT (Polyphonic Aftertouch), EXC (System Exclusive), All (all events)

When TR is set to "tmp" (Tempo):

tmp (tempo)

When TR is set to "scn" (Scene):

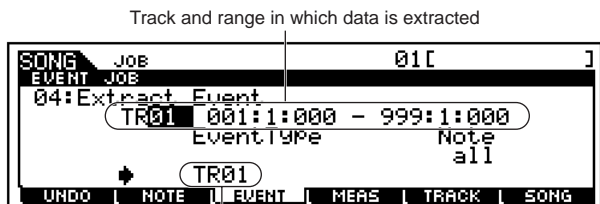
Scene Memory (Scene change information), Track Mute (Track mute setting change information)

NOTE Keep in mind that applying this Job to a track with sample voices erases the events that trigger the samples, but it does not erase the actual samples themselves.

● [F3]-04 Extract Event

This Job moves all instances of specified event data from a specified range of a track to the same range in a different track.

One useful application for this would be to extract all instances of a certain note out of a track, and send them to a new track for separate editing.



Destination track

• Track and range in which data is extracted

- Settings Track 01 ~ 16
Range 001:1:000 ~ 999:16:479

• Event Type

Selects the event type to be extracted.
Specific note and control change numbers can also be specified as required.

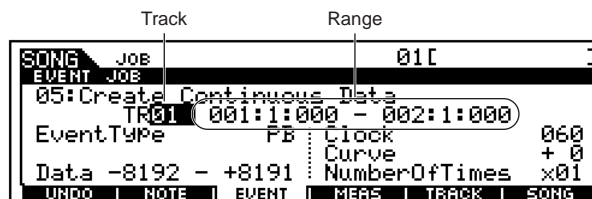
- Settings Note (Note : Note number), PC (Program Change), PB (Pitch Bend), CC: 000-127, all (Control Change, Control Change number), CAT (Channel Aftertouch), PAT (Polyphonic Aftertouch), EXC (System Exclusive)

• Destination track

- Settings 01 ~ 16

● [F3]-05 Create Continuous Data

This Job creates continuous pitch bend or control change data over the specified range.



• Event Type

Determines the event type to be created.

- Settings PB (Pitch Bend), CC: 000-127, all (Control Change, Control Change number), CAT (Channel Aftertouch), EXC (System Exclusive), tmp (Tempo)

• Data Range

Determines the lower and upper limits for the data range to be created. The left value is the lower limit, and the right value is the upper limit.

- Settings When Event Type is set to PB
-8192 ~ +8191
When Event Type is set to tmp: 1.0 ~ 300.0
When Event Type is set to other : 0 ~ 127

• Clock

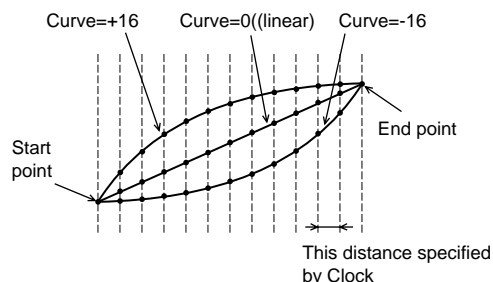
Determines the number of clocks to be inserted between each created event.

- Settings 001 ~ 999

• Curve

Determines the "curve" of the continuous data. Refer to the graph below for approximate curve shapes.

- Settings -16 ~ +16



• **Number Of Times**

Determines the number of times the data creation is to be repeated.

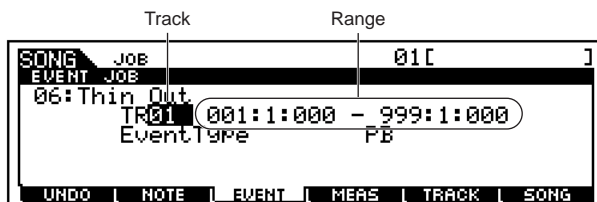
For example, if data is created in the range M001:1:000 ~ M003:1:000 and this parameter is set to 03, the same data will be created at M003:1:000 ~ M005:1:000 and M005:1:000 ~ M007:1:000.

This Job lets you to insert continuous volume or filter cutoff variations to create tremolo or wow effects.

- Settings 01 ~ 99

● **[F3]-06 Thin Out**

This Job thins out the specified type of continuous data in the specified range — allowing you to free up memory space for other data or further recording.



• **Event Type**

Determines the event type to be thinned.

- Settings PB (Pitch Bend), CC: 000-127, all (Control Change, Control Change number), CAT (Channel Aftertouch), PAT (Polyphonic Aftertouch)

NOTE The Thin Out Job will not work on continuous data that has a clock interval of greater than 60 clocks per event.

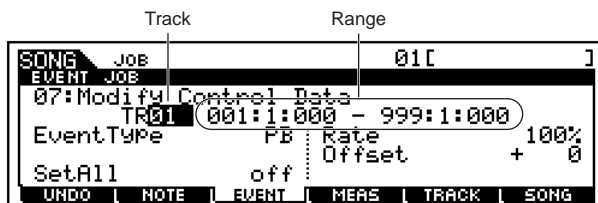
● **[F3]-07 Modify Control Data**

This Job lets you change the values of a specified type of control change data — pitch bend, control change, aftertouch, etc. — in the specified range. Data changes are calculated as follows:

Modified value

$$= (\text{original value} \times \text{Rate}) + \text{Offset.}$$

The modified value cannot exceed the minimum/maximum limits of the parameter. Any result lower than the minimum is set to the minimum; any result higher than the maximum is set to the maximum.



• **Event Type**

Determines the event type to be modified.

- Settings PB (Pitch Bend), CC: 000-127, all (Control Change, Control Change number), CAT (Channel Aftertouch), PAT (Polyphonic Aftertouch), tmp (Tempo)

• **Set All**

Sets all target events to the same fixed value. When set to “OFF” the Set All parameter has no effect. When set to a value other than “OFF” the Rate and Offset parameters are unavailable and appear as “***” on the display.

- Settings OFF, 000 ~ 127 (-8192 ~ +8191 for pitch bend, 0.1 ~ 300.0 for tempo)

• **Rate**

Determines the percentage by which the target events will be shifted from their original values.

When the Set All parameter is not “OFF” this parameter appears as “***” and cannot be changed.

- Settings 000% ~ 200%, ***

• **Offset**

Adds a fixed value to the Rate-adjusted event values.

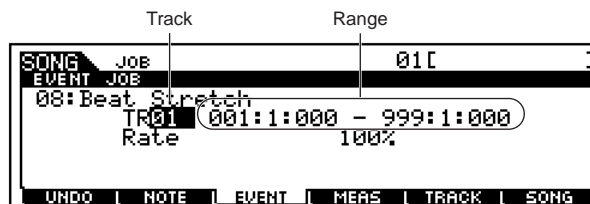
When the Set All parameter is not “OFF” this parameter appears as “***” and cannot be changed.

- Settings -127 ~ 127, *** (-8192 ~ +8191 for pitch bend, ***)

● **[F3]-08 Beat Stretch**

This Job performs time-expansion or compression over the selected range.

Keep in mind that this operation affects all event timing, note step times, and note gate times.



• **Rate**

Determines the amount of time expansion or compression as a percentage.

Settings higher than 100% produce expansion, and settings below 100% produce compression.

- Settings 025% ~ 400%

NOTE Only MIDI data is affected by this job. Sample voices are not expanded or compressed. However, for samples recorded using the Slice + Seq feature, the Beat Stretch job expands or compresses the timing of the note data, step times, and gate times that control playback of the sliced samples. The sample voice itself is not affected.

[F4] Measure Job

Press the [F4] button in step #3 of the Basic Procedure on page 193 so that the Measure Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure on page 193.

● [F4]-01 Create Measure

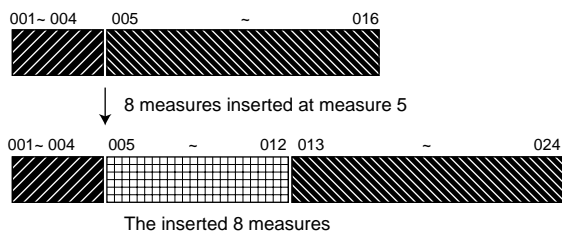
This Job creates empty measures at the specified location in all tracks.



Meter (time signature) of measures to be inserted Number of measures to be inserted

Insertion point (measure number)

Original data



● Meter of measures to be inserted

Determines the meter or time signature of the measures to be created. You may find it convenient to use this parameter when you need to create a song that incorporates meter changes.

Settings 1/16 ~ 16/16, 1/8 ~ 16/8, 1/4 ~ 8/4

● Insertion point (Measure number)

Determines the insert point (measure number) at which the newly created blank measures will be inserted.

Settings 001 ~ 999

● Number of measures to be inserted

Determines the number of empty measures to be created and inserted.

Settings 01 ~ 99

NOTE When empty measures are inserted, measure and meter data following the insert point are moved forward accordingly.

NOTE If the insert point is set after the last measure containing data, only the meter data at that point is set without actually inserting the measures.

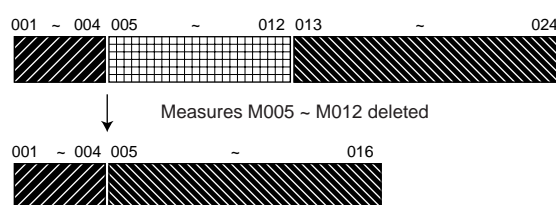
● [F4]-02 Delete Measure

This Job deletes the specified measures. Measure and meter data following the deleted measures are moved backward accordingly.



Delete Range

Original data



● Delete Range

Settings 001 ~ 999

NOTE Keep in mind that applying this Job to a range of measures with sample voices erases the events that trigger the samples, but it does not erase the actual samples themselves.

[F5] Track Job

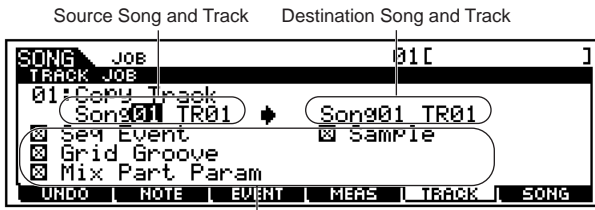
Press the [F5] button in step #3 of the Basic Procedure on page 193 so that the Track Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure on page 193.

● **[F5]-01 Copy Track**

This Job copies all data from a specified source track to the specified destination track.



Data Type to be copied

● **Source Song and Track**

- Settings Song 01 ~ 64
Track 01 ~ 16

● **Destination Song and Track**

- Settings Song 01 ~ 64
Track 01 ~ 16

● **Data Type to be copied**

Determines the type(s) of data to be copied. Select the desired type by checkmarking the appropriate box.

- Settings Seq Event (all events in the track), Grid Groove (for the selected track), Mix Part Param (all Mixing Part parameters), Sample (all samples used by the track)

CAUTION

The copy operation overwrites any data previously existing on the destination track.

CAUTION

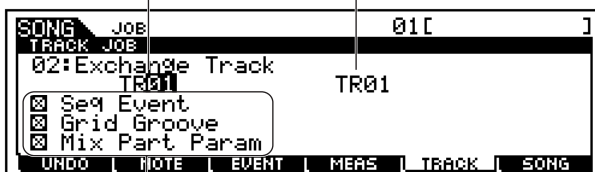
Undo/Redo cannot be used to undo/redo a sample voice operation.

NOTE When there is no memory available in the destination song for sample voice data, the alert message will appear on the display and the sample voice data will not be copied. If this occurs, use Sample Job 02 “Delete” to delete any unused samples, then try again.

● **[F5]-02 Exchange Track**

This Job exchanges or “swaps” the specified type of data between two specified tracks in the current song.

Target tracks for the Exchange operation



Data Type to be exchanged

● **Target tracks for the Exchange operation**

- Settings 01 ~ 16

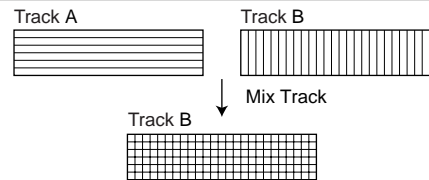
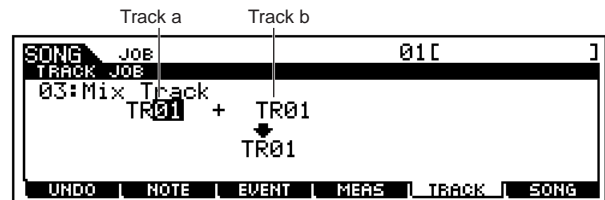
● **Data Type to be exchanged**

Determines the type(s) of data to be exchanged. Select the desired type by checkmarking the appropriate box.

- Settings Seq Event (all events in the track), Grid Groove (for the selected track), Mix Part Param (all Mixing Part parameters)

● **[F5]-03 Mix Track**

This job mixes all data from two selected tracks (“A” and “B”), and places the result in track B. One useful application for this would be to free up the data in track A, letting you record new data to it.



● **Target tracks for the Mix operation**

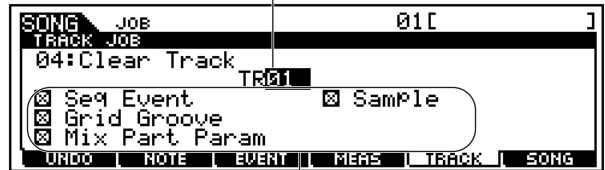
- Settings 01 ~ 16

NOTE Keep in mind that applying this Job to tracks with sample voices does not mix the sample voices.

● **[F5]-04 Clear Track**

This Job deletes all data of the selected type from the selected track, or from all tracks.

Track for which data will be cleared



Data type to be cleared

● **Track for which data will be cleared**

- Settings 01 ~ 16, tmp(tempo), scn(scene), all

● **Data type to be cleared**

Determines the type(s) of data to be cleared. Select the desired type by checkmarking the appropriate box.

- Settings Seq Event (all events in the track), Grid Groove (for the selected track), Mix Part Param (all Mixing Part parameters), Sample (all samples used by the track)

⚠ CAUTION

Undo/Redo cannot be used to undo/redo a Clear operation for tracks that contain sample data.

● [F5]-05 Normalize Play Effect

This job rewrites the data in the selected track so that it incorporates the current Grid Groove settings.



• TR (Track)

Determines the song track to which the Job is applied.

- Settings 01 ~ 16, all

● [F5]-06 Divide Drum Track

Separates the note events in a drum performance assigned to a specified track, and places the notes corresponding to different drum instruments in separate tracks (tracks 1 through 8). One useful application for this would be to use Quantize (page 194) and Shift Clock (page 198) to independently adjust the timing of different drum parts in the rhythm, to tighten up the timing and yet create a more natural sounding feel.



• TR (Track)

Determines the song track to which the job is applied.

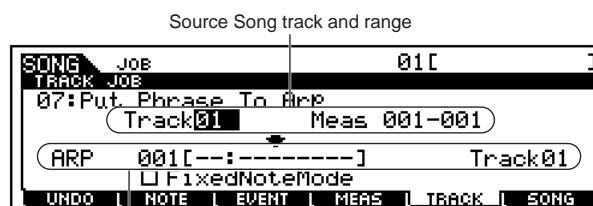
- Settings 01 ~ 16

NOTE In order to use this Job, tracks 1 - 8 must be empty. If there aren't enough empty tracks, an error message appears. If this happens, use the Clear Track Job (page 202) to delete tracks 1 - 8, then try the Job again.

● [F5]-07 Put Phrase To ARP

Basic Structure (page 56)

This Job copies data in the specified measures of a track for creating Arpeggio data. Note that Arpeggio data can be made up of data from four separate tracks; however, the Job must be performed separately on each track, one by one.



Destination Arpeggio number and its track

• Source Song track and range

- Settings Track 01 ~ 16
Range 000 ~ 999

• Destination Arpeggio number and its track

This parameter allows you also to name a Destination Arpeggio. For details about the naming function, see "Basic Operation" on page 75.

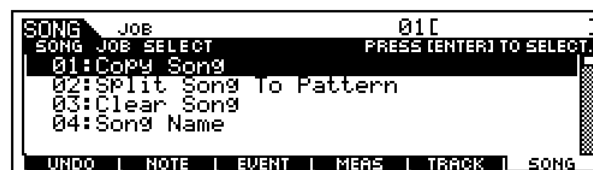
- Settings Track 1 ~ 4

• Fixed Note Mode

When this box is checkmarked, the resulting Arpeggio (first 16 notes) is played back no matter which key is played. Checkmark this when creating rhythm Arpeggios containing only drum/percussion sounds.

[F6] Song Job

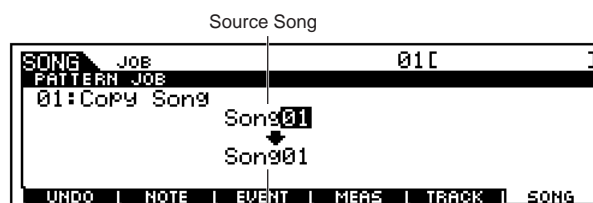
Press the [F6] button in step #3 of the Basic Procedure on page 193 so that the Song Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure on page 193.

● [F6]-01 Copy Song

This Job copies all data from a selected source song to a selected destination song.



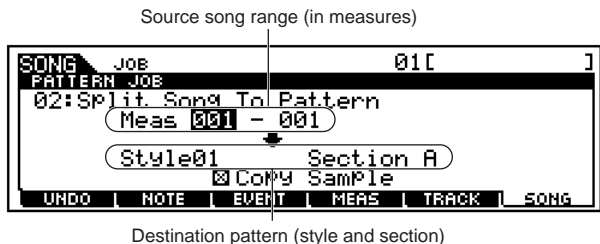
Destination Song

- Settings 01 ~ 64

- **Source song**
 - Settings 01 ~ 64
- **Destination Song**
 - Settings 01 ~ 64

● **[F6]-02 Split Song To Pattern**

This Job allows you to copy a part of the current song — all 16 tracks over a specific range of measures — to a specific section and style, letting you use song data to create a pattern.



- **Source song range (in measures)**
 - Settings 001 ~ 999
- **Destination pattern (style and section)**
 - Settings Style 01 ~ 64
Section A ~ H
- **Copy Sample**

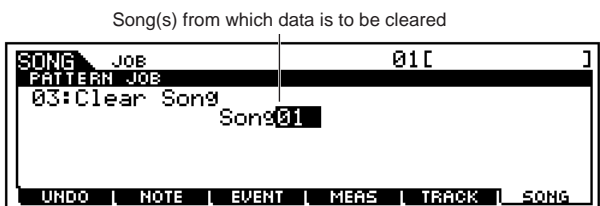
When this box is checkmarked, sample voices assigned to each track in the source song are copied to the split destination style as sample voices and are assigned to the corresponding tracks in that pattern. This checkbox has no effect if no sample voices are assigned to the tracks in the source song.

CAUTION

This Job overwrites any data already existing in the destination pattern.

● **[F6]-03 Clear Song**

This job deletes all data from the selected song or all songs.



- **Song(s) from which data is to be cleared**
 - Settings 01 ~ 64, all

● **[F6]-04 Song Name**

Basic Operation (page 75)

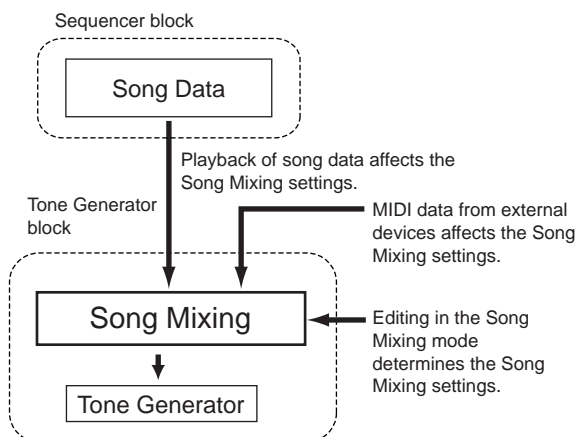
This Job lets you assign a name to the selected song.



See “Basic Operation” on page 75.

Song Mixing mode

In this mode, you can set up and save mixing data for your songs, and set various parameters for the tone generator parts — including the desired voice, as well as its level, pan, EQ, effect and other settings. How the Song Mixing mode affects the tone generator parts, and how it is affected by other elements is made clear by the following diagram.

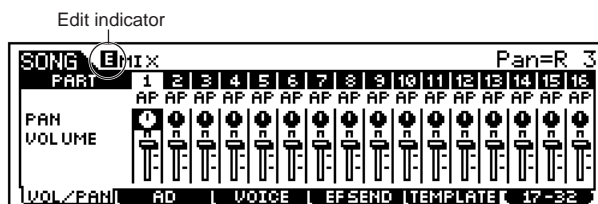


Song Mixing parameters are not actually part of the song data, but rather are settings for the tone generator, as it is played back by the song data. As such, the Song Mixing parameter settings are not recorded to the song tracks.

NOTE Even if the selected song has no sequence data, this Mixing data can be stored to User memory as song data. Playing back such song data transmits the mixing setup to the external MIDI instrument.

◆ The [E] Indicator

If you alter any parameters in the Song Mixing mode, the [E] indicator will appear in the top left of the display. This indicates that the current Song Mixing settings have been modified but not yet stored.



⚠ CAUTION

The [E] indicator will disappear when you select another song and all edited data will be lost. It is a good idea to store the edited song data in the Song Mixing Store mode (page 214). Even if you lose the Song Mixing edited data, you can restore it by using the Edit Recall function (page 158).

NOTE As shown above, the Song Mixing settings can be affected or overridden by song playback and external MIDI data. Keep in mind that because of this, the [E] indicator may appear in the display — even though you've made no changes or edits to the Song Mixing settings yourself.

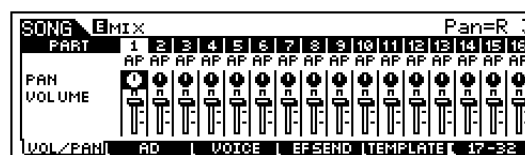
Song Mixing mode (Simple Mixer functions)

NOTE The parameters that have the same name in the Song Mixing mode and in the Song Mixing Edit mode have the same functions and settings.

◆ Basic Procedure

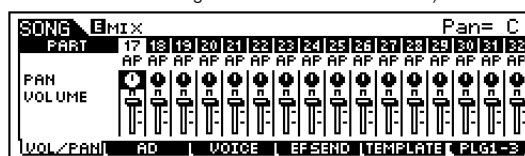
- 1 In the Song Play mode, select a User Song to be mixed.
- 2 Press the [MIXING] button to enter the Song Mixing mode. (The indicator lights.)
- 3 Select a display for the parts you wish to mix by using the [F6] button.

Internal Tone Generator Parts 1~16



Multi Part Plug-in Parts 17~32

(When the Multi Part Plug-in board has been installed)



Single Part Plug-in Parts 1~3

(When the Single Part Plug-in board has been installed)



NOTE Please note that the Muti-Part Plug-in Part (17 ~ 32) settings apply not to one individual song but to all 64 songs.

- 4 Select the menu you wish to edit by pressing the [F1] - [F5] buttons, then edit parameters in each display.

NOTE If you wish to edit more detailed Mixing parameters, you can enter the Song Mixing Edit mode by pressing the [EDIT] button. For details, refer to “Song Mixing Edit mode” on page 207.

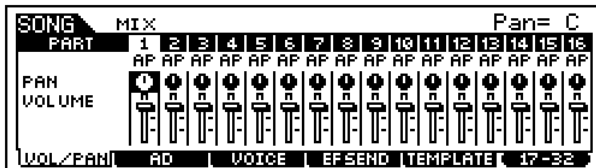
- 5 Store the settings edited in step #4 to the User Memory as required.

6 Press the [SONG] button to exit from the Song Mixing mode and return to the Song Play mode.

- For detailed instructions on steps #4, see the following explanations.
- For details on step #5, refer to “Song Mixing Store mode” on page 214.

● [F1] VOL/PAN

From this display you can set the Pan and Volume for each part (track).



NOTE You can select a part by moving the cursor or by using the NUMBER buttons while the [TRACK SELECT] indicator is on (page 181).

• PAN

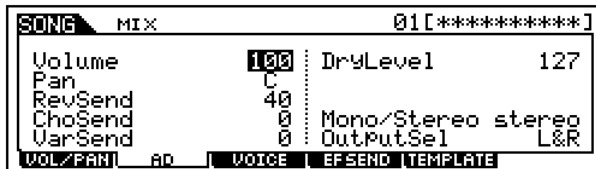
Determines the stereo pan position for each part.
 Settings L64 (far left) ~ C (center) ~ R63 (far right)

• VOLUME

Determines the volume for each part.
 Settings 0 ~ 127
NOTE You can also adjust the Volume by using the Control Sliders. See page 48 for details.

● [F2] AD

From this display you can set various mixing parameters for the A/D part, input via the A/D INPUT jack or the mLAN terminal (when the optional mLAN8E has been installed).



Same as in the Performance Play mode. See page 160.

● [F3] VOICE

Basic Structure (page 43) - Reference (page 124)

From this display you can select a voice for each part.



Sample voices can also be selected (page 52).

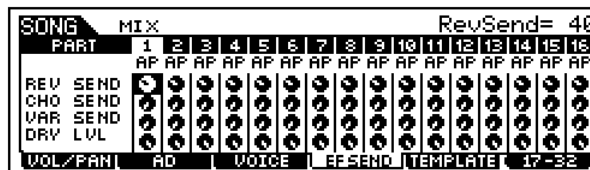
NOTE You can select a part by moving the cursor or by using the NUMBER buttons while the [TRACK SELECT] indicator is on (page 181).

NOTE The Category Search function can also be used to select voices here (with the exception of the Multi-part Plug-in parts 17 - 32).

● [F4] SEND (Effect Send)

Basic Structure (page 39)

From this display you can make basic effect settings for each track — the Reverb, Chorus and Variation Send levels, as well as the Dry Level.



Settings 0 ~ 127

● [F5] TEMPLATE

This convenient function lets you store your mixing settings as a template — allowing you to easily set up similar mixes by calling up the proper template, then tweaking it as needed. Templates are part of the System data (page 63) in the Utility mode and not as data for each song.



Template Number
 Template Name
 Pressing the [SF4] button lets you call up the template selected at left.

Press the [SF5] button lets you save the current setting to the template selected at left.

NOTE Since the Song Mixing templates are stored as System data (page 64) in the SRAM, the data is maintained even when the power is turned off.

- **Template number**
Determines the template number. Up to 16 templates can be created.
□ Settings 1 ~ 16
- **Template name**
Determines the name of the template. For details about naming, see “Basic Operation” on page 75.

Song Mixing Edit mode (Detailed Mixer functions)

◆ The Compare Function

This convenient function lets you switch between the edited mixing setting and its original, unedited condition — allowing you to listen to the difference between the two and better hear how your edits affect the song.

- 1 In the Song Mixing Edit mode, press the [COMPARE] button so that its indicator flashes. The [EDIT] indicator is shown at the top of the display (in place of the [E] indicator), and the original, unedited Song Mixing settings are restored for monitoring.

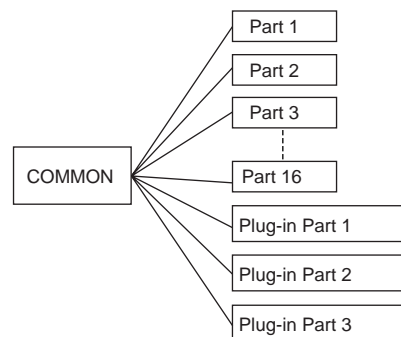


- 2 Press the [EDIT] button again to disable the “Compare” function and restore the settings for your edited Song.

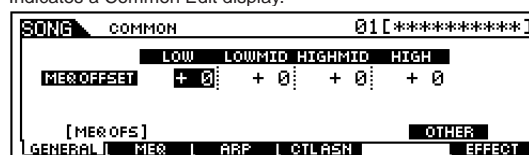
NOTE While Compare is active, you cannot make Song Mixing edits.

◆ Common edit and Part edit

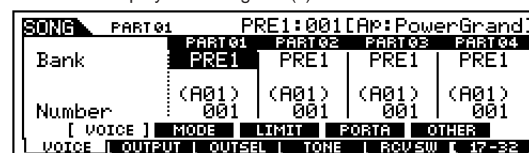
Use Common Edit to edit the settings common to all parts. There are two types of Song Mixing displays: those for Common Edit, and those for editing individual parts.



Indicates a Common Edit display.



Indicates a display for editing Part(s).



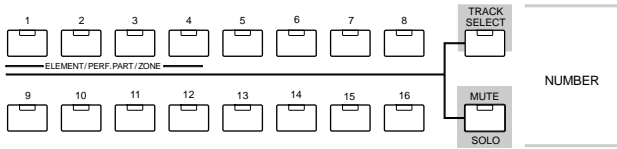
NOTE Common Edit operations cannot be performed on the Multi-part Plug-in parts 17 - 32.

◆ Basic Procedure

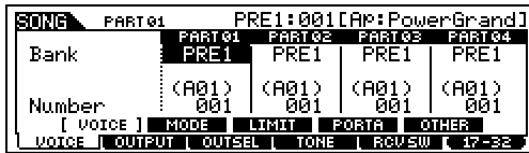
- 1 In the Song Play mode, select a User Song to be mixed.
- 2 Press the [MIXING] button to enter the Song Mixing mode. (The indicator lights.)
- 3 Press the [EDIT] button to enter the Song Mixing Edit mode. (The indicator lights.)
- 4 Select a part to be edited.
 - To edit parameters common to all parts, press the [DRUM KITS] button (which serves as a “COMMON” button here).



- To edit parameters of the individual parts, select the desired part with the corresponding NUMBER button ([1] - [16]). You can select parts for the Plug-in board by using the [F6] button (as shown below).



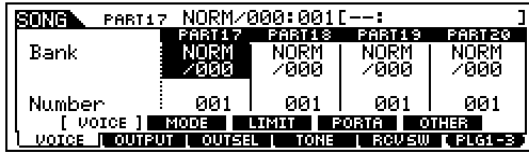
Internal Tone Generator Parts 1~16



[F6]

Multi Part Plug-in Parts 17~32

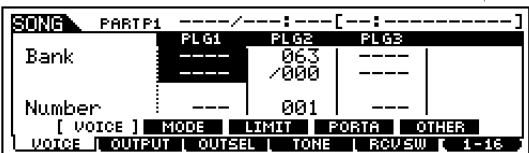
(When the Multi Part Plug-in board has been installed)



[F6]

Single Part Plug-in Parts 1~3

(When the Single Part Plug-in board has been installed)



[F6]

NOTE Please note that the Multi-Part Plug-in Part (17 ~ 32) settings apply not to one individual song but to all 64 songs.

5 Select the menu you wish to edit by pressing the [F1] - [F5] buttons and edit parameters in each display.

6 Store the settings edited in step #5 to the User Memory as required.

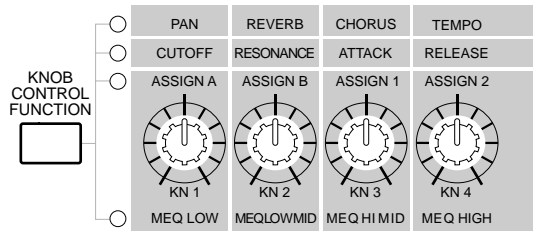
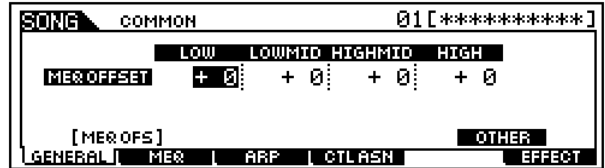
7 Press the [SONG] button to exit from the Song Mixing mode and return to the Song Play mode.

- For detailed instructions on steps #5, see the following explanations.
- For details on step #6, refer to “Song Mixing Store mode” on page 214.

Common edit

[F1]-[SF1] Song Mixing Common General Master EQ Offset

The Song Mixing parameters feature global EQ settings for all parts of the selected song (see “MEQ”, page 209). The settings made here in this display are applied as offsets to those MEQ settings (with the exception of “MID”). You can set the parameters below by using the four Knobs on the panel.



Settings -64 ~ +63

[F1]-[SF5] Song Mixing Common General Other

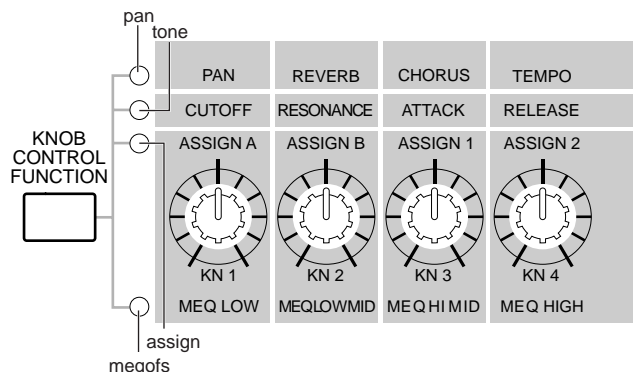
From this display you can set the control functions for the Knobs.



Knob Assign

Determines the function for the assignable Knobs (1 - 4). Pressing the [KNOB CONTROL FUNCTION] button on the panel sets the desired function row, which is automatically stored to memory with the currently selected song.

Settings pan, tone, assign, MEQofs



• **ChoCtrl (Chorus Control)**

Determines the depth of the Chorus effect, as controlled by the Knob assigned to Chorus Send.

□ Settings -64 ~ +63

• **Assign A, Assign B, Assign 1, Assign 2**

This lets you directly set and memorize the value for each Assign Knob (A, B, 1, and 2), from the Knob itself. Simply tweak the knob to the desired setting.

□ Settings -64 ~ +63

● **[F2] Song Mixing Common MEQ (Master Equalizer)**

From this display you can apply five-band equalization to all parts of the selected song.

SONG	COMMON	01[*****]				
	LOW	LOWMID	MID	HIGHMID	HIGH	
SHAPE	shelv					shelv
FREQ	80	200	500	3.2k	8.0k	
GAIN	+0	+0	+0	+0	+0	
Q	0.7	0.7	0.7	0.7	0.7	

Same as in Performance Common Edit. See page 165.

● **[F3]-[SF1] Song Mixing Common Arpeggio Arpeggio type**

Basic Structure (page 55)

The basic parameters (e.g., type) of the Arpeggio are provided in this display.

When a User Arpeggio is selected, you can clear the selected Arpeggio data by using the [SF5] button.

SONG	COMMON	01[*****]	
Bank	user	Switch	off
Type	---	Hold	off
		KeyMode	sort
		VelMode	original

This appears only when User Arpeggio is selected.

This is the same as in Voice Normal Common Edit (page 132), except that the Tempo setting is not available here, since the Arpeggio plays according to the song tempo.

● **[F3]-[SF2] Song Mixing Common Arpeggio Arpeggio Limit**

SONG	COMMON	01[*****]	
NoteLimit	0 - 2	VelLimit	1 - 127

Same as in Voice Normal Common Edit. See page 133.

● **[F3]-[SF3] Song Mixing Common Arpeggio Play FX (Effect)**

SONG	COMMON	01[*****]	
UnitMultiply	100%	VelocityRate	100%
		GateTimeRate	100%

Same as in Voice Normal Common Edit. See page 133.

● **[F3]-[SF4] Song Mixing Common Arpeggio Output channel**

SONG	COMMON	01[*****]	
OutputSwitch	off		
TransmitCh	1		

Same as in Performance Common Edit. See page 168.

● **[F4] Song Mixing Common Controller Assign**

The controllers and knobs on the front panel can be used to change and adjust a variety of parameters for each song — in real time, and simultaneously.

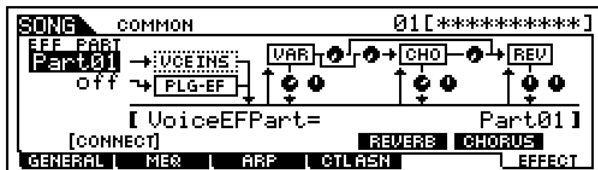
SONG	COMMON	01[*****]	
BC	02[Breath]	AS1	16[General1]
		AS2	17[General2]
		FC1	11[Express]
		FC2	04[FootCtrl]

Same as in Performance Common Edit. See page 169.

[F6]-[SF1] Song Mixing Common Effect Connection

Basic Structure (page 41)

This display gives you comprehensive control over the effect connections.



Same as in Performance Common Edit. See page 169.

[F6]-[SF2], [SF3],[SF4],[SF5] Common Effect Parameter Plug-in Insertion, Reverb, Chorus, Variation
Basic Structure (page 39)

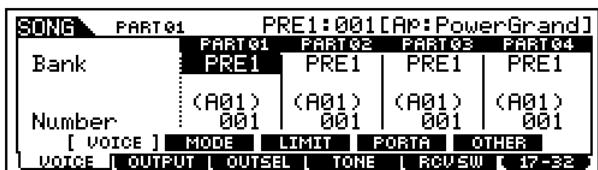
The number of parameters and values available differs depending on the currently selected effect type. For more information, see the Effect Type List in the separate Data List booklet.

Part Edit

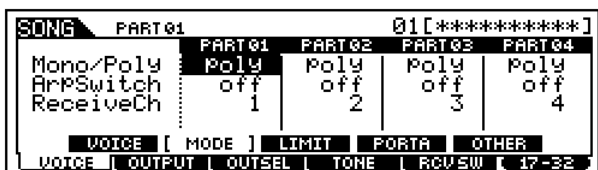
NOTE Please note that the Muti-Part Plug-in Part (17 ~ 32) settings apply not to one individual song but to all 64 songs.

[F1]-[SF1] Song Mixing Part Voice

From this display you can select the voice for each part. When the cursor is located at the Bank parameter, you can directly select a voice by using the appropriate BANK, GROUP and NUMBER buttons on the panel (as long as the [TRACK SELECT] indicator is off). (pages 124 ~ 125)



[F1]-[SF2] Song Mixing Part Voice Play Mode



Mono/Poly

Determines whether the voice for the selected part is played back monophonically (single notes only) or polyphonically (multiple simultaneous notes).

Settings Mono, Poly

NOTE This parameter is not available for the part to which the Drum Voice is assigned.

ArpeggioSw (Arpeggio Switch)

Determines whether Arpeggio is on or off for the selected part.

Settings on, off

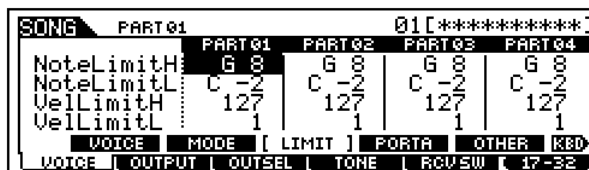
NOTE ArpeggioSw is not available for the Multi Part Plug-in Parts 17 ~ 32.

ReceiveCh (Receive Channel)

Determines the MIDI receive channel for the selected part. Since MIDI data may be coming from many channels at once, you should set this to match the particular channel over which the desired controlling data is being sent.

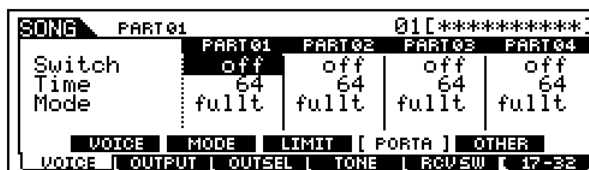
Settings 01 ~ 16, off

[F1]-[SF3] Song Mixing Part Voice Limit



Same as in Performance Part Edit. See page 170.

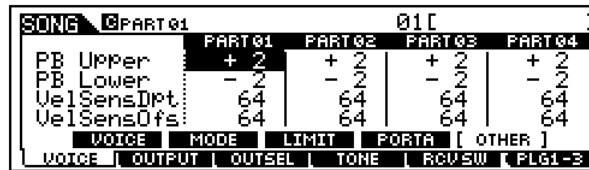
[F1]-[SF4] Song Mixing Part Voice Portamento



Same as in Performance Part Edit. See page 171.

NOTE The Mode setting is not available for Plug-in voice parts.

[F1]-[SF5] Song Mixing Part Voice Other



Same as in Performance Part Edit. See page 171.

NOTE For all Plug-in voice parts, Pitch Bend Upper and Lower become a single parameter: PB Range. Upper and Lower values cannot be set independently for Plug-in parts. (See page 171.)

● [F2]-[SF1] Song Mixing Part Output Volume/Pan

SONG	PART01	PART02	PART03	PART04
Volume	100	100	100	100
Pan	C	C	C	C
VoiceELPan	on	on	on	on

[VOL/PAN] [EFSEND]

VOICE | OUTPUT | OUTSEL | TONE | RCUSW | 17-32

Same as in Performance Part Edit. See page 172.

NOTE The Voice Pan setting is not available for Plug-in voice parts.

● [F2]-[SF2] Song Mixing Part Output Effect Send

SONG	PART01	PART02	PART03	PART04
RevSend	40	40	40	40
ChoSend	0	0	0	0
VarSend	0	0	0	0
DrumLevel	127	127	127	127

[VOL/PAN] [EFSEND]

VOICE | OUTPUT | OUTSEL | TONE | RCUSW | 17-32

Same as in Performance Part Edit. See page 172.

● [F3] Song Mixing Part Output Select

From this display you can determine the specific jack or terminal to which the selected part is to be output.

SONG	PART01	PART02	PART03	PART04
OutputSel	L&R	L&R	L&R	L&R
InsEF	(on)	(off)	(off)	(off)

VOICE | OUTPUT | OUTSEL | TONE | RCUSW | 17-32

Same as in Performance Part Edit. See page 173.

● [F4]-[SF1] Song Mixing Part Tone Tune

SONG	PART01	PART02	PART03	PART04
NoteShift	+ 0	+ 0	+ 0	+ 0
Detune	+ 0.0	+ 0.0	+ 0.0	+ 0.0

[TUNE] [FILTER] [FEG] [AEG]

VOICE | OUTPUT | OUTSEL | TONE | RCUSW | 17-32

Same as in Performance Part Edit. See page 173.

● [F4]-[SF2] Song Mixing Part Tone Filter

Basic Structure (page 46)

From this display you can set various Filter related settings, to change the tonal qualities of the selected part's voice.

SONG	PART01	PART02	PART03	PART04
Cutoff	+ 0	+ 0	+ 0	+ 0
Resonance	+ 0	+ 0	+ 0	+ 0
FEGDepth	+ 0	+ 0	+ 0	+ 0

[TUNE] [FILTER] [FEG] [AEG]

VOICE | OUTPUT | OUTSEL | TONE | RCUSW | 17-32

Same as in Performance Part Edit. See page 173.

NOTE The FEG Depth setting is not available for Plug-in voice parts.

● [F4]-[SF3] Song Mixing Part Tone FEG

Basic Structure (page 47)

From this display you can set the FEG (Filter Envelope Generator) parameters for each part. The following parameters offset the same parameters in the Voice (Element) Edit mode (page 143).

SONG	PART01	PART02	PART03	PART04
Attack	+ 0	+ 0	+ 0	+ 0
Decay	+ 0	+ 0	+ 0	+ 0
Sustain	+ 0	+ 0	+ 0	+ 0
Release	+ 0	+ 0	+ 0	+ 0

[TUNE] [FILTER] [FEG] [AEG]

VOICE | OUTPUT | OUTSEL | TONE | RCUSW | 17-32

Same as in Performance Part Edit. See page 173.

NOTE The FEG setting is not available for Plug-in voice parts or parts to which Drum voices have been assigned.

● [F4]-[SF4] Song Mixing Part Tone AEG

Basic Structure (page 47)

From this display you can set AEG (Amplitude Envelope Generator) parameters for each part. The following parameters offset the same parameters in the Voice (Element) Edit mode (page 145).

SONG	PART01	PART02	PART03	PART04
Attack	+ 0	+ 0	+ 0	+ 0
Decay	+ 0	+ 0	+ 0	+ 0
Sustain	+ 0	+ 0	+ 0	+ 0
Release	+ 0	+ 0	+ 0	+ 0

[TUNE] [FILTER] [FEG] [AEG]

VOICE | OUTPUT | OUTSEL | TONE | RCUSW | 17-32

Same as in Performance Part Edit. See page 174.

NOTE The Sustain setting is not available for Plug-in voice parts or parts to which Drum voices have been assigned.

NOTE The Release setting is not available for parts to which Drum voices have been assigned.

● **[F5] Song Mixing Part Receive Switch**

From this display you can set how each individual part responds to various MIDI data, such as Control Change and Program Change messages. When the relevant parameter is set to “on,” the corresponding part responds to the appropriate MIDI data. Note that two different display types (below) are provided.

● **Display showing four parts**

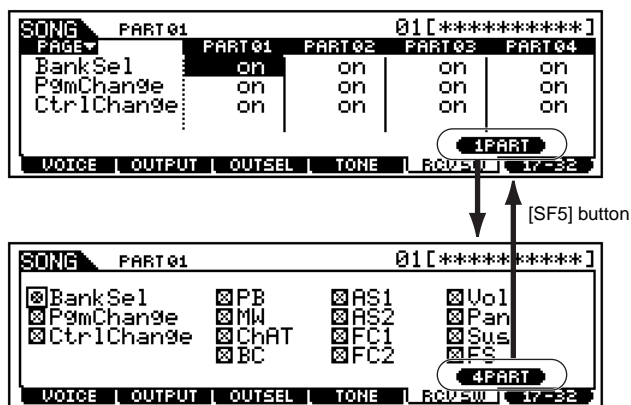
This display type shows the Receive Switch status for four parts at a time. Set the desired part on or off, for the corresponding MIDI data type. To view and edit another set of four parts, press the appropriate [NUMBER] button, [1] to [16].

Keep in mind that since all the available parameters cannot be simultaneously displayed, you will need to use the cursor controls to scroll the display in order to see and set the other parameters.

● **Display showing all parameters for one part**

This display type shows all of the Receive Switch settings for a single selected part. Set the desired MIDI data type on or off for the selected part. To select other parts, use the NUMBER [1] - [16] buttons (making sure that the [TRACK SELECT] button is on).

The two display types are linked and feature the same settings, only in different formats. Use the type you feel most comfortable with.



Reference Song mode

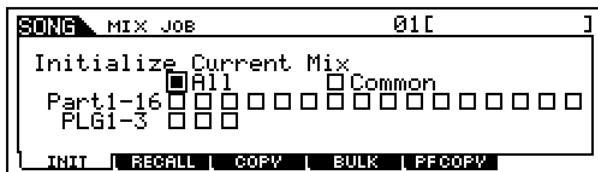
Song Mixing Job mode

◆ **Basic Procedure**

- 1 In the Song Play mode, select a Song you wish to execute the Job on.
- 2 Press the [MIXING] button to enter the Song Mixing mode.
- 3 Press the [JOB] button to enter the Song Mixing Job mode.
- 4 Select the desired Job menu by pressing the appropriate button, [F1] - [F5].
- 5 Set the relevant Job parameters.
- 6 Press the [ENTER] button. (The display prompts you for confirmation.)
- 7 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.
 - NOTE To cancel the Job, press the [DEC/NO] button.
- 8 Press the [MIXING] button to exit from Song Mixing Job mode and return to Song Mixing mode.
 - For detailed instructions on steps #3 - #5, see the explanations below.

CAUTION

For Jobs that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.



- Type of parameter to be initialized

ALL

All settings for the selected Song Mixing are initialized.

Common

Common parameter settings for the selected Song Mixing program are initialized.

Part 1 ~ 16, PLG 1 ~ 3

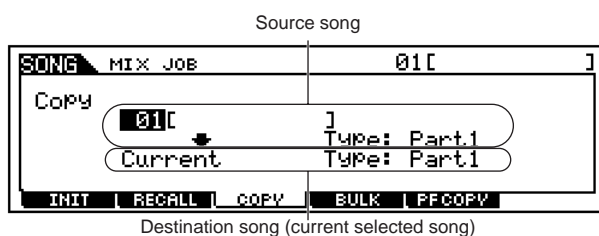
Part parameter settings for the selected Song Mixing program are initialized.

● **[F2] Edit Recall**

If you are editing a Song Mixing program and select a different program without storing your edited one, all the edits you've made will be erased. If this happens, you can use Edit Recall to restore the Song Mixing program with your latest edits intact.

● **[F3] Copy**

From this display you can copy part parameter or effect settings from any Song Mixing program to the one you are editing. This would come in handy when you want to use some settings from another program.



● **Source song**

Select a song and Mixing data type to be copied.

- Data type Part 1 ~ 32, PLG 1 ~ 3

● **Data type of Destination song (current selected song)**

Set the Part of the destination song.

- Data type Part 1 ~ 32, Plug 1 ~ 3, Arp, Effect (Reverb, Chorus)

NOTE If you choose Arp (Arpeggio) or Effect, the Arpeggio data or Effect settings for the Voice assigned to the source Part will be copied.

● **[F4] Bulk Dump**

This function lets you send all your edited parameter settings for the currently selected Song Mixing program to a computer or another MIDI device for data archiving.

NOTE You must set the correct MIDI Device Number in order to execute a Bulk Dump. For details, see page 258.

● **[F5] Performance Copy**

This convenient operation lets you copy certain settings of the four parts in a performance to the Song Mixing program currently being edited. This would come in handy when a certain performance has settings that you want to use in your Song Mixing program. Use this Job to simply copy the settings you need.

The MIDI receive channel settings are set to match the basic channel settings (page 260). When the basic channel is set to "omni," the receive channel here is set to 1. To select a group of parameters for copying, checkmark the appropriate box in the display.



Song Mixing Store mode

.....
Basic Structure (page 63)

This function lets you store your edited Song Mixing program to User memory.

CAUTION

When you execute this, the settings for the destination memory will be overwritten. Important data should always be backed up to a memory card or SCSI device.

◆ **Basic Procedure**

- 1** After editing the Song Mixing, press the [STORE] button to enter the Song Mixing Store mode.
- 2** Press the [ENTER] button. (The display prompts you for confirmation.)
- 3** To execute the Store operation, press the [INC/YES] button. After the Song Mixing program has been stored, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Store operation, press the [DEC/NO] button.

CAUTION

For Store operations that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

NOTE The stored settings are recalled automatically when the corresponding song is selected.

Pattern Mode

Basic Structure (page 51)

Function Tree

This section is devoted to the Pattern mode. To see how the Pattern mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30. The following detailed chart shows all of the display menus and parameter groups of the Pattern modes — giving you a quick, easy-to-understand overview of the pattern-related functions of the MOTIF. Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

[PATTERN]	[INFORMATION] PATTERN INFORMATION	P. 276
	[PATTERN] PATTERN PLAY	P. 217
	[F1] PATTERN PLAY	P. 217
	[F2] PATTERN GRID GROOVE	P. 218
	[F3] PATTERN TRACK OUTPUT CHANNEL	P. 218
	[F4] PATTERN PATCH	P. 219
	[Sf4] CLEAR PHRASE	P. 219
	[Sf5] COPY PHRASE	P. 219
	[F5] TRACK VOICE	P. 218
	[F6] PATTERN CHAIN PLAY	P. 219
	[EDIT] PATTERN CHAIN EDIT	P. 220
	[Sf1] INSERT MEASURE	P. 220
	[Sf2] DELETE MEASURE	P. 220
	[Sf3] COPY EVENT	P. 220
	[Sf4] CONVERT TO SONG	P. 220
	[Sf5] TRACK SELECT	P. 220
	[REC] PATTERN CHAIN RECORD	P. 220
	[REC] PATTERN RECORD	P. 221
	PATTERN REC SETUP	P. 222
	[F1] SETUP	P. 222
	[F2] VOICE	P. 223
	[CATEGORY] VOICE CATEGORY SEARCH	P. 223
	[F3] ARP	P. 223
	[PLAY] PATTERN RECORDING	P. 223
	[EDIT] PATTERN EDIT	P. 224
	[F1] CHANGE	P. 224
	[F5] INSERT	P. 224
	[F6] DELETE	P. 224
	[F2] VIEW FILTER	P. 224
	[F5] CLEAR ALL	P. 224
	[F6] SET ALL	P. 224
	[JOB] PATTERN JOB	P. 225
	[F1] UNDO/REDO	P. 225
	[F2] NOTE JOB LIST	P. 225
	QUANTIZE	P. 225
	MODIFY VELOCITY	P. 226
	MODIFY GATE TIME	P. 226
	CRESCENDO	P. 226
	TRANSCOPE	P. 226
	GLIDE	P. 226
	CREATE ROLL	P. 226
	SORT CHORD	P. 226
	SEPARATE CHORD	P. 226
	[F3] EVENT JOB LIST	P. 227
	SHIFT CLOCK	P. 227
	COPY EVENT	P. 227
	ERASE EVENT	P. 227
	EXTRACT EVENT	P. 227
	CREATE CONTINUOUS DATA	P. 227
	THIN OUT	P. 227
	MODIFY CONTROL DATA	P. 228
	BEAT STRETCH	P. 228
	[F4] PHRASE JOB LIST	P. 228
	COPY PHRASE	P. 228
	EXCHANGE PHRASE	P. 228
	MIX PHRASE	P. 228
	APPEND PHRASE	P. 229
	SPLIT PHRASE	P. 229
	GET PHRASE FROM SONG	P. 229
	PUT PHRASE TO SONG	P. 229
	CLEAR PHRASE	P. 230
	PHRASE NAME	P. 230

	[F5] TRACK JOB LIST	P. 230
	COPY TRACK	P. 230
	EXCHANGE TRACK	P. 230
	CLEAR TRACK	P. 230
	NORMALIZE PLAY EFFECT	P. 230
	DIVIDE DRUM TRACK	P. 231
	[F6] PATTERN JOB LIST	P. 231
	COPY PATTERN	P. 231
	APPEND PATTERN	P. 231
	SPLIT PATTERN	P. 231
	CLEAR PATTERN	P. 232
	STYLE NAME	P. 232
	[MIXING] PATTERN MIXING	P. 232
	[INFORMATION] MIX INFORMATION	P. 232
	[MIX] MIXING PART	P. 232
	[F1] MIX VOLUME/PAN	P. 232
	[F2] MIX AD	P. 232
	[F3] MIX VOICE	P. 232
	[F4] EFFECT SEND	P. 232
	[F5] MIX TEMPLATE	P. 232
	[EDIT] MIXING EDIT	P. 232
	[COMMON]	P. 232
	[F1] COMMON GENERAL	P. 232
	[SF1] MEQ OFFSET	P. 232
	[SF5] OTHER	P. 232
	[F2] COMMON MASTER EQ	P. 232
	[F3] COMMON ARPEGGIO	P. 232
	[SF1] TYPE	P. 232
	[SF2] LIMIT	P. 232
	[SF3] PLAY FX	P. 232
	[SF4] OUTPUT CHANNEL	P. 232
	[SF5] CLEAR USER ARPEGGIO	P. 232
	[F4] COMMON CONTROLLER ASSIGN	P. 232
	CONTROLLER ASSIGN	P. 232
	[F6] COMMON EFFECT	P. 232
	[SF1] EFFECT CONNECT	P. 232
	[SF2] PLG-EF	P. 232
	[SF3] VARIATION	P. 232
	[SF4] REVERB	P. 232
	[SF5] CHORUS	P. 232
	[PART SELECTION]	P. 232
	[F1] PART VOICE	P. 232
	[SF1] VOICE	P. 232
	[SF2] PLYMODE	P. 232
	[SF3] LIMIT	P. 232
	[SF4] PORTAMENTO	P. 232
	[SF5] OTHER	P. 232
	[F2] PART OUTPUT	P. 232
	[SF1] VOLUME/PAN	P. 232
	[SF2] EFFECT SEND	P. 232
	[F3] PART OUTPUT SELECT	P. 232
	OUTPUT SELECT	P. 232
	[F4] PART TONE	P. 232
	[SF1] TUNE	P. 232
	[SF2] FILTER	P. 232
	[SF3] FEG	P. 232
	[SF4] AEG	P. 232
	[F5] PART RECEIVE SWITCH	P. 232
	[JOB] MIXING JOB	P. 232
	[F1] INITIALIZE	P. 232
	[F2] EDIT RECALL	P. 232
	[F3] COPY	P. 232
	[F4] BULK DUMP	P. 232
	[F5] COPY FROM PERFORMANCE	P. 232
	[STORE] MIX STORE	P. 232

Pattern Play mode

Basic Structure (page 67)

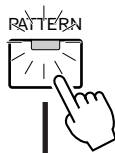
In this mode, you can select and play individual User patterns.

NOTE For details about patterns and their track and memory structure, see page 51.

Basic Procedure

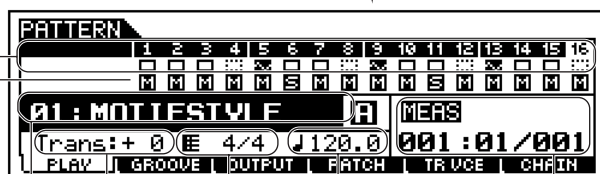
Basic Structure (page 67)

1 Press the [PATTERN] button to enter the Pattern Play mode. (The indicator lights.)



Pattern track number and data status

- No data has been recorded. (A Phrase has not been assigned.)
- MIDI sequence data has been recorded. (Indicates a MIDI track.)
- In addition to MIDI sequence data, the sample data has been recorded. (Indicates a sample track.)



Tempo for the selected style
 Setting 010.0 - 300.0

Time signature for the selected style
 Setting 1/16 - 16/16, 1/8 - 16/8, 1/4 - 8/4

Measure : Beat
 (for current playback location)/
 Total length of the selected pattern

Transpose setting (for all style data)
 Can be adjusted in semitones.
 For example, when a value of +12 is set,
 the pitch of all of the data becomes one octave higher.
 Settings -36 ~ +36

Currently selected pattern (style and section)

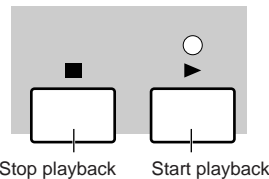


Pattern track on/off status

- Indicates muted track.
- Indicates soloed track (page 218).

2 Select a style and its section.

3 Start/Stop pattern playback.



4 Make necessary or desired settings (e.g., transpose, tempo, individual track on/off status, and so on) in the above display.

5 Select the menu you wish to edit by pressing the [F2] - [F6] buttons and edit the parameters in each display.

NOTE Creating patterns is done with the Patch function, selected with the [F4] button. (See page 219.)

NOTE The Pattern Chain function, selected with the [F6] button, lets create a song by chaining together several different patterns. (See page 219.)

6 Repeat steps #3 through #5 as desired.

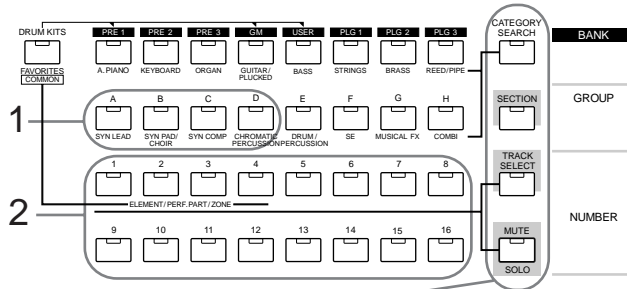
7 Press any other mode button to exit from the Pattern Play mode.

- For detailed instructions on steps #2, 3, 4, and 5, see the following explanations.

Style Selection

The explanations here apply to step #2 of the Basic Procedure see above.

The method for selecting a style is the same as that for selecting songs (page 179), as shown below.



NOTE The explanations here apply when these four button indicators are off.

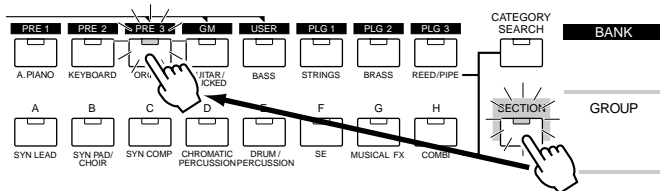
You can also select a style by moving the cursor to the style number location and using the [INC/YES] and [DEC/NO] buttons or the data dial.

● **Style numbers and the corresponding Group/Numbers**

Same as in the Song Play mode. See page 179.

Section Selection

The explanations here apply to step #2 of the Basic Procedure on page 217.



1 Press the [SECTION] button. (The indicator lights.)

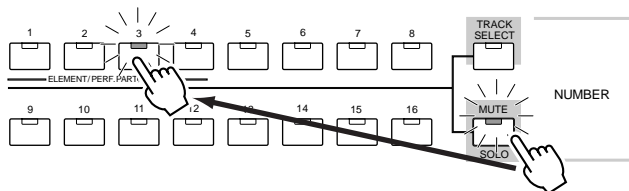
2 Press any of the [PRE1] ~ [PLG3], [A] ~ [H] buttons to select a section from the 16 available sections

Pattern track on/off — Solo and Mute

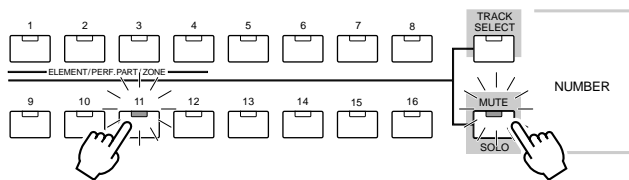
The explanations here apply to step #4 of the Basic Procedure on page 217.

Details are same as “Song track on/off — Solo and Mute” on page 180, as illustrated below.

● **To mute a track**



● **To solo a track**

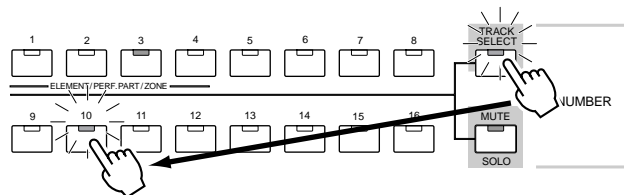


Pattern track selection

The explanations here apply to step #4 of the Basic Procedure on page 217.

In order to edit the Song data, you’ll need to select a track for editing.

Details are same as “Song track selection” on page 181 as illustrated below.



Pattern editing in the Pattern Play mode

The explanations here apply to step #5 of the Basic Procedure on page 217.

● **[F2] Pattern Play Groove**

Same as in the Song Play mode. See page 181.

PATTERN		NoteOffset= +00															
GRID:01		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
NOTE OFST	
CLOCK SFT	
GATE OFST	
VELO OFST	

● **[F3] Pattern Play Output Channel**

Same as in the Song Play mode. See page 182.

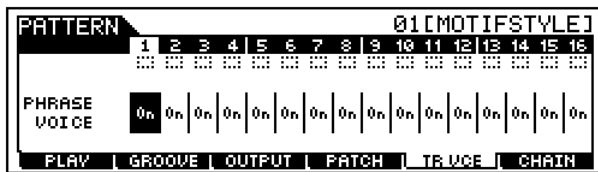
PATTERN		01[MOTIFSTYLE]															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
OUT CH		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PORT		OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

● **[F4] Pattern Play Patch**

Explained later. See page 219.

● **[F5] Pattern Play Track Voice**

Determines whether the program change data contained in the phrase data is effective or not. For most purposes, this should be set to “off.” For example, if a phrase has embedded voice changes (program change messages) but you don’t want the voice to change in the middle of the phrase, set this to “off.” Tracks that are set to “off” here automatically play back with the voice number assigned to the part.



NOTE The Phrase Voice embedded in the Pattern phrase can be specified from the Voice display in the Pattern Record mode (page 223).

● **[F6] Pattern Play Chain Play/Edit**

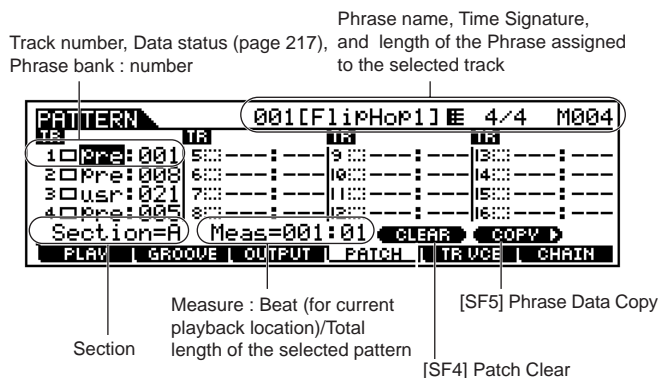
Explained later. See below.

[F4] Patch Function

Basic Structure (page 52) - Quick Start Guide (page 105)

The explanations here apply to step #5 of the Basic Procedure on page 217.

In the following display, you can assign a Preset phrase or a User phrase (recorded in the Pattern Record mode) to each track and create a pattern that contains up to 16 tracks.



● **Track number, Data status, Phrase bank/number**

For details about the Track number and Data status, see the illustration in step #1 of the Basic Procedure on page 217.

The phrase bank and number can be selected via the data dial, [INC/YES] button, or [DEC/NO] button and assigned to the selected track. The assigned phrase name, its time signature and length are indicated at the top right of the display.

NOTE The Patch function allows you to use only User phrases recorded to a track of the currently selected style. If you wish to use User phrases recorded to tracks of other styles, use the Phrase Data Copy function, selected with [SF5] button.

● **Section**

Shows the current edited section. For details about how to change sections, refer to “Section selection” on page 218.

● **Measure : Beat (for current playback location)**

The buttons can be used to change the location (in measures/beats), even during playback.

● **[SF4] Patch Clear**

You can clear the Phrase assignment to the currently selected track by pressing the [SF4] button. As a result, the track becomes empty.

● **[SF5] Phrase Data Copy**

The User phrases that can be assigned with the Patch function are limited to the ones contained in the currently selected pattern style. This function lets you copy phrases on other pattern styles to the selected one.

Press the [SF5] button to call up the following display. After setting the parameters as needed, press the [ENTER] button to copy the phrase data.

Source style number, phrase number



Destination phrase and track of the current edited style.

After setting, press the [ENTER] button to copy the phrase.

When this box is checked, sample voices assigned to the source phrase are copied to the destination phrase as sample voices, and are assigned to the corresponding tracks in the selected pattern.

CAUTION

The copy operation overwrites any data previously existing in the destination phrase.

[F6] Pattern Chain

Basic Structure (page 52) - Quick Start Guide (page 108)

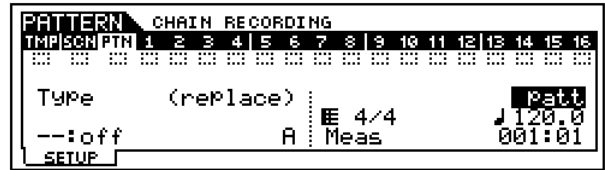
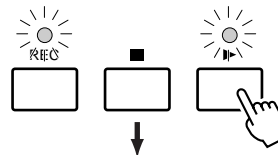
The explanations here apply to step #5 of the Basic Procedure on page 217.

Pattern Chain allows you to string several different Patterns (Style and Section) together to make a single Song. The created Pattern Chain data can then be converted into a Song.

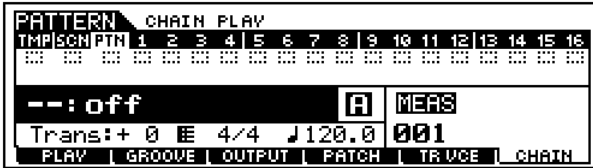
NOTE For details about Pattern Chain and its track and memory structure, see page 54.

■ Creating Pattern Chains with Realtime Playback (Pattern Chain Recording)

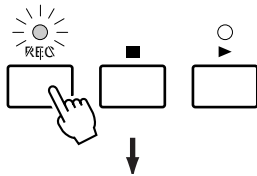
This function makes it possible to specify a sequence of patterns for pattern chain playback. Switching of styles/sections, track muting, scene/mute changes, and tempo changes can all be recorded in real time.



1 In the Pattern Play mode, press the [F6] button to enter the Pattern Chain Play mode as shown below. Details about parameters in this display are same as in step #1 of the Basic Procedure on page 217.



2 Press the [REC] button to enter the Pattern Chain Record mode. The indicator lights and the Record Setup Display appears.



3 Set basic parameters for recording (e.g., Style number/Section, Recording Type, Track, Tempo and so on).

- The Recording Type, Time Signature and Tempo settings are same as in the Song Record mode.
- To record a track, select the desired track from “TMP” (Tempo), “SCN” (Scene), and “PTN” (Pattern). For details about the Pattern Chain track structure, see page 54.

4 Press the [▶] button to start recording and play the pattern as you like.

- When a Pattern track (1 - 16) is selected, you can record style and section changes.
- When the Tempo track is selected, you can record tempo changes.
- When the Scene track is selected, you can record track muting settings.

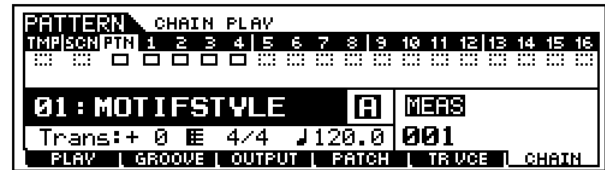
5 Press the [■] button to stop recording.

■ Pattern Chain Editing

The Pattern Chain Edit mode makes it possible to edit the order of the patterns in a chain as well as inserting tempo, and scene/mute event data.

Call up the desired display by following the instructions below and edit the events (Style/Section changes, Scene/Mute changes, and Tempo changes) in each display.

Pattern Chain Edit mode



[PATTERN] button ↑ [EDIT] button ↓

Pattern Chain Edit mode



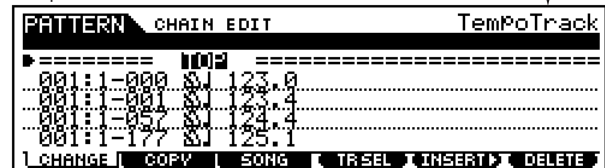
[F4] button ↓

Scene Track Edit



[F4] button ↓

Tempo Track Edit

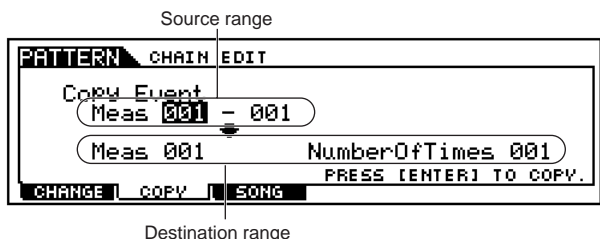


[F4] button

The methods for editing each event in the display above and for inserting/deleting events (by using the [F5]/[F6] buttons) are the same as in the Song Edit mode. See page 190.

● **[F6]-[EDIT]-[F2] Copy**

Pressing the [SF3] button in the Pattern Chain Edit mode calls up the Copy display below, letting you copy all pattern chain events from a specified range of measures (source) to a destination location. Keep in mind that this overwrites any existing events at the destination.



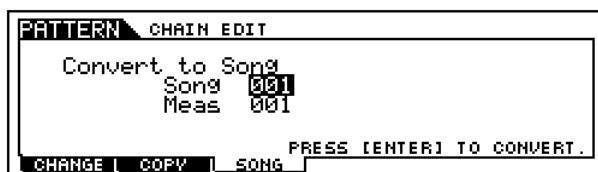
- Source range, Destination range (Measure)
 - Settings 001 ~ 999
- NumberOfTimes
 - Settings 01 ~ 99

CAUTION

This operation overwrites any events already existing at the destination.

● **[F6]-[EDIT]-[F3] Convert**

This function converts the pattern chain data to song data (standard MIDI format) and places the results in the normal song tracks. Pressing the [SF4] button in the Pattern Chain Edit mode calls up the Convert display below. Specify the desired destination song and measure number to which the converted data is to be copied, then press the [SF5] button to execute.



CAUTION

This operation overwrites any data already existing at the destination range.

Pattern Record mode

Quick Start Guide (page 102)

The MOTIF features a wealth of preset phrases in a variety of music genres. It also features comprehensive phrase recording functions, that let you create your own phrases and use them to build your own original patterns.

NOTE For details about recording methods, see page 53 .

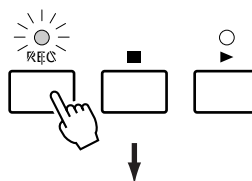
◆ **About the recording track**

When recording patterns, you'll need to specify the track to be recorded — just as is done in Song recording. The operations differ depending on the specific phrase assignments, as described below.

- **If the preset phrase is assigned to the track...**
You cannot record. Even if you specify the track to which the preset phrase is assigned and try to record, an error message will appear.
- **If the user phrase is assigned to the track...**
The data of the user phrase assigned to the specified track is overwritten by recording.
- **If the phrase is not assigned to the track...**
Recording is down to an empty user phrase. The newly created phrase is automatically assigned to the recording track.

◆ **Basic Procedure**

- 1 In the Pattern Play mode, select a pattern (style and section) to be recorded.
- 2 Press the [REC] button to enter the Pattern Record mode. (The indicator lights.) The Pattern Record Setup display shown below appears.



- 3 Set basic parameters for recording (e.g., recording track, type, tempo, and so on).

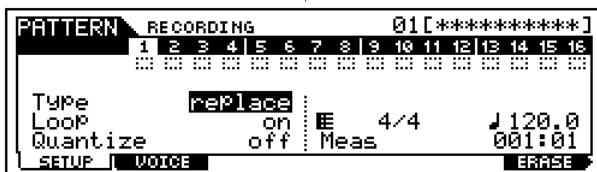
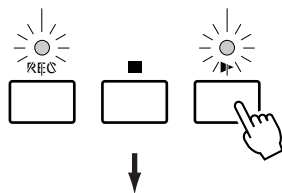
NOTE Please note that the time signature can be set in the Pattern Play display. See page 217.

NOTE The method for selecting the recording track is the same as in Pattern track selection (page 218).

4 Change the display by pressing the [F2] - [F3] buttons and set various parameters for recording.

5 Press the [▶] button to start recording.

- When any of the Realtime recording methods (any setting other than “step”) is selected in step #3, your keyboard playing and controller moves are automatically recorded.
- When “step” is selected in step #3, compose your recording by entering each note individually.



To erase specific notes from the recording, simultaneously hold down the [F6] button and press the note you wish to delete. This is especially convenient when erasing specific instruments in a selected Drum voice.

6 After completing your performance (in Realtime recording) or completing step recording, press the [■] button to stop recording.

7 Press the [▶] button to hear your newly recorded phrase.

8 Save the recorded phrase data to a memory card or a SCSI device connected to the MOTIF.

CAUTION

The recorded (edited) phrase data resides temporarily in DRAM (page 64). Because data contained in DRAM is lost when the power is turned off, you should always store any data residing in DRAM to a memory card or an external SCSI device before turning off the power.

- For detailed instructions on steps #3 - #4, see the following explanations.
- For details on steps #5 - #6, refer to “Quick Start Guide” on page 102.
- For details on step #8, refer to “File mode” on page 266.

NOTE The following explanations apply to MIDI data recording (creating MIDI tracks). For instructions on recording audio data (creating sample tracks), see “Sampling mode” on page 233.

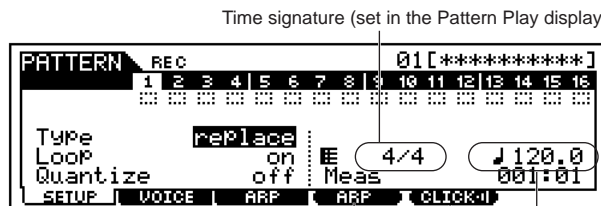
Setting up before recording

The explanations here apply to steps #3 - #4 of the Basic Procedure on page 221, page 222.

[F1] Pattern Record Setup

Basic Structure (page 51)

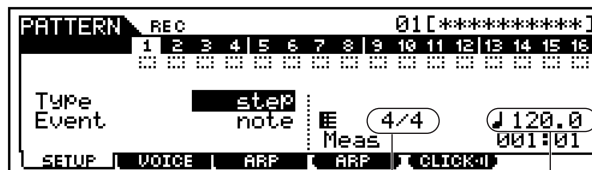
When recording type is set to something other than “step”:



This lets you determine whether the Arpeggio playback data is recorded to the Pattern track or not. (Press the [F4] button.) When **↓** is indicated, the Arpeggio playback data is recorded to the Song track.

This lets you turn the click sound (metronome) on/off for recording. (Press the [F5] button.) When **⏏** is indicated, the click sounds.

When recording type is set to “step”:



Time signature (set in the Pattern Play display) Tempo

Type (Recording type)

Determines the recording method.

- Settings: replace, overdub, step

NOTE Unlike in the Song Record mode, Punch recording is not available for pattern recording.

Loop

Turns loop recording ON or OFF.

When ON, the phrase will play repeatedly during real-time recording. This can be handy when recording drum parts, allowing you to add different instruments on each pass. When OFF recording stops after one pass through the phrase.

- Settings: on, off

• **Quantize**

This convenient feature lets you automatically quantize the notes in real time, as you record. Quantize aligns the timing of note events to the nearest beat. This parameter determines whether real-time Quantize is on or not, and the resolution to which the notes will be aligned.

- ❑ Settings: off, 60 (32nd note), 80 (16th note triplet), 120 (16th note), 160 (8th note triplet), 240 (8th note), 320 (1/4 note triplet), 480 (1/4 note)

• **Event**

This parameter is available when the Recording Type is set to “step.” This lets you specify the event type to be entered.

- ❑ Settings: note, p.bend (pitch bend), CC#000 ~ #119 (Control Change)

• **Tempo**

Determines the Pattern tempo.

- ❑ Settings: 001.0 ~ 300.0

● **[F2] Pattern Record Voice**

From this display you can set voice-related parameters for the selected track. The settings made here affect the tone generator parts whose MIDI receive channels match the MIDI transmit channel of the song track. The voice set here becomes the phrase voice (page 52).



Parameters are the same as in the Song Record mode. See page 188.

● **[F3] Pattern Record Arpeggio**

From this display you can set various Arpeggio-related parameters for the selected track.



Determines whether Arpeggio playback data is recorded to the track or not. (Press the [F4] button.)

Parameters are the same as in the Song Record mode. See page 189.

Pattern Recording

The explanations here apply to steps #5 - #6 of the Basic Procedure on page 222.

■ **Realtime Recording**

See “Quick Start Guide” on page 103.

■ **Step Recording**

If you press the [▶] button in step #5 of the Basic Procedure on page 222, the Event display appears and you can input individual events one by one. The method for inputting events is the same as in Step recording in the Song mode. See pages 183 ~ 186.

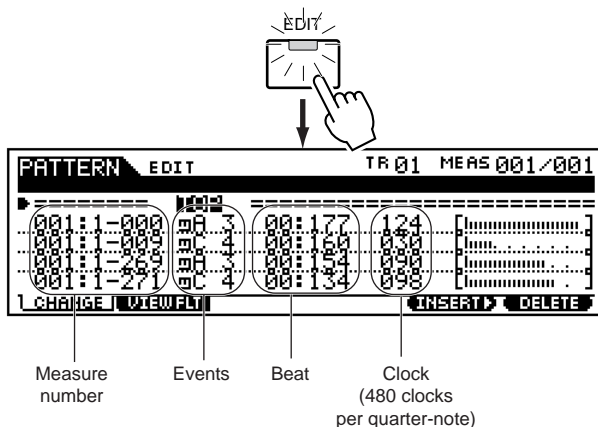
Pattern Edit mode

This mode gives you comprehensive, detailed controls for editing the MIDI events of each phrase of the recorded pattern. MIDI events are messages (such as note on/off, note number, program change number, etc.) that make up the data of a recorded pattern.

◆ Basic Procedure

Basic Operation (page 70)

- 1 In the Pattern Play mode, select a style and phrase to be edited.
- 2 Press the [EDIT] button to enter the Pattern Edit mode. (The indicator lights.) The Pattern Event List display shown below appears.



- 3 Revise, insert or delete the MIDI events as needed. If you find the display too cluttered, you can filter out certain event types with the View Filter. Simply press the [F2] button and select the event types you want to be displayed.
- 4 After completing editing, press the [PATTERN] button to return back to the Pattern Play mode.
- 5 Press the [▶] button to hear your edited data.
- 6 Edit other Phrases as required. Repeat steps #2 through #5 as desired.
- 7 After editing, save your pattern data to a memory card or a SCSI device connected to the MOTIF in the File mode.
 - For detailed instructions on step #3, see the following explanations.
 - For details on step #7, refer to “File mode” on page 266.

MIDI events that can be edited

All MIDI events and parameters (edited in step #3 of the Basic Procedure above) are the same as those in the Song Edit mode. For details, see page 190.

Event Editing/Inserting/Deleting

All event editing operations and parameters (done in step #3 of the Basic Procedure above) are the same as those in the Song Edit mode. For details, see page 190.

Event View Filter

All Event View Filter operations and settings (done in step #3 of the Basic Procedure above) are the same as those in the Song Edit mode. For details, see page 192.

Pattern Job mode

The Pattern Job mode contains a comprehensive set of editing tools and functions you can use to change the sound of your original pattern, as created by the Pattern Patch function or from the Pattern Record mode. It also includes a variety of convenient operations, such as copying or erasing data. Most of these operations can be performed on either an entire track or a selected range of measures in the track.

◆ Basic Procedure

- 1 In the Pattern Play mode, select a style and section you wish to execute the Job on.
- 2 Press the [JOB] button to enter Pattern Job Mode.
- 3 Select the desired Job menu by pressing the appropriate button, [F2] - [F6].
- 4 Use the CURSOR buttons to scroll to the desired Job.
- 5 Press the [ENTER] button to go to the selected Job display.
- 6 Set the relevant Job parameters.
- 7 Press the [ENTER] button. (The display prompts you for confirmation.)
- 8 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Job, press the [DEC/NO] button.

! CAUTION

For Jobs that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

- 9 If you wish to undo the changes made in the steps above, press the [F1] button and (to select Undo/Redo) and use the Undo function.

- 10 Press the [PATTERN] button to exit from the Pattern Job mode and return to the Pattern Play mode.

- For detailed instructions on steps #3 - #9, see the explanations below.

[F1] Undo/Redo

The explanations here apply to step #9 of the Basic Procedure on see below.

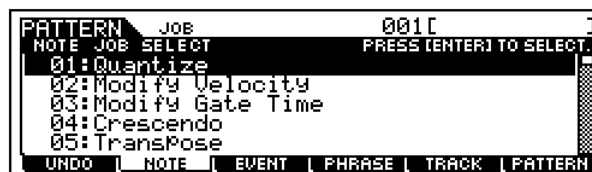
The operations are the same as in the Song Job mode. See page 193.

! CAUTION

Undo/Redo does not work with sample voice operations.

[F2] Note data Job

Press the [F2] button in step #3 of the Basic Procedure (see below), so that the Note data Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure see above.

NOTE The Note data Jobs in the Pattern mode are basically same as in the Song Job mode. However, unlike in the Song Job mode, Pattern Note data Jobs are applied to the phrases (001 - 256) and a selected range in the phrase (measure : beat : clock).

● [F2]-01 Quantize

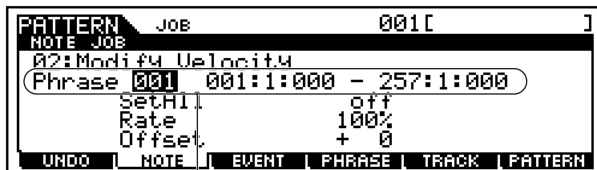


Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

Same as in the Song Job mode. See page 194.

● **[F2]-02 Modify Velocity**

Same as in the Song Job mode. See page 195.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

● **[F2]-03 Modify Gate Time**

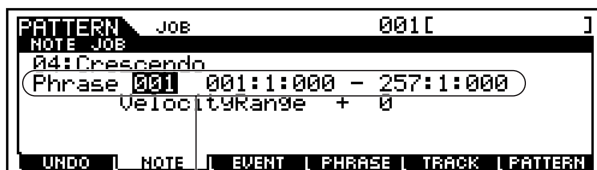
Same as in the Song Job mode. See page 195.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

● **[F2]-04 Crescendo**

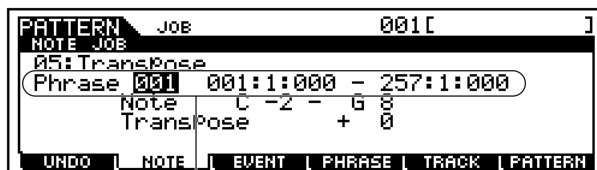
Same as in the Song Job mode. See page 196.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

● **[F2]-05 Transpose**

Same as in the Song Job mode. See page 196.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

● **[F2]-06 Glide**

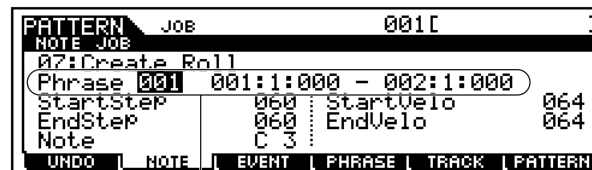
Same as in the Song Job mode. See page 196.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

● **[F2]-07 Create Roll**

Same as in the Song Job mode. See page 196.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

● **[F2]-08 Sort Chord**

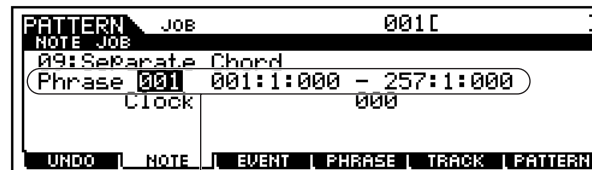
Same as in the Song Job mode. See page 197.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

● **[F2]-09 Separate Chord**

Same as in the Song Job mode. See page 198.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

[F3] Event Job

Press the [F3] button in step #3 of the Basic Procedure on page 225 so that the Event Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure on page 225.

NOTE The Event Jobs in the Pattern mode are basically same as in the Song Job mode. However, unlike in the Song Job mode, Pattern Event Jobs are applied to the phrases (001 - 256) and a selected range in the phrase (measure : beat : clock).

● [F3]-01 Shift Clock

Same as in the Song Job mode. See page 198.

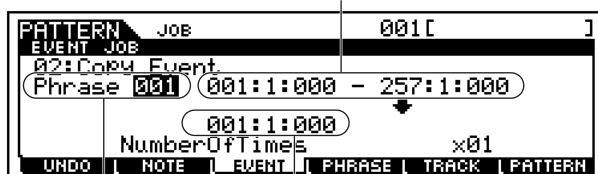


Specify the phrase and the range (in measures/beats/clocks) over which the Job is applied.

● [F3]-02 Copy Event

This job copies all data from a specified source range to a specified destination location.

Set the range (in measures/beats/clocks) from which the data will be copied.



Specify the phrase to which the job is applied. Specify the location to which the data will be copied.

• Number Of Times

Specifies the number of times the data is copied.

☐ Settings 01 ~ 99

⚠ CAUTION

When Copy Event is executed any data already existing at the Destination location will be overwritten.

● [F3]-03 Erase Event

Same as in the Song Job mode. See page 199.



Specify the phrase and the range (in measures/beats/clocks) over which the Job is applied.

NOTE Unlike in the Song Job mode, you cannot select “Tempo,” “Scene Memory,” or “Track Mute” as Event Types.

● [F3]-04 Extract Event

Same as in the Song Job mode. See page 199.

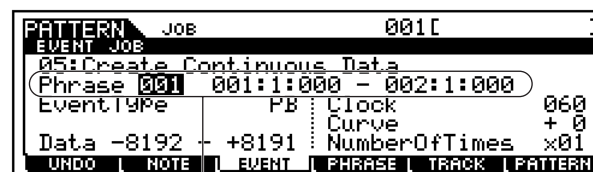
Specify the phrase and the range (in measures/beats/clocks) over which the Job is applied.



Select the destination phrase.

● [F3]-05 Create Continuous Data

Same as in the Song Job mode. See page 199.

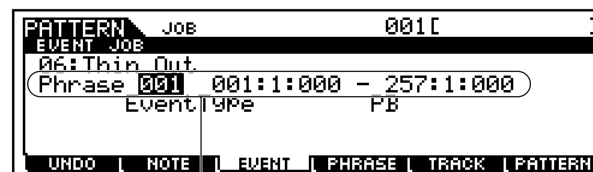


Specify the phrase and the range (in measures/beats/clocks) over which the Job is applied.

NOTE Unlike in the Song Job mode, you cannot select “Tempo” as an Event Type.

● [F3]-06 Thin Out

Same as in the Song Job mode. See page 200.

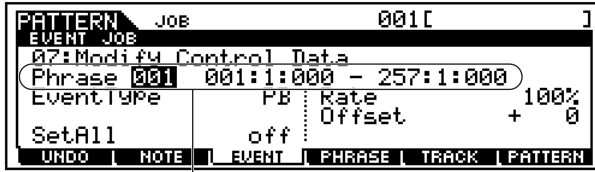


Specify the phrase and the range (in measures/beats/clocks) over which the Job is applied.

NOTE Unlike in the Song Job mode, you cannot select “All” as an Event Type.

● **[F3]-07 Modify Control Data**

Same as in the Song Job mode. See page 200.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

NOTE Unlike in the Song Job mode, you cannot select “Tempo” as an Event Type.

● **[F3]-08 Beat Stretch**

Same as in the Song Job mode. See page 200.



Specify the phrase and the range (in measures/ beats/clocks) over which the Job is applied.

[F4] Phrase Job

Press the [F4] button in step #3 of the Basic Procedure on page 225 so that the Phrase Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure on page 225.

● **[F4]-01 Copy Phrase**

This Job copies a selected phrase to the designated destination phrase.

Specify the destination style and phrase. (Selects the style and phrase to be copied. (Preset phrase also can be selected.)



When this box is checkmarked, sample voices used by the source phrase are copied to the destination style as sample voices, and are assigned to the destination phrase.

CAUTION

Any previous data in the copy destination will be overwritten.

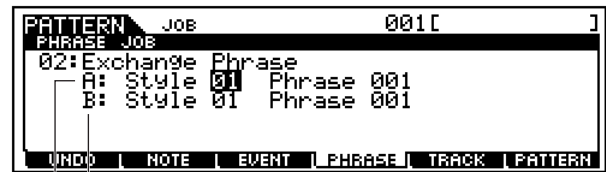
CAUTION

Undo/Redo (page 225) cannot be used to undo/redo a sample voice copy operation.

NOTE When there is no memory available in the destination style for sample voice data, an error message will appear on the display and the sample voice data will not be copied. If this occurs, use Sample Job 02 “Delete” to delete any unused sample voices, then try again.

● **[F4]-02 Exchange Phrase**

This Job exchanges or “swaps” the contents of two specified phrases.

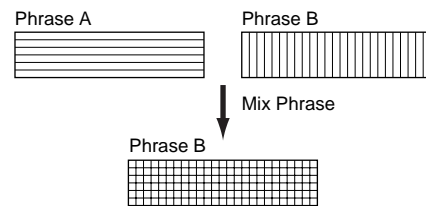


Target phrases for the Exchange operation

NOTE If this Job is applied to phrases which use sample voices, the sample voices will not be exchanged.

● **[F4]-03 Mix Phrase**

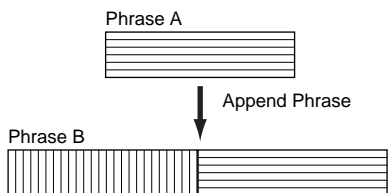
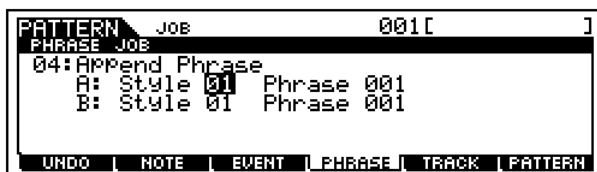
This Job mixes all data from two selected user phrases (“A” and “B”), and places the result in phrase B. One useful application for this would be to free up the data in phrase A, letting you record new data to it.



NOTE Keep in mind that applying this Job to phrases with sample voices does not mix the sample voices.

● [F4]-04 Append Phrase

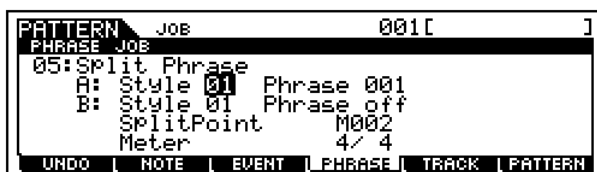
This Job appends one phrase to the end of another to create one longer phrase.



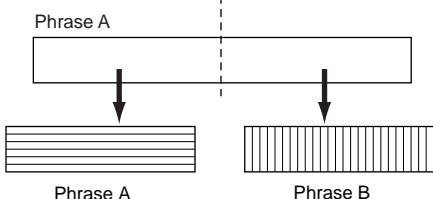
NOTE If this job is applied to phrases which use sample voices, the sample voices will not be appended.

● [F4]-05 Split Phrase

This Job splits a selected phrase into two separate phrases.



Phrase A is divided at the Split Point (the measure number set in the above display).



NOTE When either Style or Phrase is set to “off”, the split Phrase B data is erased.

● Meter

Sets the meter of phrase B after the split operation.

- Settings 1/16 ~ 16/16, 1/8 ~ 16/8, 1/4 ~ 16/4

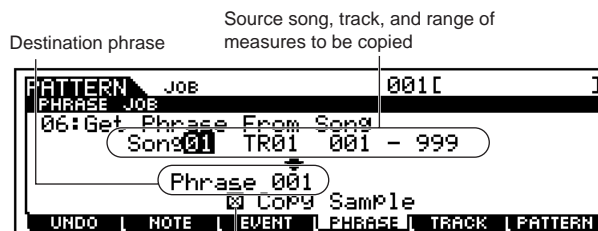
! CAUTION

The job overwrites any data already existing in destination phrase B.

NOTE If this job is applied to phrases which use sample voices, the sample voices will not be split.

● [F4]-06 Get Phrase From Song

This Job copies a segment of sequence-track data from a song into the designated destination phrase.



When this box is checked, sample voices used by the source track are copied to the destination style as sample voices, and are assigned to destination phrase. This parameter has no effect when no sample voice is used by the source track.

! CAUTION

The job overwrites any data already existing in the destination phrase.

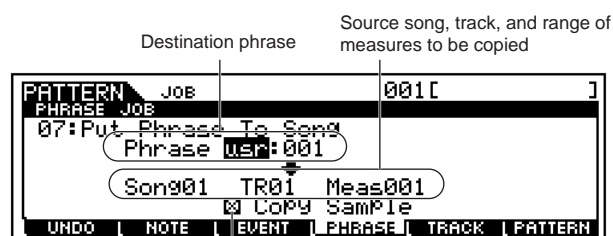
! CAUTION

Undo/Redo (page 225) cannot be used to undo/redo a sample voice copy operation.

NOTE When there is no memory available in the destination style for sample voice data, an error message will appear on the display and the sample voice data will not be copied. If this occurs, use Sample Job 02 “Delete” to delete any unused samples, then try again.

● [F4]-07 Put Phrase To Song

This Job copies a selected user phrase into a specified area of a selected song.



When this box is checked, sample voices used by the source track are copied to the destination style as sample voices, and are assigned to destination phrase. This parameter has no effect when no sample voice is used by the source track.

! CAUTION

The job overwrites any data already existing in the destination track.

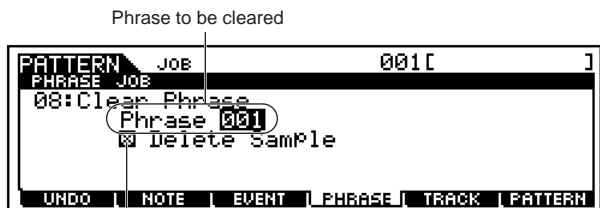
! CAUTION

Undo/Redo (page 225) cannot be used to undo/redo a sample voice copy operation.

NOTE When there is no memory available in the destination song for sample voice data, an error message will appear on the display and the sample voice data will not be copied. If this occurs, use Sample Job “Delete” to delete any unused samples, then try again.

● **[F4]-08 Clear Phrase**

This Job deletes all data from the selected phrase.



When this box is checkmarked, sample data assigned to the selected phrase will be deleted. This parameter has no effect when no sample voice is used by the selected phrase.

! CAUTION

Undo/Redo (page 225) cannot be used to undo/redo a Delete Sample operation.

● **[F4]-09 Phrase Name**

Basic Operation (page 75)

This Job lets you assign a name (of up to eight characters) to the selected phrase.



See “Basic Operation” on page 75.

[F5] Track Job

Press the [F5] button in step #3 of the Basic Procedure on page 225 so that the Track Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure on page 225.

● **[F5]-01 Copy Track**

This Job copies all data of the selected type from specified source track to specified destination track.

Source style, action, and track



Types of data to be copied

Destination style, section, and track

Same as in the Song Job mode. See page 202.

● **[F5]-02 Exchange Track**

This Job exchanges or “swaps” the specified type of data between two specified tracks in the current style and section.

Target tracks for the Exchange operation



Types of data to be exchanged

Same as in the Song Job mode. See page 202.

● **[F5]-03 Clear Track**

This Job deletes all data of the selected type from the selected pattern track.

Section and track from which data is to be cleared



Types of data to be cleared

Same as in the Song Job mode. See page 202.

● **[F5]-04 Normalize Play Effect**

This job rewrites the data in the selected track so that it incorporates the current Grid Groove settings.



Same as in the Song Job mode. See page 203.

● **[F5]-05 Divide Drum Track**

Separates the note events in a drum performance assigned to a specified track, and places the notes corresponding to different drum instruments in separate tracks (tracks 1 through 8). One useful application for this would be to use Quantize (page 225) and Shift Clock (page 227) to independently adjust the timing of different drum parts in the rhythm, to tighten up the timing and yet create a more natural sounding feel.



Same as in the Song Job mode. See page 203.

[F6] Pattern Job

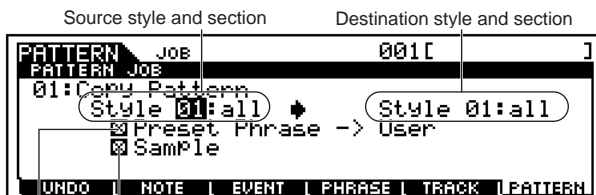
Press the [F6] button in step #3 of the Basic Procedure on page 225 so that the Pattern Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



The following explanations apply to step #6 of the Basic Procedure on page 225.

● **[F6]-01 Copy Pattern**

This job copies all data from a selected source pattern to a selected destination pattern.



When this box is checkmarked, sample voices (if included in the source style) are copied to the destination style.

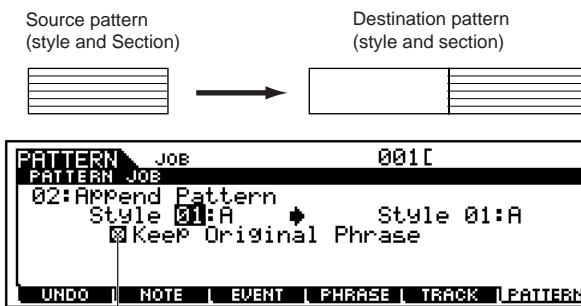
When this box is checkmarked, Preset Phrases (if included in the source style) are copied to the User Phrase.



CAUTION
Undo/Redo (page 225) cannot be used to undo/redo a sample voice copy operation.

● **[F6]-02 Append Pattern**

Appends one pattern to the end of another to create one longer pattern with all 16 tracks.



When this box is checkmarked, the original Destination pattern data is retained in memory, along with the new appended pattern data. If the box is not checkmarked, the original Destination pattern is erased and replaced with the newly created data.

When this box is checkmarked, Sample Voices (if included in the source style) are copied to the Destination Style.

NOTE When the KEEP ORIGINAL PHRASE checkbox is checked, this job requires twice the number of empty user phrases as the number of tracks containing data in which to store the appended phrase data. If the required phrases are unavailable the alert message will appear and the job will be aborted. If this occurs use the Clear Phrase Job (page 230) to delete unused phrases and try again.

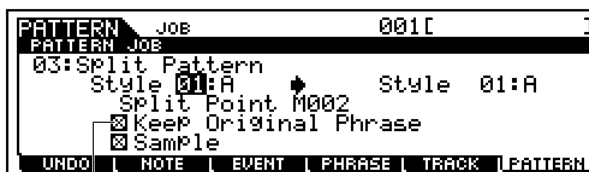
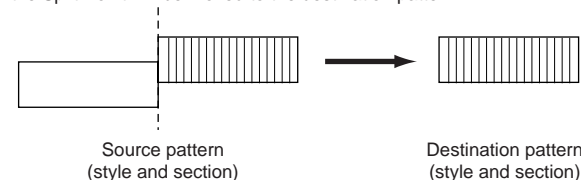
NOTE If this job is applied to patterns which use sample voices, the sample voices will not be appended.

NOTE If the pattern length becomes greater than 256 measures as a result of the Append Pattern Job, an error message will be displayed and the Job will be aborted.

● **[F6]-03 Split Pattern**

This Job splits a selected pattern (all 16 tracks data) into two patterns.

After the Split Pattern operation, the part of the pattern before the specified Split Point will remain, and the part following the Split Point will be moved to the destination pattern.



When this box is checkmarked, the original Source pattern data is retained in memory, along with the new appended pattern data. If the box is not checkmarked, the split portion of the original Source pattern is erased and moved to the Destination pattern.

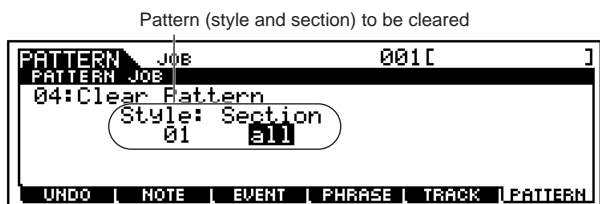
CAUTION

The job overwrites any data already existing in the destination pattern.

NOTE When the KEEP ORIGINAL PHRASE checkbox is checked, this job requires twice the number of empty user phrases as the number of tracks containing data in which to store the appended phrase data. If the required phrases are unavailable the alert message will appear and the job will be aborted. If this occurs use the Clear Phrase Job (page 230) to delete unused phrases and try again.

● **[F6]-04 Clear Pattern**

This job deletes all data from the selected pattern, or from all patterns.



● **[F6]-05 Style Name**

Basic Operation (page 75)

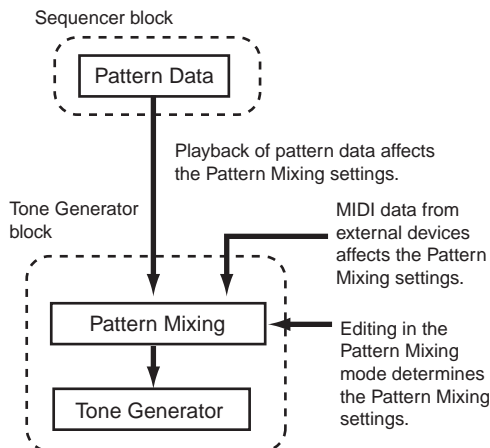
This Job lets you assign a name to the selected style.



See “Basic Operation” on page 75.

Pattern Mixing mode

In this mode, you can set up and save mixing data for your patterns, and set various parameters for the tone generator parts — including the desired voice, as well as its level, pan, EQ, effect and other settings. How the Pattern Mixing mode affects the tone generator parts, and how it is affected by other elements, is made clear by the following diagram.



Pattern Mixing parameters are not actually part of the pattern data, but rather are settings for the tone generator, as it is played back by the pattern data. As such, the Pattern Mixing parameter settings are not recorded to the pattern tracks. Even though the modes are different, the actual Pattern Mixing operations and parameters are the same as those of the Song Mixing mode. See page 205.

Sampling Mode

Basic Structure (page 58)

Function Tree

.....

This section is devoted to the Sampling mode. To see how the Sampling mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30. The following detailed chart shows all of the display menus and parameter groups of the Sampling modes — giving you a quick, easy-to-understand overview of the sampling-related functions of the MOTIF. Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

[SAMPLE]		
	[INFORMATION] SAMPLE	P. 276
	[SAMPLE] SAMPLE REC SETUP	P. 235
	[F1] DESTINATION	P. 235
	[F2] SOURCE	P. 236
	[F6] SAMPLE RECORD	P. 234
	[F6] SAMPLE RECORDING	P. 234
	RECORDING (Slice+Seq)	P. 236
	[AFTER COMPLETING RECORDING]	P. 237
	[F1] TRIM	P. 237
	[INFO] TRIM INFORMATION	P. 276
	[SF1] AUDITION	P. 238
	[SF2] START-LOOP	P. 238
	[SF3] GET TEMPO	P. 238
	[SF4] EXTRACT	P. 238
	[F5] ZOOM OUT	P. 238
	[F6] ZOOM IN	P. 238
	[F2] SLICE	P. 238
	RECORDING (Sample, Sample+Note)	P. 236
	[F6] SAMPLE REC SETUP	P. 237
	[EDIT] SAMPLE EDIT	P. 240
	[F1] KEYBANK SELECT	P. 240
	[F2] TRIM	P. 241
	[INFO] TRIM INFO	P. 241
	[SF1] AUDITION	P. 241
	[SF2] START-LOOP	P. 241
	[SF3] GET TEMPO	P. 241
	[SF4] EXTRACT	P. 241
	[F5] ZOOM OUT	P. 241
	[F6] ZOOM IN	P. 241
	[F3] PARAMETER	P. 241
	[F4] RANGE	P. 241
	[JOB] SAMPLE JOB	P. 241
	[F1] KEYBANK JOB LIST	P. 242
	COPY	P. 242
	DELETE	P. 242
	EXTRACT	P. 243
	MOVE	P. 243
	NORMALIZE	P. 243
	TIME-STRETCH	P. 244
	CONVERT PITCH	P. 244
	FADE IN/OUT	P. 245
	CONVERT FREQUENCY	P. 245
	STEREO TO MONO	P. 245
	LOOP-REMIX	P. 246
	SLICE	P. 246
	[F2] WAVEFORM JOB LIST	P. 247
	COPY	P. 247
	DELETE	P. 247
	TRANSCOPE	P. 247
	NAME	P. 247
	[F3] OTHER JOB LIST	P. 247
	CLEAN UP MEMORY	P. 247
	OPTIMIZE MEMORY	P. 248
	DELETE ALL	P. 248
	CONVERT TO DRUM VOICE (User Drum Voice Number, Name)	P. 248

Sampling Record mode

Basic Operation (page 58)

In this mode, you can record sounds to the MOTIF (for example, your voice, a guitar, or sounds from a CD), edit them, and use them to create special Sample voices you can play from the keyboard. Or, if you enter this mode from the Song or Pattern mode, the sounds you record can be assigned to the tracks and played back automatically with the song or pattern. What's more, by using the Resampling function, you can create new samples from your edits, or make samples from the sounds of the MOTIF itself.

◆ Data created by Sampling

Regardless of the mode, the raw Sampled data is the same, of course. However, various parameters are different, depending on the particular mode or settings. See page 59 for details on the kinds of data that are created in the Sampling function.

◆ Basic Procedure

1 To use a microphone or external audio source, make all the appropriate connections. For details, see "Analog input" and "Digital input" on page 23.

NOTE If you want to use the sound of the MOTIF as a recording source (with the Resampling function), step #1 above is unnecessary.

2 Depending on how you want to use your created sample, there are two ways you should proceed:

- **To create a normal (User) voice** —
Enter the Voice or Performance mode. To use the sound of the MOTIF as a recording source (with the Resampling function), select the desired voice or performance.
- **To create a Sample track in a song or pattern** —
Enter the Song or Pattern mode and select the desired song or pattern.

3 Press the [INTEGRATED SAMPLING] button to call up the Setup display in the Sampling Record mode. (The indicator lights.)

NOTE Even when you enter the Sampling Record mode, the indicator of the previous mode's button remains lit, allowing you to confirm which mode you entered from.

4 Press the [F1] button and set the destination-related parameters for the sample. (These determine the memory location to which the sample will be recorded and assigned.)

NOTE When entering the Sampling Record mode from the Voice/Performance mode, the recorded sample is automatically stored to the Waveform and User voice set in this display.

NOTE When entering the Sampling Record mode from the Song/Pattern mode, the recorded sample is automatically stored to the track set in this display as a Sample voice.

5 Press the [F2] button and set the source-related parameters for the audio input.

6 Press the [F6] button to go to the Sampling standby display and set the Trigger mode in this display.

7 Press the [F6] button again to start sampling, and play the input source at the proper time. How and when you should play the source depends on the settings made in step #5 above (and described on page 236), and the process you use (described briefly below).

• **When the Source is set to "A/D" or "digital":**

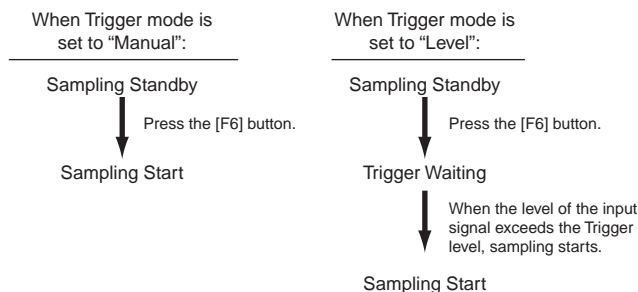
Any of the following audio input jacks/terminals on the MOTIF can be used for sample recording:

- A/D INPUT jacks
- mLAN terminals (when the optional mLAN8E has been installed)
- DIGITAL IN jack (when the optional AIEB2 has been installed)
- OPTICAL IN jack (when the optional AIEB2 has been installed)

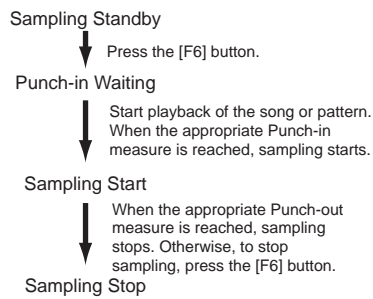
• **When the Source is set to "resample":**

The sound generated by the MOTIF itself (Song/Pattern playback, keyboard performance) can be recorded as a sample.

How sampling actually starts depends on the Trigger mode setting made in step #6 above (and described on page 237), and the process you use (described briefly below).



When Trigger mode is set to Meas :



8 Stop the Sampling following the instructions above and stop the recording source playback.

9 Set the Slice parameters as needed— if you've entered the Sampling Record mode from the Song/Pattern mode, and you've set the Sampling type to "slice + seq" in step #5 above.

10 Save the recorded sample to the memory card/SCSI storage device as a Waveform, User voice, or Sample voice, as required.

⚠ CAUTION

The recorded (edited) phrase data resides temporarily in DRAM (page 64). Because data contained in DRAM is lost when the power is turned off, you should always save any data residing in DRAM to a memory card or an external SCSI device before turning off the power.

- The operations corresponding to steps #4 - 9 are covered in the following explanations.
- For details on step #10, refer to "File mode" on page 264.

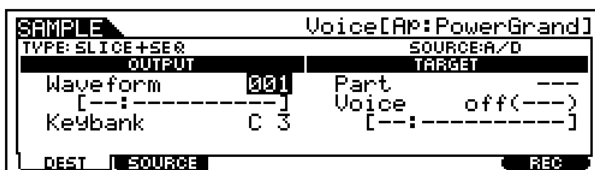
Sampling Setup

The explanations here apply to steps #4 and #5 of the Basic Procedure on page 234.

■ [F1] Sampling Destination settings

The explanations here apply to step #4 of the Basic Procedure on page 234.

● When entering the Sampling mode from the Voice/Performance mode



NOTE The MOTIF can transfer wave data to and from the computer (with TWE software) only when this display is called up.

● Waveform

Determines the Waveform number to which the recorded sample is assigned.

□ Settings 001 ~ 256

● Keybank

Determines the note number located at the center of the Key Bank.

□ Settings C-2 ~ G8

NOTE For details about the Waveform and Key Bank, see page 60.

● Part

Determines the performance part to which the recorded sample is assigned. This is available only when entering the Sampling mode from the Performance mode.

□ Settings off, 1 ~ 4

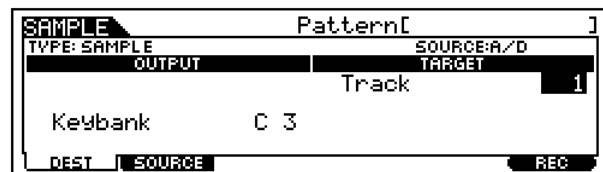
● Voice

The recorded sample can be stored as a User Normal voice. This parameter determines a User Normal voice number to which the recorded sample is assigned.

□ Settings off, 1 ~ 128

NOTE When this is set to "off," only a Waveform is created; the sample is not stored as a User voice. The sample is stored to the smallest numbered Waveform available. If you wish to hear the new sample and later assign it to a User voice, go to the Element Oscillator display ([F1]-[SF1]) in the Voice Edit mode and search the User Waveforms to find the sample. For details, see page 135.

● When entering the Sampling mode from the Song/Pattern mode



● Track

Determines the track number to which the recorded sample is assigned.

□ Settings 1 ~ 16

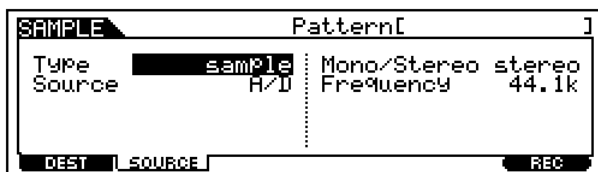
● Keybank

Determines the note number located at the center of the Key Bank. This parameter is available only when the Sampling type is set to "sample" or "sample + note" (in the Type parameter below).

□ Settings C-2 ~ G8

■ [F2] Sampling Source settings

The explanations here apply to step #5 of the Basic Procedure on page 234.



• Type

Determines the Sampling type. When entering the Sampling mode from the Song/Pattern mode, the data created by the Sampling varies depending on this setting. Keep in mind that this parameter is fixed to “sample” when entering the Sampling mode from the Voice/Performance mode.

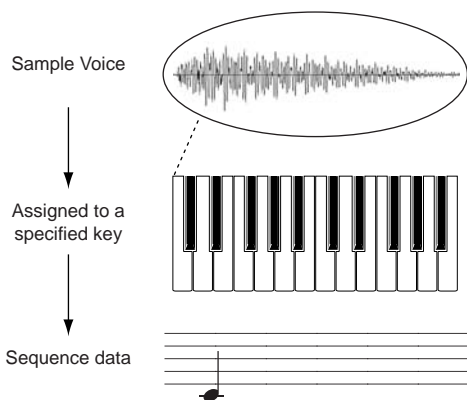
Settings sample, sample + note, slice + seq

sample

Only the sample (wave) data is created.

sample + note

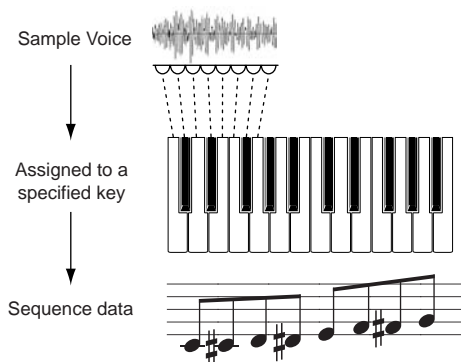
In addition to the sample data, the appropriate note data for playing the sample is created and recorded to the specified track.



slice + seq

The recorded sample is automatically divided into “slices,” and these are assigned to successive notes on the keyboard. These notes are then automatically arranged in sequence data (to the specified track) for playback.

This is especially useful for rhythm samples. For example, if you’ve recorded a drum part, each beat of the rhythm is converted to a separate slice and a separate note, and the notes are made into a sequence. In this way, playing back the sequence data plays the entire rhythm sample. The advantage to this is that you can then adjust the tempo of the sequencer over a wide range, and still keep the rhythm perfectly in sync with the other tracks.



NOTE Detailed settings (meter, measure number etc.) are specified in the Slice display after sampling.

• Source

Determines the recording source.

Settings

A/D

Analog audio from the A/D INPUT jacks or mLAN terminal (with optional mLAN8E) is recognized as the recording source.

resample

The signal (already recorded sample or preset wave) output from the MOTIF’s OUTPUT jacks is recognized as a recording source and “resampled”.

Digital

Digital audio from the DIGITAL IN terminal or OPTICAL IN terminal (with optional AIEB2) is recognized as the recording source.

• Mono/Stereo

Determines whether new samples will be recorded as stereo or mono samples.

Settings

monoL

The L-channel signal will be recorded as a mono sample.

monoR

The R-channel signal will be recorded as a mono sample.

monoL+R

The L-channel and R-channel signals will be mixed and recorded as a mono sample.

stereo

A stereo sample will be recorded.

• Frequency (Sampling Frequency)

Specifies the sampling frequency. The rate at which digital readings are taken is referred to as the sampling frequency. Higher sampling frequencies result in higher quality sound.

Settings

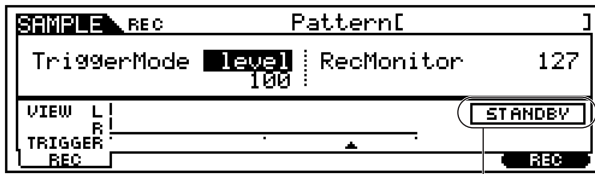
44.1k (44.1 kHz), 22kLo (22.05 kHz Lo-Fi), 11kLo (11.025 kHz Lo-Fi), 5kLo (5.5125 kHz Lo-Fi)

NOTE When the Source is set to A/D and the mLAN terminal is used as an analog input, the Frequency is fixed to 44.1 kHz and cannot be changed.

NOTE At settings other than 44.1 kHz, the sound monitored during recording may be different from the recorded sound, depending on the source signal.

Sampling Standby

The explanations here apply to step #6 of the Basic Procedure on page 234.



Indicates the MOTIF is in the Sampling Standby mode.

• TriggerMode

Specifies the method by which sampling will be triggered.

Settings

level

Sampling will begin as soon as an input signal exceeding the specified trigger level is received after the [F6] (START) button is pressed.

When this is selected, you need also set the Trigger Level (1 ~ 127).

meas

This is available only when entering the Sampling mode from the Song/Pattern mode and should be set together with the Punch-in/out measure.

After the [F6] (START) button is pressed, sampling will begin at the specified punch-in measure, and end at the specified punch-out measure. Sampling will also stop when the Song/Pattern is stopped by pressing the [■] button.

manual

Sampling will begin as soon as the [F6] (START) button is pressed, regardless of the Song/Pattern playback status.

• RecMonitor (Recording Monitor)

Determines the output level of the monitor for the input signal.

This monitor signal is output from the PHONES jack or the OUTPUT R and L/MONO jacks. This has no effect on the recording level.

Settings 0 ~ 127

• RecGain (Recording Gain)

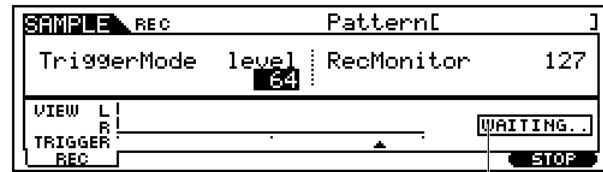
Determines the recording gain when resampling.

This parameter is available only when the Source is set to “resample.”

Settings -12dB ~ +12dB

Trigger Waiting

The following display applies to step #7 of the Basic Procedure on page 234. The following display is available when the Trigger mode is set to “level.” In this case, sample recording is on standby, waiting for an input signal that exceeds the Trigger level.

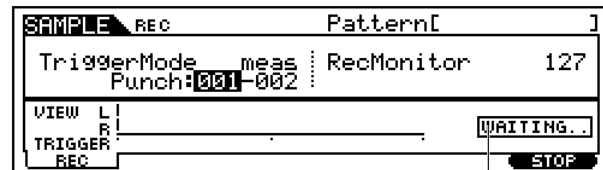


Indicates that sample recording is waiting for a signal of an appropriate level.

Punch-in Waiting

The following display applies to step #7 of the Basic Procedure on page 234.

The following display is available when entering the Sampling mode from the Song/Pattern mode and when the Trigger mode is set to “meas.” In this case, sample recording is on standby, waiting for song/pattern playback to reach the specified Punch-in measure.



Indicates that sample recording is waiting for a signal of an appropriate level.

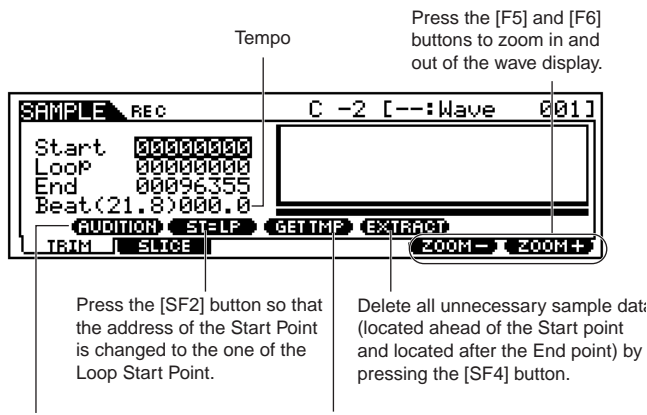
Slice setting after sampling

The explanations here apply to step #9 of the Basic Procedure on page 235.

If you've entered the Sampling Record mode for the Song or Pattern mode and you've set the sampling type to “slice + seq,” you should set the following Slice-related parameters.

■ [F1] Trim

The trim function makes it possible to specify the beginning and end points to be played back within an entire sample. You can delete all unnecessary sample data (located ahead of the Start point and located after the End point) by pressing the [SF5] button (Extract function). This function is especially useful in creating drum loops, since it helps you isolate only the beats you need for your loop. You can also specify the tempo for the range of the looped playback to determine its beat.



Press the [SF2] button so that the address of the Start Point is changed to the one of the Loop Start Point.

Press the [SF3] button to calculate the tempo/beat when the Sample data playback of the range from the Loop Start Point to the End Point is treated as one measure. The result of the calculation appears at the left in this display.

• **Start (Start Point)**

Determines the Start point for the sample playback.

• **Loop (Loop Start Point)**

Determines the Top point of the loop playback (the point where the loop begins) within the range of the entire sample.

• **End (End Point)**

Determines the End point of the loop playback within the range of the entire sample.

• **Beat**

The Beat of the range from the Loop Start Point to the End Point is automatically displayed according to the Tempo (below). This is displayed only and cannot be changed. If you use the GET TMP (Get Tempo) function by pressing the [SF4] button, this Beat value is automatically changed to match the extracted tempo.

• **(Tempo)**

Execute the GET TMP (Get Tempo) operation by pressing the [SF4] button to calculate the tempo when the Sample data playback of the range from the Loop Start Point to the End Point is treated as one measure. The result of the calculation appears here.

You can also change the tempo by using the [INC/YES] and [DEC/NO] buttons, or the data dial.

■ **[F2] Slice**

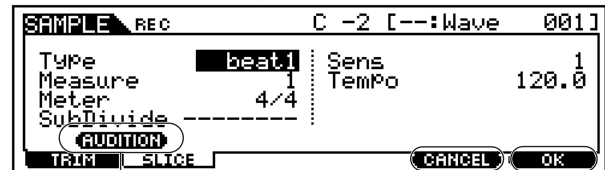
This powerful feature lets you automatically divide the recorded sample into separate “slices.” These slices are then assigned to successive notes and arranged as sequence data. This effectively lets you recreate the original sample by playing back its slices in order, in any tempo — perfect for matching samples of different original tempos. This is also useful for melodic samples, such as bass parts, since it lets you play back the sample at any tempo without changing the overall pitch.

[NOTE] It is necessary to accurately adjust the length of the sample before executing the slice operation. Use

the [SF1] (AUDITION) button in the Trim display to loop the sample and precisely set the Start and End points as required.



Press the [ENTER] button. (The display prompts you for confirmation.) Press the [INC/YES] button to execute the Slice.



You can hear and confirm the sliced samples by pressing the [SF1] button.

Press the [F5] button to go back to the Sampling Setup display without storing the result.

Press the [F6] button to store the result of the Slice operation and go back to the Sampling Setup display.

• **Type (Slice Type)**

Specifies how the sample is sliced, and to some extent determines the resulting sound quality. Select the type that best suits the original phrase.

Settings

beat1 ~ 3

This slice type is suited for percussive phrases such as drums or bass with a fast attack and short decay. Three variations are provided.

phrase1 ~ 4

Ideal for phrases containing cymbals or other instruments with a long decay. Four variations are provided.

quick

Regardless of the phrase content, the sample is divided at the specified note sub-divisions. The number of slices per measure is calculated by multiplying the top number of the Meter (time signature) parameter by the bottom number of the SubDivide parameter.

[NOTE] For helpful hints on getting the Slice Type parameter to work for different samples, see “Tips for using the Slice Types” on page 239.

• **Measure**

Determines the number of measures in the sample to be sliced.

When the slice operation is executed, sequence data corresponding to the specified number of measures is created. The sequence data is created from the beginning of the current measure at the point at which sampling is started.

Settings 1 ~ 8

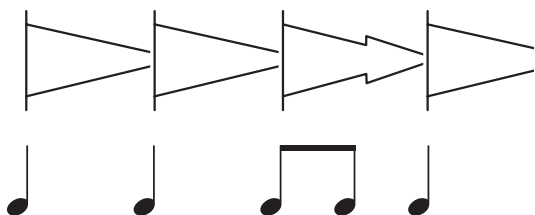
• **Meter**

Specifies the meter (time signature) of the sample. The setting here is the basic slice unit.

Settings 1/16 ~ 16/16, 1/8 ~ 16/8, 1/4 ~ 8/4

● SubDivide

The Meter parameter sets the basic slice unit, and SubDivide specifies even finer resolution for phrases containing regions with shorter notes. For the following phrase, for example, the Meter should be set to 4/4 and SubDivide to 1/2.



□ Settings

When Meter is set to 1 ~ 8/4:

quarter note (1/1), 8th note (1/2), 4th note triplet (1/3), 16th note (1/4), 8th note triplet (1/6), 16th note 1/8), 32nd note triplet (1/12)

When Meter is set to 1 ~ 16/8:

8th note (1/1), 16th note (1/2), 8th note triplet (1/3), 32nd note 1/4), 16th note triplet (1/6)

When Meter is set to 1 ~ 16/16:

16th note (1/1), 32nd note 1/2), 16th note triplet (1/3)

NOTE This parameter has no effect when the Slice Type parameter is set to beat 1 ~ 2.

NOTE The maximum slice resolution for stereo samples is 64 slices, and for mono samples 128 slices.

● Sens (Envelope Sensitivity)

Further adjusts the sub-divisions specified by the SubDivide parameter. Higher values result in higher resolution, allowing even finer notes and smaller sounds to be detected and sliced.

Use the Audition function (press [SF1]) to hear the results, and if you're not satisfied with them, change the setting and try again.

□ Settings 1 ~ 5

NOTE This parameter has no effect when the "quick" slice type is selected.

◆ Tips for using the Slice Types

● Slicing percussive phrases having short decays

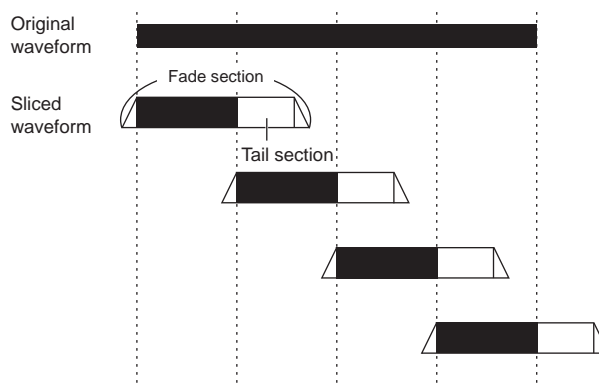
- First, try slicing using "beat1."
- If the result has a weak attack or the release portions of the phrase seem to overlap, try again using "beat2." Try adjusting the envelope sensitivity for finer control.
- If after using "beat1" the attack portions overlap or the overall rhythmic feel is degraded, try again using "beat3." Use the SubDivide parameter to adjust the slice resolution, and make final adjustments with the Envelope Sensitivity parameter.

● Slicing phrases having long decays

- First, try slicing using "phrase1."
- If the result has a weak attack or the release portions of the phrase seem to overlap, try again using "phrase2." Use the SubDivide parameter to adjust the slice resolution, and make final adjustments with the Envelope Sensitivity parameter.
- If after using "phrase1" the points between the slices sounds rough and the overall feel is choppy, try again using "phrase3" and set SubDivide to a finer resolution. Make final adjustments with the Envelope Sensitivity parameter. The "phrase3" setting is generally best for sustained strings or brass type sounds with no vibrato — in other words, the pitch remains constant. It can also produce echo-like effects when applied to percussive phrases with short decay.
- If after using "phrase1" the points between the slices sounds rough and the overall feel is choppy, try again using "phrase4" and set SubDivide to a finer resolution. Make final adjustments with the Envelope Sensitivity parameter. The "phrase4" setting is generally best for sustained strings or brass type sounds with vibrato, as well as vocal phrases.

◆ Wave Memory Required for Slice Operations

Individual wave data slices created through slice operations require approximately 1.5 times the original memory because a tail section is automatically added and fade-in and fade-out sections are automatically created at the beginning and end of the wave data. This helps to maintain maximum sound quality when the BPM is increased, and results in smoother connections between slices (no tail section is created when the QUICK slice type is selected).



A memory work area is required for the synthesis calculations carried out for each slice operation, as well as sufficient memory to hold the completed waveforms. When the sampling frequency is 44.1 kHz, the approximate amount of memory (expressed in kilobytes) required for each slice type is listed below.

- BEAT1 : Original wave size X N + (0.3 X number of slices)
- BEAT2 : Original wave size X N + (0.2 X number of slices)
- BEAT3 : Original wave size X N + (0.3 X number of slices)
- PHRASE1 : Original wave size X N + (5.8 X number of slices)
- PHRASE2 : Original wave size X N + (1.4 X number of slices)
- PHRASE3 : Original wave size X N + (0.4 X number of slices)
- PHRASE4 : Original wave size X N + (1.4 X number of slices)
- QUICK : Original wave size X 3 + (0.7 X number of slices)

For monaural samples N = 5.5, and for stereo samples N = 8. Also, the number of slices is doubled for stereo samples.

With the memory expanded to the maximum 64 megabytes, for example, if the entire memory is empty and a 44.1 kHz sample is sliced to 32 slices, the longest possible sampling time will be

approximately:

BEAT1 ~ 3, PHRASE1 ~ 4: approx. 138 seconds (mono), 47 seconds (stereo.) QUICK: approx. 253 seconds (mono), 126 seconds (stereo).

Sampling Edit mode

Basic Structure (page 59)

This mode gives you a variety of sample editing tools, with which you can change the samples you've recorded in the Sampling Record mode, and customize them for your applications as needed.

◆ Editing Stereo Samples

For samples that have been recorded in stereo (with Stereo Sampling), both the left and right waves of the sample are edited together by the MOTIF. In the actual process, any edits made to the left channel wave are duplicated exactly in the right channel. The exception to this, of course, is Pan — since the sample already is in stereo.

◆ Basic Procedure

1 Press the [INTEGRATED SAMPLING] button to enter the Sampling mode. (The indicator lights.)

NOTE Unlike in the Sampling Record mode, all parameters and functions of the Sampling Edit mode are the same, no matter which mode was previously selected.

NOTE All Sampling Edit operations apply to the Waveform (actual sample), not the voice.

2 Press the [EDIT] button to enter the Sampling Edit mode. (The indicator lights.)

3 Select the desired sample for editing from the Key Bank display. (Press the [F1] button.)

4 Select the menu you wish to edit by pressing the [F2] - [F6] buttons.

5 Edit parameters for the selected sample.

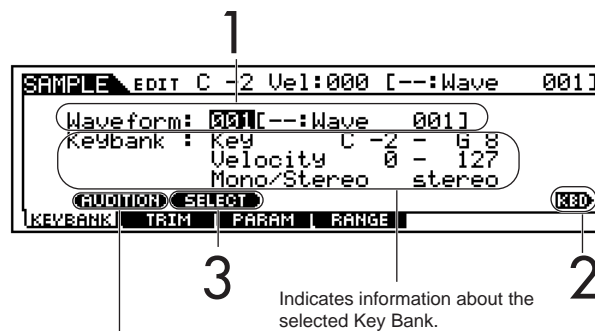
6 Press the [EXIT] button to exit from the Sampling Edit mode.

- The operations corresponding to steps #3 - 4 are covered in the following explanations.

Sample selection and Audition function

The explanations here apply to step #3 of the Basic Procedure see above.

For details about the relationship between the parameters below, see page 241.



You can hear the selected sample by pressing the [SF1] button. (Audition function)

1 Select a Waveform that contains a Sample you wish to edit. Move the cursor to the Waveform number and select the desired number by using the [INC/YES] button, [DEC/NO] button, or the data dial.

2 To select the desired Key Bank, simultaneously hold down the [INFORMATION] button and press the appropriate key on the keyboard. The information about the selected Key Bank appears on the display and the sample assigned to the Key Bank is called up.

- 3** Press the [SF2] button to call up the Samples assigned to the selected Key Bank in order.

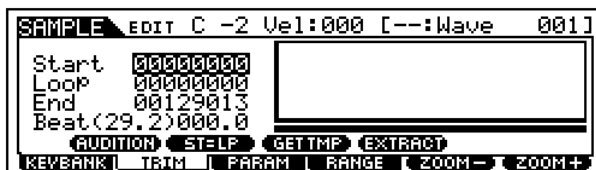
NOTE Step #3 above as well as the Audition function can be used with any of the displays called up via the [F2] - [F4] buttons.

Sample Edit

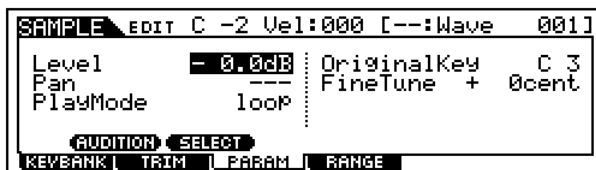
The explanations here apply to step #5 of the Basic Procedure on page 59.

● [F2] Sample Edit Trim

This operation is the same as in the Sampling Record mode (when Sampling Type is set to “slice + seq”). See page 237.



● [F3] Sample Edit Parameter



• Level

Determines the output level of the selected sample.

□ Settings -94.5dB ~ 0dB

• Pan

Determines the stereo position of the selected sample.

□ Settings L63 (far left) ~ C (center) ~ R63 (far right)

• PlayMode

Determines how the selected sample is to be played back.

□ Settings

forward

The Sample playback begins from the Start point to the End point.

reverse

The Sample playback begins from the End point to the Start point in reverse.

loop

The Sample playback begins from the Start point, moves to the Loop point and then repeats continuously from the Loop point to the End point.

NOTE For details about these settings above, see page 61.

• Original Key

Determines the base key for the sample. Since the sample will be pitched shifted for keys played around this base key, this should be set as close as possible to the original pitch or note value of the actual sample.

□ Settings C - 2 ~ G8

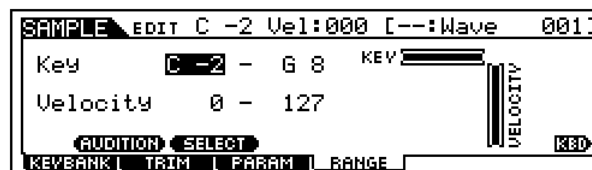
• Fine Tune

Determines the fine tuning for the pitch of the sample.

□ Settings -100 ~ 99 cents

● [F4] Sample Edit Range

From this display you can set the Key Range and the Velocity Range for the sample assigned to the selected Key Bank. Note that both the Key range and Velocity range values are graphically indicated in the display.



NOTE When the cursor is at one of the Key Range values, you can directly set the Key Range parameter from the keyboard. (Simultaneously hold down the [INFORMATION] button and press the appropriate key on the keyboard.)

Sampling Job mode

The Sampling Job mode contains a comprehensive set of editing tools and functions you can use to change the sound of the sample you've created and edited in the Sampling Edit mode. It also includes a variety of convenient operations, such as copying or erasing data.

◆ Basic Procedure

- 1** Press the [INTEGRATED SAMPLING] button to enter the Sampling mode. (The indicator lights.)

NOTE Unlike in the Sampling Record mode, all parameters and functions of the Sampling Job mode are the same, no matter which mode was previously selected. The only exception to this is the Slice Job ([F1]-12 below), which varies depending on whether the previously selected mode was Voice/Performance or Song/Pattern.

NOTE All Sampling Job operations apply to the Waveform (actual sample), not the voice.

- 2** Press the [JOB] button to enter the Sampling Job mode.

- 3 Select the desired Job menu by pressing the appropriate button, [F1] - [F3].
- 4 Use the CURSOR buttons to scroll to the desired Job.
- 5 Press the [ENTER] button to go to the selected Job display.
- 6 Set the relevant Job parameters.
- 7 Press the [ENTER] button. (The display prompts you for confirmation.)
- 8 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.

[NOTE] To cancel the Job, press the [DEC/NO] button.

[NOTE] The actual procedures in steps #7 and #8 above may differ depending on the specific Job. Refer to the explanations in each Job for details.

! CAUTION

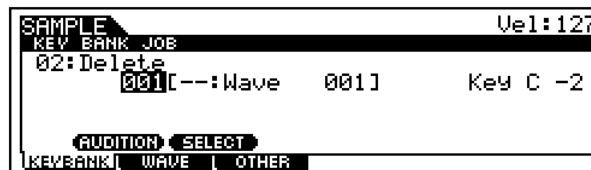
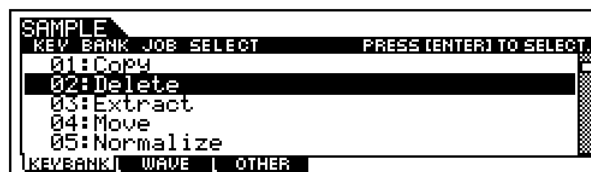
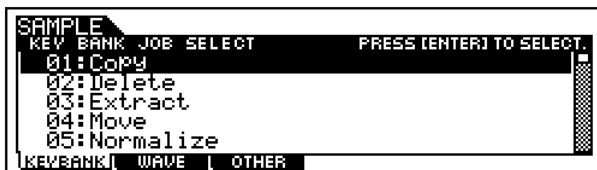
For Jobs that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

- 9 Press any other mode button to exit from the Sampling Job mode.

- For detailed instructions on steps #3 - #6, see the explanations below.

[F1] Key Bank Job

Press the [F1] button in step #3 of the Basic Procedure see above, so that the Key Bank Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.

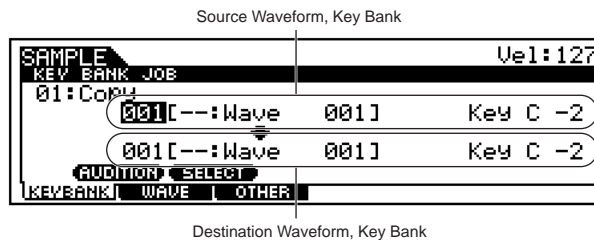


◆ Audition function and Key Bank (sample) selection

For the Key Bank Jobs that follow, the Audition function and Key Bank selection are the same as in the Sampling Edit mode (page 241). Here, you can call up and perform Jobs on the sample data assigned to the selected Key Bank. To audition the currently selected sample, press the [SF1] button (AUDITION). Also, note that for Jobs 01 - 04, the Keyboard control (“KBD”) is available — letting you directly change the Key Bank from the keyboard. (Simultaneously hold down the [INFORMATION] button and press the appropriate key on the keyboard.)

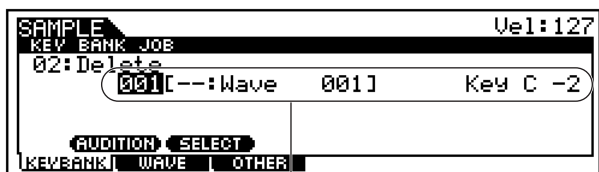
● [F1]-01 Copy

This Job copies the data of a sample contained in a specified Key Bank to another Key Bank.



● [F1]-02 Delete

This Job deletes the specified Key Bank and its sample. If the Key Bank is set to “all” and the Job is executed, all the samples of the selected Waveform are deleted.



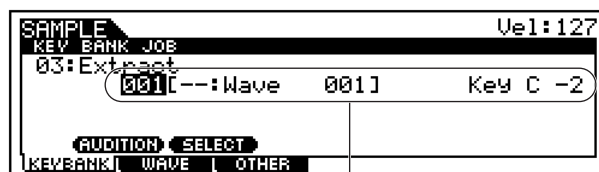
Waveform and Key Bank containing the sample to be deleted

NOTE If all the samples of the specified Waveform are deleted, the Waveform itself is deleted.

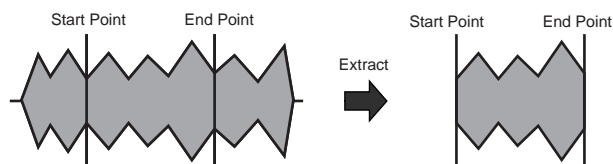
● [F1]-03 Extract

This Job deletes all unnecessary sample data (located ahead of the Start point and located after the End point). In effect, it extracts only the sample data you want to use, trimming all unneeded sound from the start and end of the sample.

If the Key Bank is set to “all” and the Job is executed, this Job is applied to all the samples of the selected Waveform.

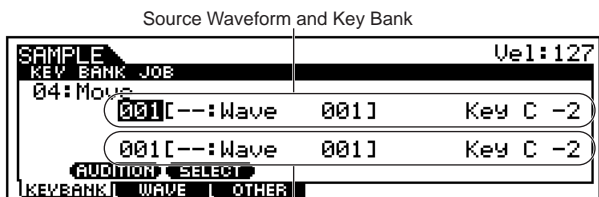


Waveform and Key Bank containing the sample to be extracted



● [F1]-04 Move

This Job lets you move a sample contained in a specified Key Bank to another Key Bank. This would be useful for creating a new Waveform from the samples of various other existing Waveforms.



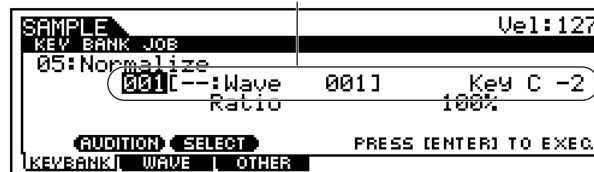
Destination Waveform and Key Bank

NOTE If the last remaining sample is moved from the source Waveform, the source Waveform itself is deleted.

● [F1]-05 Normalize

This Job maximizes (normalizes) the overall level of the specified sample. The “100” (100%) setting is a quick and convenient way to boost the level of an entire sample, to make it as loud as possible without distorting.

Set the Waveform and Key Bank containing the sample to be normalized.



Press the [ENTER] button to execute the Job.



Press the [F5] (CANCEL) button to cancel the operation.

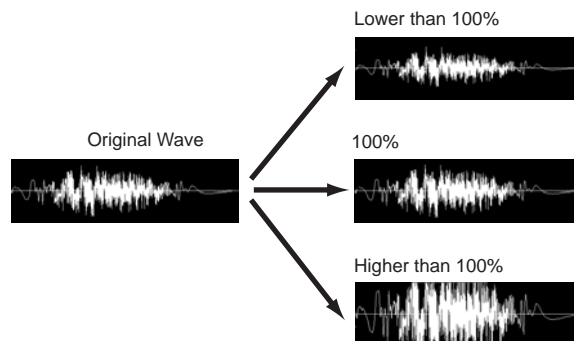
Press the [F6] (OK) button to assign the normalized sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you are not satisfied with the results, change the Ratio value and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

● Ratio

Specifies the post-normalization sample level. A setting of 100% maximizes the level so that the highest peak level in the sample is just below clipping (maximum digital signal level). Settings below 100% reduce the level of the sample accordingly. Settings higher than 100% will raise the sample level above the maximum, producing deliberate clipping.

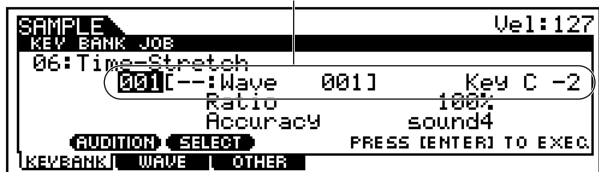
Settings 001-800%



● **[F1]-06 Time-Stretch**

This Job lets you change the length of the sample without changing the pitch.

Set the Waveform and Key Bank containing the sample to be time-stretched.



Press the [ENTER] button to execute the Job.



Press the [F5] (CANCEL) button to cancel the operation.

Press the [F6] (OK) button to assign the time-stretched sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you're not satisfied with the results, change the Ratio and Accuracy values and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

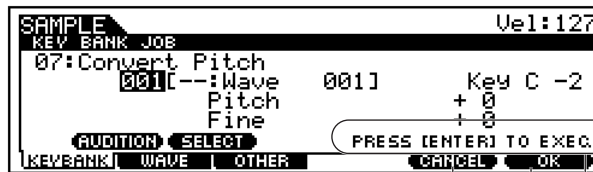
● **[F1]-07 Convert Pitch**

This Job lets you change the pitch of the sample without changing the length.

Set the Waveform and Key Bank containing the sample to be pitch-converted.



Press the [ENTER] button to execute the Job.



Press the [F5] (CANCEL) button to cancel the operation.

Press the [F6] (OK) button to assign the pitch-converted sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you're not satisfied with the results, change the Pitch and Fine values and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

● **Ratio**

Determines the length of post-process sample as a ratio of the length of the original sample (100%). Lower values compress the sample, while higher values expand the sample.

□ Settings 25 ~ 400%

● **Accuracy**

Determines the quality of the resulting sample by specifying which aspect of the original is to be emphasized: sound quality or rhythmic feel.

□ Settings 25 ~ 400%

Sound4-Sound1

These settings place emphasis on sound quality, with the "SOUND 4" setting producing the highest sound quality.

Normal

Produces an optimum balance of sound quality and rhythmic feel.

Rhythm1-Rhythm 2

These settings place emphasis on rhythmic feel, with the "Rhythm 2" setting producing the most accurate rhythmic feel.

● **Pitch**

Determines the amount and direction of pitch shift in semitone increments.

□ Settings -12 ~ 0 ~ +12

● **Fine**

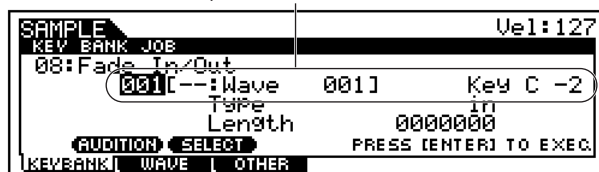
Determines the amount and direction of fine pitch shift in cent increments (1 cent = 1/100th of a semitone).

□ Settings -50 ~ 0 ~ +50

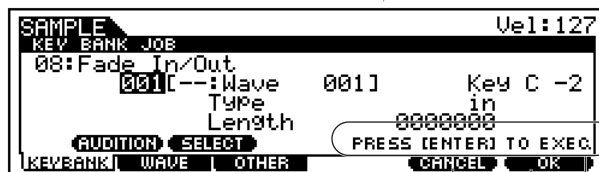
● [F1]-08 Fade In/Out

This Job lets you create fade-ins and fade-outs for the sample.

Set the Waveform and Key Bank containing the esired sample.



Press the [ENTER] button to execute the Job.



Press the [F5] (CANCEL) button to cancel the operation.

Press the [F6] (OK) button to assign the edited sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you re not satisfied with the results, change the Type and Length values and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

● Type

Determines the type of level fade: fade-in or fade-out.

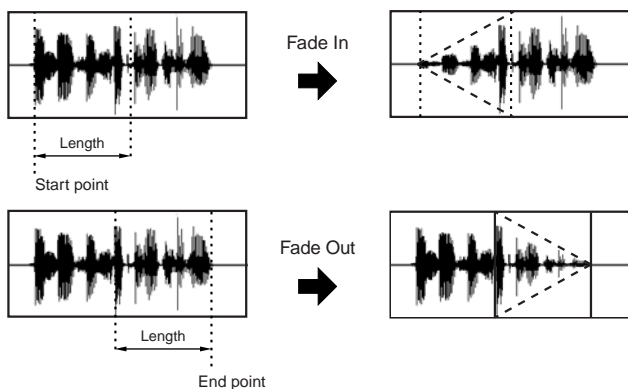
- Settings in (fade-in), out (fade-out)

● Length

Determines the length of the fade-in or fade-out.

When a fade-in is selected, this parameter specifies the length of the fade starting at the specified Start point. When a fade-out is selected, this parameter specifies the length of the fade starting at the beginning of the fade and ending at the specified End point.

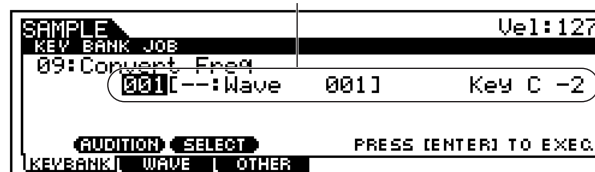
- Settings 0000000 ~ End point



● [F1]-09 Convert Freq

This Job lets you halve the sampling frequency of the specified sample. This can be used to convert hi-fi samples to a lo-fi sound, and reduce the sample size by half to conserve memory.

Set the Waveform and Key Bank containing the sample to be converted.



Press the [ENTER] button to execute the Job.



Press the [F5] (CANCEL) button to cancel the operation.

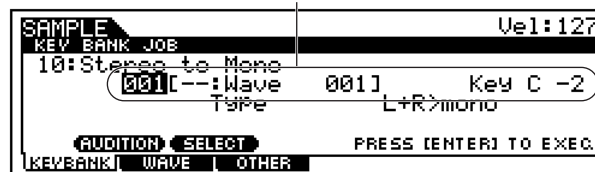
Press the [F6] (OK) button to assign the converted sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you re not satisfied with the results, change the Type and Length values and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

● [F1]-10 Stereo to Mono

This Job lets you convert a stereo sample to a mono sample.

Set the Waveform and Key Bank containing the sample to be converted.



Press the [ENTER] button to execute the Job.



Press the [F5] (CANCEL) button to cancel the operation.

Press the [F6] (OK) button to assign the converted sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you're not satisfied with the results, change the Type value and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

• **Type**

Determines which channel, or both channels, of the stereo sample will be converted to a mono sample.

❑ Settings

L+R > mono

The left and right channels of the stereo sample are mixed and converted to a mono sample.

L > mono

The left channel of the stereo sample is converted to a mono sample.

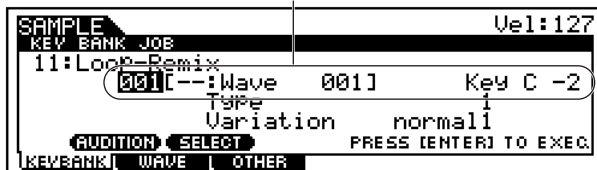
R > mono

The right channel of the stereo sample is converted to a mono sample.

● **[F1]-11 Loop-Remix**

This Job lets you automatically cut the sample into separate “slices” and randomly rearrange the slices for special effects and unusual rhythmic variations. A variety of audio transform operations are also included for even greater changes in the sound.

Set the Waveform and Key Bank containing the sample to be Loop-remixed.



Press the [F6] (OK) button to assign the Loop-remixed sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you re not satisfied with the results, change the Type and Variation values and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

• **Type**

Determines the degree to which the looped portion of the sample will be sliced.

❑ Settings 1 ~ 4

• **Variation**

Determines how the original sample is varied by the this Job.

❑ Settings

normal1, 2

These settings slice and rearrange the sample data, without performing any other audio changes.

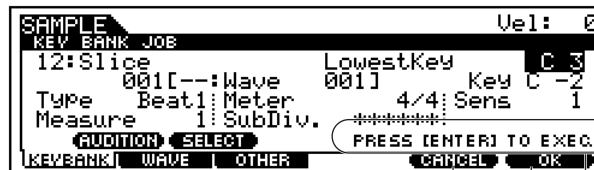
reverse1, 2

In addition to slicing and rearranging, these settings reverse the playback of some of the slices.

● **[F1]-12 Slice**

This Job lets you divide the sample into separate “slices,” the number of which is determined by the note length (with Measure, Meter, and SubDivide). When entering this Job from the Song/Pattern mode, note data for playing the slices in sequence is also created. (Keep in mind that the results of this Job vary depending on the previously selected mode: Voice/Performance or Song/Pattern.)

Set the Waveform and Key Bank containing the sample to be sliced.



Press the [F5] (CANCEL) button to cancel the operation.

Press the [F6] (OK) button to assign the sliced sample to the specified Key Bank.

Press the [ENTER] button to execute the operation. If you re not satisfied with the results, edit the various parameters and press the [ENTER] button again. This automatically reverts back to the original settings and executes the operation again with the new settings.

With the exception of the parameter below, all parameters and settings are the same as in the Slice display of the Sampling Record mode (page 238).

• **Lowest Key**

Specifies the lowest key number from which the sliced samples are ordered.

❑ Settings C - 2 ~ G8

NOTE In the Slice display of the Sampling Record mode (page 238), this parameter is fixed to “C-1” for the MOTIF6, “E0” for the MOTIF7, “A-1” for the MOTIF8, and cannot be set.

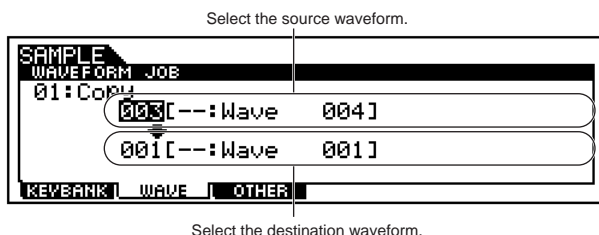
[F2] Waveform Job

Press the [F2] button in step #3 of the Basic Procedure on page 240 so that the Waveform Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



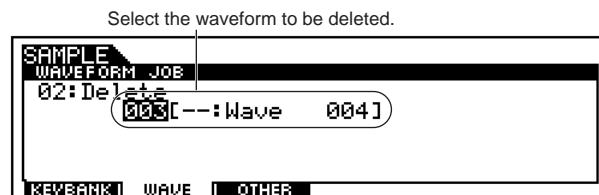
● [F2]-01 Copy

This Job lets you copy the data of one waveform to another.



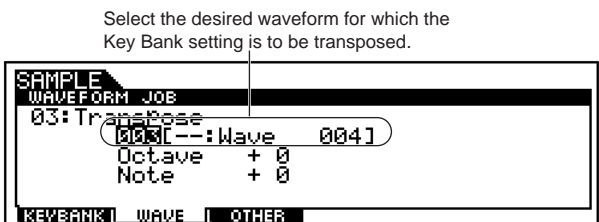
● [F2]-02 Delete

This Job lets you delete a specific waveform from memory.



● [F2]-03 Transpose

This Job lets you transpose the Key bank setting of a specified waveform.



● Octave

Determines the amount in octaves by which the Key Bank is transposed. When you want to transpose by less than one octave, set this to "0" and use the Note parameter below.

□ Settings -3 ~ 0 ~ +3

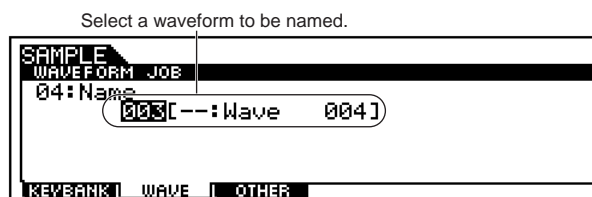
● Note

Determines the amount in semitones by which the Key Bank is transposed. When you want to transpose by exact octaves, set this to "0" and use the Octave parameter above.

□ Settings -11 ~ 0 ~ +11

● [F2]-04 Name

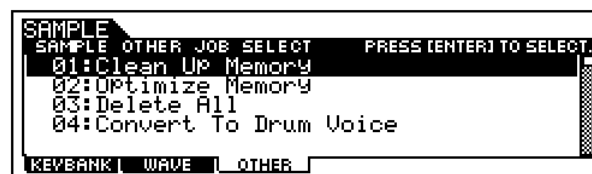
This Job lets you assign a name to the selected waveform.



For specific instructions on naming, see "Basic Operation" on page 75.

[F3] Other Jobs

Press the [F3] button in step #3 of the Basic Procedure on page 240 so that the following Job list appears on the display. Scroll the cursor to the desired Job and press the [ENTER] button to go to the display of the selected Job.



● [F3]-01 Clean Up Memory

This Job deletes all the waveforms to which User voices or Sample voices are not assigned.



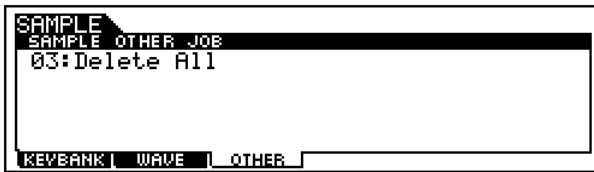
● [F3]-02 Optimize Memory

This Job optimizes the memory (DRAM) for sampling.



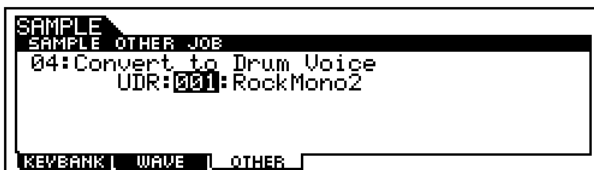
● [F3]-03 Delete All

This Job deletes all the waveforms.



● [F3]-04 Convert to Drum Voice

This Job lets you convert the selected waveform to a specific Drum voice. Since the Sampling function allows creation of only Normal voices, this Job makes it possible to create a Drum voice with your recorded samples.



Utility Mode

Function Tree

This section is devoted to the Utility mode. To see how the Utility mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30.

The following detailed chart shows all of the display menus and parameter groups of the Utility mode — giving you a quick, easy-to-understand overview of the global, system-wide functions of the MOTIF.

Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

[UTILITY]		
	[INFORMATION] UTILITY INFORMATION.....	P. 276
	[F1] SYSTEM GENERAL.....	P. 250
	[SF1] TG.....	P. 250
	[SF2] KEYBOARD.....	P. 251
	[SF3] EFFECT BYPASS.....	P. 252
	[SF4] OTHER.....	P. 252
	[F2] SYSTEM I/O.....	P. 252
	[SF1] Input.....	P. 252
	[SF2] Output.....	P. 253
	[SF3] mLAN CONNECTION.....	P. 253
	[F3] SYSTEM VOICE (available only when entering Utility mode from Voice mode).....	P. 253
	[SF1] MASTER EQ.....	P. 253
	[SF2] ARPEGGIO CHANNEL.....	P. 254
	[SF3] CONTROLLER ASSIGN.....	P. 254
	[F3] SYSTEM SEQ (available only when entering Utility mode from Song/Pattern modes).....	P. 254
	[SF1] CLICK.....	P. 254
	[SF2] MIDI FILTER IN/OUT.....	P. 255
	[SF4] OTHER.....	P. 255
	[F4] SYSTEM CONTROLLER ASSIGN.....	P. 255
	[SF1] ARPEGGIO.....	P. 255
	[SF2] ASSIGNABLE.....	P. 256
	[SF3] FOOT SWITCH.....	P. 256
	[SF4] EXTERNAL SEQ REMORT CONTROL TEMPLATE.....	P. 256
	[F5] SYSTEM MIDI.....	P. 258
	[SF1] CHANNEL.....	P. 258
	[SF2] SWITCH.....	P. 258
	[SF3] SYNC.....	P. 258
	[SF4] OTHER.....	P. 259
	[F6] SYSTEM PLUG-IN BOARD.....	P. 259
	[SF1] STATUS.....	P. 259
	[SF2] MIDI.....	P. 260
	[SF3] NATIVE SYSTEM PARAMETER for Slot1.....	P. 260
	[SF4] NATIVE SYSTEM PARAMETER for Slot2.....	P. 260
	[SF5] NATIVE SYSTEM PARAMETER for Slot3.....	P. 260
	[JOB] FACTORY SET.....	P. 260

Utility mode

In this mode, you can set parameters that apply to the entire system of the MOTIF. These include MIDI settings and global setup parameters.

This mode is actually a sub-mode of the Voice/Performance/Song/Pattern mode. Press the [UTILITY] button in each mode to enter the Utility mode and press the [EXIT] button after making settings to go back to the previous mode.

◆ Basic Procedure

1 Press the [UTILITY] button to enter the Utility mode. (The indicator lights.)

NOTE For example, if you press the [UTILITY] button while in the Performance mode, you enter the Utility mode as a sub-mode of the Performance mode — allowing you to select and play performances while in the Utility mode.

NOTE Even after you enter the Utility mode, the indicator of the previous mode's button remains lit, letting you see at-a-glance which mode you've entered from.

2 Select the desired menu by pressing the [F1] - [F6] buttons and set the parameters in each display.

NOTE The display called up via the [F3] button varies according to the previous mode (before entering the Utility mode).

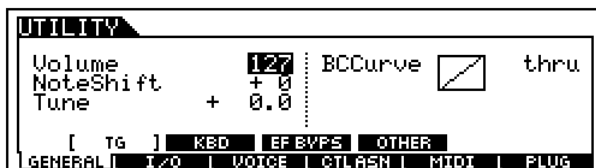
3 Press the [EXIT] button to exit from the Utility mode back to the previous mode.

- For detailed instructions on steps #2, see the explanations below.

[F1] System settings

● [F1]-[SF1] General **TG (Tone Generator)**

From this display you can make overall settings for the MOTIF's tone generator, including volume and pitch, as well as Breath Control response.



• Volume

Determines the MOTIF's overall volume.

□ Settings 0 ~ 127

• NoteShift

Determines the amount (in semitones) by which the note pitch is shifted. This parameter only affects the MOTIF's internal tone generator block. It does not affect information transmitted via the MIDI terminal.

□ Settings 24 ~ 0 ~ +24

• Tune

Determines the fine tuning (in 0.1 cent steps) of the MOTIF's overall sound.

□ Settings 102.4 ~ +102.3

• BCCurve (Breath Controller Curve)

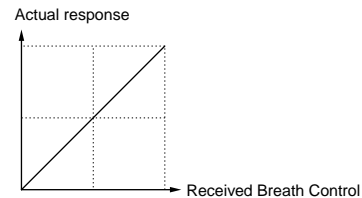
These four curves determine how the sound of the MOTIF responds to use of a Breath Controller.

The specific aspect of the sound that is affected by Breath Control and the selected curve is set in the Controller Set display (page 134) in the Normal Voice Element Edit mode.

□ Settings thru, soft, hard, wide

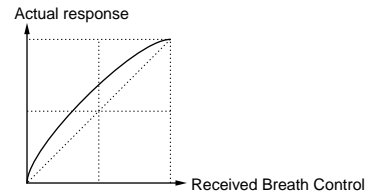
thru

This linear "curve" produces one-to-one correspondence between the power of your breath and the actual sound change.



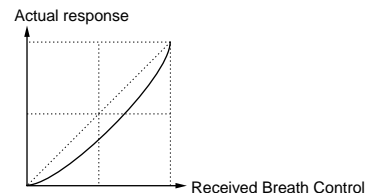
soft

This curve provides increased response, especially for lower breath power. In other words, soft blowing results in higher response than the "thru" curve. Use this curve if you want greater control in the soft breath range.



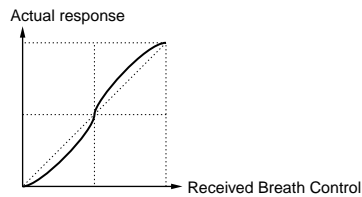
hard

This curve effectively lessens the overall response compared to the "thru" curve. Use this curve if you tend to blow strongly and want the controller effect to be less sensitive.



wide

This setting provides opposite response curves for lower and higher breath powers. It widens the apparent dynamic range of the controller, producing softer response in the lower breath range and harder response in the higher range.



● [F1]-[SF2] General Keyboard

From this display you can set the keyboard-related parameters for the MOTIF.



• Octave

Determines the amount in octaves by which the range of the keyboard is shifted up or down.

□ Settings -3 ~ 0 ~ +3

• Transpose

Determines the amount in semitones by which the range of the keyboard is shifted up or down. Keep in mind that this also affects outgoing MIDI data.

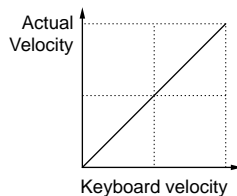
□ Settings -11 ~ 0 ~ +11

NOTE If you transpose beyond the note range limits (C-2 and G8), notes in the adjacent octaves will be used. For example, a transposed note of F9 will be changed to F8.

• VelCurve (Velocity Curve)

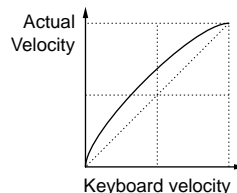
norm (normal)

This linear “curve” produces one-to-one correspondence between the strength of your keyboard playing (velocity) and the actual sound change. The harder you play, the greater the sound change.



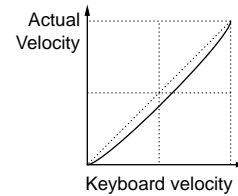
soft

This curve provides increased response, especially for lower velocities. In other words, playing softly results in higher response than the “norm” curve. Use this curve if you want greater control in the low velocity range.



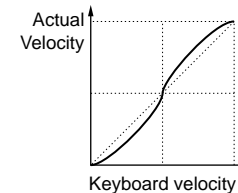
hard

This curve effectively lessens the overall response compared to the “norm” curve. Use this curve if you tend to play strongly and want the sound change to be less sensitive.



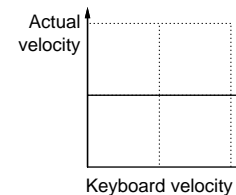
wide

This setting provides opposite response curves for lower and higher velocities. It widens the apparent dynamic range of the controller, producing less sound change in the softer range and more change in the higher range.



fixed

This setting produces the same amount of sound change (set in Fixed Velocity below), no matter what your playing strength. For example, you can use this to emulate the key response of conventional organs, or ensure that the sound change is absolutely uniform, no matter how hard or softly you play.



NOTE Actual velocity is output to the external MIDI device via the MIDI or USB connector, as well as to the internal tone generator block.

• Fixed Velocity

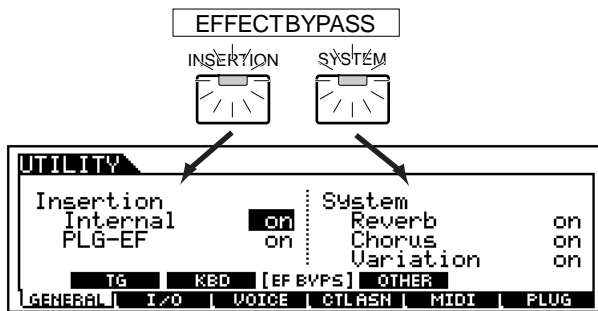
This parameter is only available if you select the “fixed” Velocity Curve above.

The velocity of the note you play is fixed at the value set here.

□ Settings 1 ~ 127

● [F1]-[SF3] General **Effect Bypass**

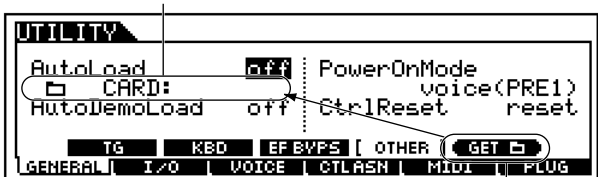
From this display you can select the specific effect(s) to be bypassed when the [EFFECT BYPASS] button (page 13) is turned on.



□ Settings on (bypassed), off

● [F1]-[SF4] General **Other**

Device and folder which contains the files to be auto-loaded (set by pressing the [SF5] button).



Press the [SF5] button to register the most recently selected device/folder for auto loading.

NOTE For details, see page 264.

• **Auto Load**

Determines whether the Auto Load function is on or off. When this is on, the MOTIF will automatically load the specified files (from memory card or SCSI storage device) to User memory — whenever the power is turned on. (See above illustration for additional explanations.)

□ Settings on, off

• **Auto DemoLoad**

The MOTIF features special Demo song data, which is stored to ROM and should be loaded to DRAM for proper operation (page 64). When this parameter is set to “on,” the Demo song data is automatically loaded when the power is turned on. This parameter determines whether the Demo song data is automatically loaded (on) or not (off) when turning the power on.

□ Settings on, off

NOTE When Auto Load is set to on, the Auto Demo Load parameter cannot be set.

CAUTION

If this parameter is set to on, all User Voice, Performance, Master, and System settings will be initialized to the Factory settings when switching the power on the next time. Important data should always be backed up to a separate Memory Card or some other storage device.

• **PowerOnMode**

This determines the default power-on mode (and memory bank) for the MOTIF — letting you select which condition is automatically called up when you turn the power on.

□ Settings See below.

Performance

When you switch the MOTIF on, the Performance Play mode is entered and the first program number (USER: 001) is selected automatically.

Voice (User)

When you switch the MOTIF on, the Voice Play mode is entered and the first program number of the User Voices (USER: 001) is selected automatically.

Voice (PRE1)

When you switch the MOTIF on, the Voice Play mode is entered and the first program number of the Preset Voices (PRE 1: 001) is selected automatically.

GM

When you switch the MOTIF on, the Voice Play mode is entered and the first program number of the GM Voices (GM: 001) is selected automatically.

last

When you switch the MOTIF on, the Voice/Performance Program Number selected before you switched the power off is recalled.

Master

When you switch the MOTIF on, the Master Play mode is entered and the first program number (001) is selected automatically.

• **CtrlReset (Controller Reset)**

Determines the status of the controllers (Modulation Wheel, Aftertouch, Knobs, etc.) when switching between voices. When this is set to “off,” the controllers are kept at the current setting. When this is set to “on,” the controllers are reset to the default states (below).

□ Settings on, off

If you select “on,” the controllers will be reset to the following states/positions:

Pitch Bend	Center
Modulation Wheel	Minimum
Aftertouch	Minimum
Foot Controller	Maximum
Breath Controller	Maximum
Foot Switch	Off
Expression	Maximum
Foot Volume	Maximum
Sustain	Off

[F2] Interface settings

● [F2]-[SF1] I/O **Input**

From this display you can set parameters related to audio input.



• **A/DSource**

The MOTIF features two different input connections for transferring analog audio from an external device: the A/D INPUT jacks or the mLAN terminal (when an optional mLAN8E is installed). One or the other must be set; the two cannot be used at the same time.

□ Settings analog (A/D INPUT jack), mLAN

• **Mic/Line**

When using the A/D INPUT jacks, this determines the input source, microphone (mic) or line.

- Settings mic, line

• **Digital**

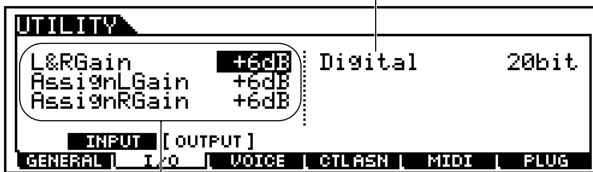
When the optional AIEB2 board is installed, the MOTIF features two different input connections for transferring digital audio from an external device: coaxial or optical. One or the other must be set; the two cannot be used at the same time.

- Settings coaxial, optical

● **[F2]-[SF2] I/O Output**

From this display you can set parameters related to audio output.

Specify the digital output resolution of the optionally installed AIEB2 board (page 19).
 Settings 20bit, 24bit



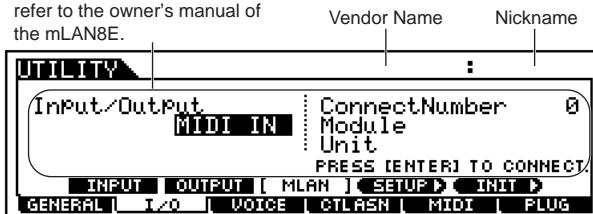
Set the output gain of each jack.
 Settings 0dB, +6dB, +12dB, +18dB

NOTE The digital output resolution of the MOTIF itself is set to 16 bit (fixed).

● **[F2]-[SF3] I/O mLAN connection**

From this display you can set parameters related to connection of an optional mLAN8E (page 18). The following display is available only when the optional mLAN8E has been installed.

For details on this parameter, refer to the owner's manual of the mLAN8E.



[EXIT] button ↑ ↓ [SF4] button

Assign a nickname for the connection. For specific instructions on naming, see Basic Operation on page 75. For details about the Nickname parameter, refer to the owner's manual of the mLAN8E.



Set the Word Clock. For details, refer to the owner's manual of the mLAN8E.

Press the [ENTER] button to actually set the value.

NOTE All mLAN8E-related settings in the Utility mode are stored only to the memory on the mLAN8E itself, and not to the User memory of the MOTIF.

To initialize all the mLAN settings above, use the following procedure.



[EXIT] button ↑ ↓ [SF5] button



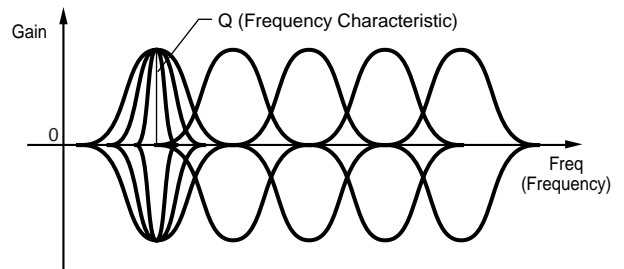
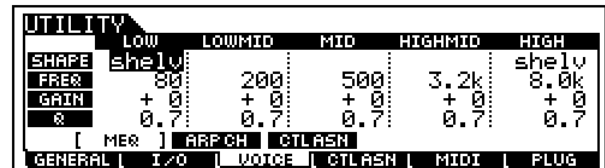
Press the [ENTER] button to actually initialize the mLAN settings.

[F3] Voice settings

These special voice-related settings are available only when entering the Utility mode from the Voice mode.

● **[F3]-[SF1] Voice Master Equalizer**

From this display you can apply five-band equalization to all parts of the selected voice.



• **Shape**

Determines whether the equalizer type used is Shelving or Peaking. The Peaking type attenuates/boosts the signal at the specified Frequency setting, whereas the Shelving type attenuates/boosts the signal at frequencies above or below the specified Frequency setting.

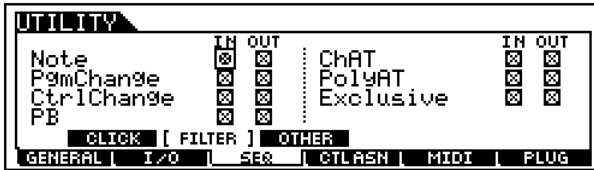
- Settings shelv (Shelving), peak (Peaking)

NOTE For details about the shapes of the Shelving and Peaking types, see page 168.

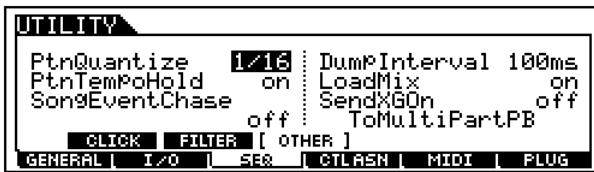
● [F3]-[SF2] Sequencer MIDI Filter

From this display you can set which MIDI events will be recognized/transmitted via the MIDI IN/OUT terminal or the USB terminal.

The settings made here apply only to song/pattern playback data; they do not affect the MIDI events generated by your keyboard playing or panel operations in the Voice and Performance modes.



● [F3]-[SF3] Sequencer Other



● PtnQuantize (Pattern Quantize)

Determines the quantize value for pattern switching during playback. When set to “1,” patterns (sections) will always switch on the first beat of the measure during playback. When “1/16” is selected, patterns (sections) can be switched on any 16th beat during playback.

Settings 1 (1 measure), 1/2 (Half note), 1/4 (Quarter note), 1/8 (8th note), 1/16 (16th note)

● PtnTempoHold (Pattern Tempo Hold)

Determines whether or not the tempo setting will switch to the tempo value stored with each style when a new style is selected during playback.

When set to “on,” the tempo will be retained when styles are switched.

When set to “off,” the tempo will switch to that stored with the new style when styles are switched.

Settings on, off

NOTE The tempo setting data in the Pattern Chain is not affected by this parameter.

● SongEventChase

Event Chase allows you to specify which non-note data types are properly recognized during fast-forward and rewind operations. Normally, if a song or pattern is played back from mid-point and/or fast-forward or rewind are used, certain data types (such as Program Change, Pitch Bend, and Control Change) may not play back as expected. Setting this to a specific event ensures the playback “integrity” of the event, even when fast-forwarding or rewinding.

Settings Off, PC (Program Change), PC + PB + Ctrl (Program Change + Pitch Bend + Control Change), All (All events)

NOTE Keep in mind that settings other than “off” may result in slower operation — for example, a pause before starting playback, or slower rewind/fast-forward speed.

NOTE When this is set to “All,” an excessive amount of MIDI data may be generated, possibly resulting in a MIDI error on the connected device.

● DumpExIntrval (Bulk Dump Exclusive Interval Time)

When playing back system exclusive data (bulk data) that is recorded on the sequence tracks, this sets the interval that is inserted for each 1KB.

When sending bulk data from the MOTIF to a connected MIDI device, a MIDI error may result if the device cannot handle large amounts of data in a short time. This parameter compensates for that by setting an interval that provides enough time for the receiving device to process the bulk data.

Settings 0 ~ 900 (msec)

NOTE The playback may be a little slower depending on the currently set interval. Also when a MIDI error occurs, try to set the interval a little higher and send the data again.

● LoadMix

Determines whether the Mixing settings are loaded (on) or not (off) when the Song/Style number is changed.

Settings off, on

NOTE This setting affects the Song/Pattern change during the Song/Pattern chain playback.

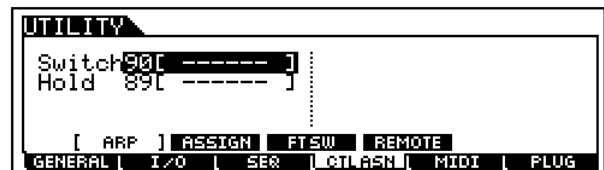
● SendXGon

Determines whether the XG reset message is sent to the Multi-part Plug-in board tone generator block (on) or not (off) when starting the XG song or changing the Song/Style number.

Settings on, off

[F4] Controller settings

● [F4]-[SF1] Controller Assign Arpeggio



● Switch

Determines the Control Change Number that controls the Arpeggio playback on/off.

Settings off, 01 ~ 95

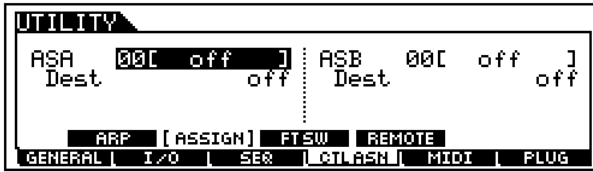
● Hold

Determines the Control Change Number that controls the Arpeggio Hold (page 129) on/off.

Settings off, 01 ~ 95

● [F4]-[SF2] Controller Assign **Knob ASSIGN A, B**

From this display you can assign specific functions to the ASSIGN A and B knobs.



• ASA, ASB (Assignable A, B)

Determines the Control Change number to be controlled by the ASSIGN knobs A and B.

- Settings 000 ~ 095 (Refer to the separate Data List booklet.)

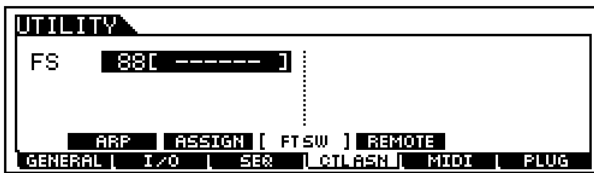
• Dest (Control Destination)

Determines the function to be controlled by the Control Change number set above.

- Settings Refer to the separate Data List booklet.

● [F4]-[SF3] Controller Assign **Footswitch**

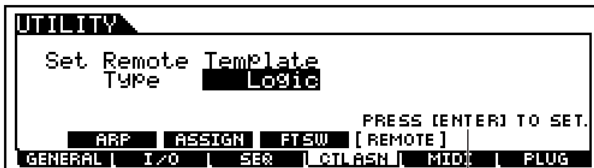
From this display you can assign a specific function to the Footswitch.



- Settings 000 ~ 100 (000, 032 : off, 096 : Arpeggio Switch, 097 : Arpeggio Hold, 098 : Song/Pattern playback start/stop, 099/100 : Program Change INC/DEC 101 : Octave Rest)

● [F4]-[SF4] Controller Assign **Remote**

The MOTIF gives you convenient remote control over major functions in several popular sequencer programs. This lets you automatically configure the MOTIF for use with your particular sequencer program, by specifying the template to be used.

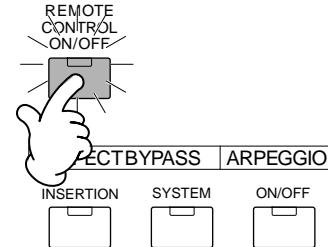


[Press the [ENTER] button to call up the template provided for the selected software.

- Settings Cubase, Logic, Cakewalk, ProTools

◆ Remote Control of Computer Sequence Software

Using the Remote Control function lets you control computer sequence software by using the buttons or controllers on the MOTIF. Turn the Remote Control function on by pressing the [REMOTE CONTROL ON/OFF] button so that its lamp flashes.



• Setup

Before you can use the Remote Control function, you'll need to follow the setup instructions below.

- 1 Connect the MOTIF to your computer via a USB cable. For details, see page 25.
- 2 Install the USB MIDI driver and the setup file for the sequence software (contained in the included CD-ROM) to your computer. For details on how to install, see the Installation Guide manual.
- 3 Select the template for your particular sequence software in the Utility mode on the MOTIF (above).
- 4 Set the MIDI IN/OUT setting to "USB" in the Utility mode on the MOTIF (page 259).

• Compatible Software

The following computer sequence software programs can be controlled via the MOTIF's Remote Control function.

Windows

Cubase VST/32
Logic Audio Platinum Ver4.6
Cakewalk ProAudio Ver9.0
Pro Tools V5.0

Macintosh

Cubase VST 5.0
Logic Audio Platinum Ver4.6
Pro Tools V5.0

◆ Remote Control Assignments

Functions to be controlled by the MOTIF differ depending on the software you use. When the appropriate template is selected, the following functions on the corresponding software can be controlled.

• Logic Audio Platinum Ver4.6

When the template is set to “Logic,” the following functions can be controlled by the MOTIF.

	These control the track selected via the NUMBER [1] - [16] buttons.				
Knobs	Set via [KNOB CONTROL FUNCTION]	KN1	KN2	KN2	KN4
	1st row	PAN	SEND1	SEND2	SEND3
	2nd row	PAN	EQ1 Freq	EQ1 Gain	EQ1 Q
	3rd row	PAN	EQ2 Freq	EQ2 Gain	EQ2 Q
	4th row	PAN	EQ3 Freq	EQ3 Gain	EQ3 Q
Sliders	These control the four tracks selected via the NUMBER [1] - [16] buttons.				
	Selected tracks	CS1	CS2	CS3	CS4
	1 ~ 4	VOLUME1	VOLUME2	VOLUME3	VOLUME4
	5 ~ 8	VOLUME5	VOLUME6	VOLUME7	VOLUME8
	9 ~ 12	VOLUME9	VOLUME10	VOLUME11	VOLUME12
	13 ~ 16	VOLUME13	VOLUME14	VOLUME15	VOLUME16
SEQ TRANS-PORT	These control PLAY, REC, STOP, TOP, ◀, ▶ of the computer sequence software.				
TRACK MUTE	When the [MUTE] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons control the track mute settings of the computer sequence software.				
TRACK SELECT	When the [TRACK SELECT] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons select the track of the computer sequence software.				

• Cubase VST/32, Cubase VST 5.0

When the template is set to “Cubase,” the following functions can be controlled by the MOTIF.

	These control the track selected via the NUMBER [1] - [16] buttons.				
Knobs	Set via [KNOB CONTROL FUNCTION]	KN1	KN2	KN2	KN4
	1st row	PAN	SEND1	SEND2	SEND3
	2nd row	PAN	EQLo Freq	EQLo Gain	EQLo Q
	3rd row	PAN	EQMidLo Fre	EQMidLo Gai	EQMidLo Q
	4th row	PAN	EQHi Freq	EQ3Hi Gain	EQ3Hi Q
Sliders	These control the four tracks selected via the NUMBER [1] - [16] buttons.				
	Selected tracks	CS1	CS2	CS3	CS4
	1 ~ 4	VOLUME1	VOLUME2	VOLUME3	VOLUME4
	5 ~ 8	VOLUME5	VOLUME6	VOLUME7	VOLUME8
	9 ~ 12	VOLUME9	VOLUME10	VOLUME11	VOLUME12
	13 ~ 16	VOLUME13	VOLUME14	VOLUME15	VOLUME16
SEQ TRANS-PORT	These control PLAY, REC, STOP, TOP, ◀, ▶ of the computer sequence software.				
TRACK MUTE	When the [MUTE] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons control the track mute settings of the computer sequence software.				
TRACK SELECT	When the [TRACK SELECT] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons select the track of the computer sequence software.				

• Cakewalk ProAudio Ver9.0

When the template is set to “Cakewalk,” the following functions can be controlled by the MOTIF.

	These control the track selected via the NUMBER [1] - [16] buttons.				
Knobs	Set via [KNOB CONTROL FUNCTION]	KN1	KN2	KN2	KN4
	1st row	PAN	SEND1	SEND2	SEND3
	2nd row	---	---	---	---
	3rd row	---	---	---	---
	4th row	---	---	---	---
Sliders	These control the four tracks selected via the NUMBER [1] - [16] buttons.				
	Selected tracks	CS1	CS2	CS3	CS4
	1 ~ 4	VOLUME1	VOLUME2	VOLUME3	VOLUME4
	5 ~ 8	VOLUME5	VOLUME6	VOLUME7	VOLUME8
	9 ~ 12	VOLUME9	VOLUME10	VOLUME11	VOLUME12
	13 ~ 16	VOLUME13	VOLUME14	VOLUME15	VOLUME16
SEQ TRANS-PORT	These control PLAY, REC, STOP, TOP, ◀, ▶ of the computer sequence software.				
TRACK MUTE	When the [MUTE] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons control the track mute settings of the computer sequence software.				
TRACK SELECT	When the [TRACK SELECT] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons select the track of the computer sequence software.				

• Pro Tools V5.0

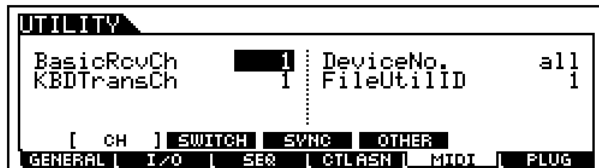
When the template is set to “ProTools,” the following functions can be controlled by the MOTIF.

Knobs	Not available.				
Sliders	These control the four tracks selected via the NUMBER [1] - [16] buttons.				
	Selected tracks	CS1	CS2	CS3	CS4
	1 ~ 4	VOLUME1	VOLUME2	VOLUME3	VOLUME4
	5 ~ 8	VOLUME5	VOLUME6	VOLUME7	VOLUME8
	9 ~ 12	VOLUME9	VOLUME10	VOLUME11	VOLUME12
	13 ~ 16	VOLUME13	VOLUME14	VOLUME15	VOLUME16
SEQ TRANS-PORT	These control PLAY, REC, STOP, TOP, ◀, ▶ of the computer sequence software.				
TRACK MUTE	When the [MUTE] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons control the track mute settings of the computer sequence software.				
TRACK SELECT	When the [TRACK SELECT] button on the MOTIF is turned on, the NUMBER [1] - [16] buttons select the track of the computer sequence software.				

[F5] MIDI settings

● [F5]-[SF1] MIDI Channel

From this display you can make basic MIDI settings.



● BasicRcvCh (Basic Receive Channel)

Determines the MIDI channel over which the MOTIF receives MIDI data (from an external sequencer, MIDI controller, or other device). This parameter is available for the Voice / Performance mode.

Settings 1 ~ 16, omni (all channels), off

● KBDTransCh (Keyboard Transmit Channel)

Determines the MIDI channel over which the MOTIF sends MIDI data (to an external sequencer, tone generator, or other device). This parameter is available for the Voice / Performance mode.

Settings 1 ~ 16, off

NOTE In the Song/Pattern mode, the MIDI data created by playing the keyboard/knobs/wheels is sent to the tone generator block or the external MIDI devices via the MIDI output channel of the currently selected track (page 38).

● DeviceNo. (Device Number)

Determines the device number used by the MOTIF in receiving or transmitting data. This number must match the Device Number of the external MIDI device when transmitting/receiving bulk data, parameter changes or other system exclusive messages to/from it.

Settings 1 ~ 16, all, off

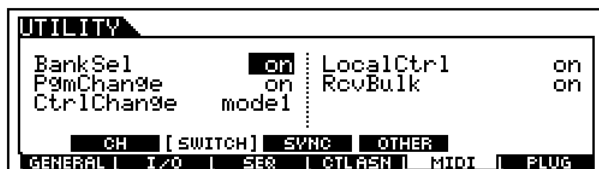
● FileUtilID (File Utility ID)

This determines the ID number used in conjunction with file transfers using the special File Utility software in the included CD-ROM. This File Utility ID number and the Device Number (above) must match the ones of the the File Utility software in order to properly transfer files between the MOTIF and a connected computer.

Settings: 1 ~ 128

● [F5]-[SF2] MIDI Switch

From this display you can determine which types of MIDI data the MOTIF transmits and responds to.



● BankSel

This switch enables or disables Bank Select messages, both in transmission and reception. When this is set to “on,” the MOTIF responds to incoming Bank Select messages, and it also transmits appropriate Bank Select messages (when using the panel).

Settings off, on

● PgmChange (Program Change)

This switch enables or disables Program Change messages, both in transmission and reception. When this is set to “on,” the MOTIF responds to incoming Program Change messages, and it also transmits appropriate Program Change messages (when using the panel).

Settings off, on

● CtrlChange (Control Change mode)

This parameter lets you set the MOTIF to properly respond to either type of GM System data, Level 1 or Level 2 — particularly regarding AEG Sustain. When using GM Level 2, set this to Mode 1, and the MOTIF responds to the messages as parameter change data. When using GM Level 1, set this to Mode 2, and the MOTIF responds to the messages as control change data.

Settings mode1, mode2

● LocalCtrl (Local Control On/Off)

This determines whether or not the tone generator of the MOTIF responds to your keyboard playing. Normally, this should be set to “on” — since you’ll want to hear the sound of the MOTIF as you play it. However, for external sequencer applications, you may need to set this to “off” to avoid getting “double” notes, in which the tone generator of the MOTIF is played twice — once by the keyboard and once again by the keyboard data routed through the sequencer.

Even if this is set to “off,” the data will be transmitted through the MIDI OUT or USB terminal. Also, the MOTIF’s tone generator block will respond to messages received via the MIDI IN or USB terminal.

Settings off, on

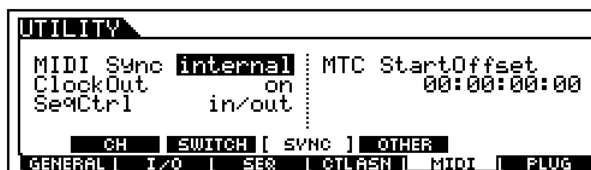
● RcvBulk (Receive Bulk)

Determines whether or not Bulk Dump data can be received.

Settings protect (not received), on (received)

● [F5]-[SF3] MIDI Sync

From this display you can set various parameters related to MIDI clock and synchronization.



● MIDI Sync

Determines whether Song/Pattern/Arpeggio playback will be synchronized to the MOTIF’s internal clock or an external MIDI clock.

Settings internal, MIDI, MTC

internal

Synchronization to internal clock. Use this setting when the MOTIF is to be used alone or as the master clock source for other equipment.

MIDI

The MOTIF is synchronized to a MIDI clock received from an external MIDI device via the MIDI IN or USB terminal.

MTC (MIDI Time Code)

The MOTIF is synchronized to an MTC signal received via the MIDI IN or USB terminal. MMC signals are transmitted via the MIDI OUT or USB terminal. Use this setting when the MOTIF is to be used as a MIDI slave, such as when synchronized to an MTC-capable MTR.

[NOTE] The MTC Sync function is available only in the Song mode. The Pattern playback (in the Pattern mode) and the Arpeggio playback (in the Voice/Performance mode) cannot be synced to MTC.

[NOTE] MTC (MIDI Time Code) allows simultaneous synchronization of multiple audio devices via standard MIDI cables. It includes data corresponding to hours, minutes, seconds, and frames. The MOTIF does not transmit MTC. A device such as the Yamaha AW4416 is necessary in order to the MOTIF as an MTC master.

[NOTE] MMC (MIDI Machine Control) allows remote control of multitrack recorders, MIDI sequencers, etc. A MMC-compatible multitrack recorder, for example, will automatically respond to start, stop, fast forward, and fast reverse operations performed on the controlling sequencer, thus keeping playback of the sequencer and multitrack recorder aligned.

• ClockOut

Determines whether MIDI clock (F8) messages will be transmitted via the MIDI OUT/USB terminal.

Settings on (transmitted), off

• SeqCtrl (Sequencer Control)

Determines whether Sequencer Control signals — start, continue, stop, and song position pointer — will be received and/or transmitted via the MIDI OUT/USB terminal.

settings off, in, out, in/out

off Not transmitted/recognized.
in Recognized but not transmitted.
out Transmitted but not recognized.
in/out Transmitted/recognized.

• MTC StartOffset

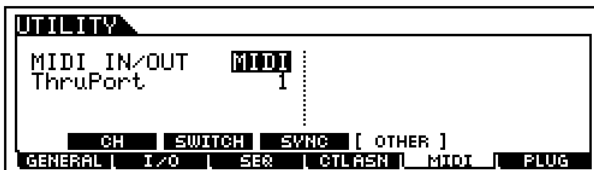
Determines the specific time code point from which sequence playback starts, when MTC is received. This feature can be used to accurately align playback of the RS7000 with an external MTC-compatible device.

Settings Hour : Minute : Second : Frame

Hour 00 ~ 23
Minute 00 ~ 59
Second 00 ~ 59
Frame 00 ~ 29

● [F5]-[SF4] MIDI Other

From this display you can set parameters related to the MIDI terminals and port number.

**• MIDI IN/OUT**

Determines which physical output terminal(s) will be used for transmitting/receiving MIDI data: MIDI IN/OUT/THRU, USB, or mLAN (when the optional mLAN8E has been installed).

Settings MIDI, USB, mLAN

[NOTE] Three types of terminals above cannot be used at the same time. Only one of them can be used to transmit/receive the MIDI data.

• ThruPort (Through Port)

Many computer sequencers are capable of transmitting data over several MIDI ports, effectively breaking the 16-channel barrier. When using the USB terminal for MIDI transmission/reception, you can have the MOTIF respond to MIDI data over one port, while relaying the data for another port number to a separate tone generator (connected to the MIDI OUT terminal). In this way, 16 channels of data can be played on the MOTIF and another 16 can be played on the connected device. Plug-in boards installed to the MOTIF can also be independently addressed via separate MIDI ports (page 38), further expanding the amount of channels. Make sure to set Thru Port to the intended port number of the connected device.

Settings 1 ~ 8

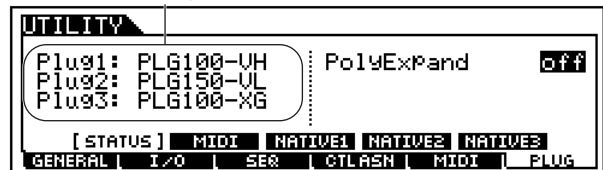
[F6] Plug-in board settings

When a Plug-in board is installed, the following displays and parameters are available. The particular parameters available depends on the type of Plug-in board that is installed.

[NOTE] An Effect Plug-in board can only be installed to slot 1, while a Multi-part Plug-in board can only be installed to slot 3. Single Part Plug-in boards can be installed to any of the three slots.

● [F6]-[SF1] Plug-in board Status

The name of the Plug-in Board is displayed.

**• PolyExpand**

This parameter is accessible only when you have two or three identical Plug-in boards installed on the MOTIF. The “off” setting enables two or three boards to work separately (you can select them in two or three different Parts). When this is set to “on,” the two boards effectively function together as one board (used in a single part) — giving you double the amount of polyphonic notes you can play at one time.

Settings on, off

● [F6]-[SF2] Plug-in board MIDI

From this display you can set various MIDI-related parameters for the Plug-in board.

UTILITY		[PLG100-VH]		
	DEVNO.	PORTNO.	GM/XG	
PLUG1	all	off		
PLUG2	all	off		
PLUG3	all	off	on	
STATUS [MIDI] NATIVE1 NATIVE2 NATIVE3				
GENERAL I/O SEQ CTRLASN MIDI PLUG				

● DevNo (Device Number)

Determines the MIDI Device Number of the Plug-in Board. This number must match the Device Number of the external MIDI device when transmitting/receiving bulk data, parameter changes or other system exclusive messages to/from it.

□ Settings 1 ~ 16, all, off

● PORT NO. (Port number)

Determines the MIDI Port number over which the Plug-in board receives MIDI data. One port can be set for the Multi-part Plug-in board and two ports can be set for the Single part Plug-in board.

□ Settings off, 1 ~ 3

NOTE The Port number for the Effect Plug-in board (VH) is fixed to 1.

● GM/XG

Determines whether “GM on” and “XG on” messages are recognized (on) or not (off). This parameter is available only when the Multi-part Plug-in board has been installed to slot 3.

□ Settings on, off

● [F6]-[SF3] Plug-in board Native System Parameters (Slot 1)

From this display you can set the Native System parameters of the Plug-in board installed to slot 1.

UTILITY		[PLG150-VL]		
WX Lip	Norm	BrthCtrl	BC	
BrthMode	BC/WX	BrthCurv	+00	
STATUS MIDI [NATIVE1] NATIVE2				
GENERAL I/O VOICE CTRLASN MIDI PLUG				

For details on these parameters, refer to the owner's manual of your particular Plug-in board.

● [F6]-[SF4] Plug-in board Native System Parameters (Slot 2)

From this display you can set the Native System parameters of the Plug-in board installed to slot 2. For details on these parameters, refer to the owner's manual of your particular Plug-in board.

● [F6]-[SF5] Plug-in board Native System Parameters (Slot 3)

From this display you can set the Native System parameters of the Plug-in board installed to slot 3. For details on these parameters, refer to the owner's manual of your particular Plug-in board.

Utility Job mode

In this Mode, you can restore your MOTIF's User memory (SRAM, see page 64) to the factory default settings (Factory Set).

When you restore the factory default settings, all the current settings for all the User voices and performances on the User Memory will be overwritten with the factory defaults.

Make sure you are not overwriting any important data. You should back up any important data to memory card/SCSI device beforehand.

◆ Factory Set (Restore Factory Defaults)

1 In the Utility mode, press the [JOB] button to enter the Utility Job mode.

2 Press the [ENTER] button. (The display prompts you for confirmation.)

3 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Job, press the [DEC/NO] button.

4 Press the [UTILITY] button to exit from the Utility Job mode back to the Utility mode.

NOTE All settings in the Utility mode that are related to the Plug-in boards and the mLAN8E are stored only to the memory on those respective devices, and not to the User memory of the MOTIF. Because of this, the Factory Set operation cannot be used to restore settings for those devices.

File Mode

Basic Structure (page 63)

Function Tree

This section is devoted to the File mode. To see how the File mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30.

The following detailed chart shows all of the display menus and parameter groups of the File mode — giving you a quick, easy-to-understand overview of the data storage and file-related functions of the MOTIF.

Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

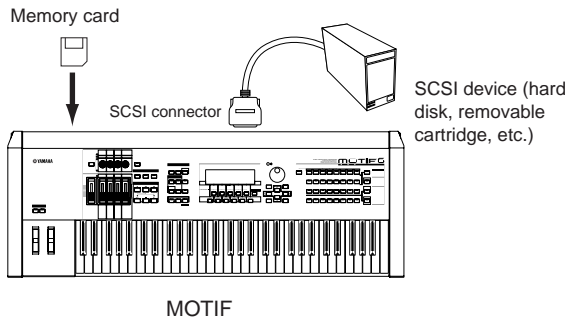
[FILE]		
	[INFORMATION] FILE INFORMATION	P. 276
	[F1] CONFIGURATION	P. 264
	[SF1] CURRENT DRIVE	P. 264
	[SF2] SCSI ID	P. 265
	[SF3] MOUNT	P. 265
	[SF4] FORMAT	P. 265
	[F2] SAVE	P. 266
	[F6] MAKEDIR	P. 266
	[ENTER] WAV/AIFF	P. 266
	[ENTER] MID	P. 266
	[F3] LOAD	P. 266
	[ENTER] VOICE	P. 266
	[ENTER] SONG	P. 266
	[ENTER] PATTERN	P. 266
	[ENTER] WAVEFORM	P. 266
	[F4] RENAME	P. 267
	[F6] MAKEDIR	P. 267
	[F5] DELETE	P. 267

File mode

Basic Structure (page 63)

In this mode, you can save data to and load data from memory cards and SCSI storage devices, such as hard disks and removable cartridges. The File mode also provides various functions for managing your data and SCSI devices.

With the File Utility software (on the included CD-ROM), you can use a computer to manage data stored to memory cards or SCSI devices — even use it to transfer data between the computer and the memory card/SCSI device.



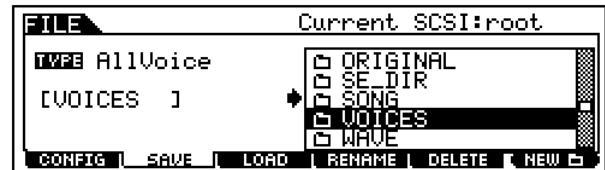
◆ Basic Procedure

- 1 Press the [FILE] button to enter the File mode. (The indicator lights.)
- 2 Select the desired menu by pressing the [F1] - [F6] buttons and execute each operation (Save, Load, and so on).
- 3 Press any other mode button to exit from the File mode.
 - For detailed instructions on step #2, see the explanations below.

File/Folder selection

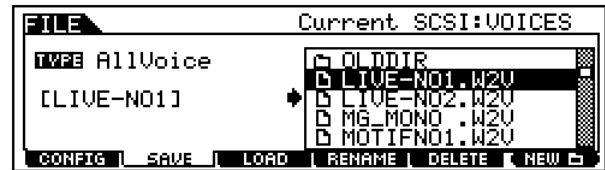
The illustrations and instructions below show you how to select files and folders on the memory card or SCSI devices within the File mode.

Move the cursor to the desired file or folder by using the [INC/YES] and [DEC/NO] buttons or the data dial.



To return to the next highest level, press the [EXIT] button.

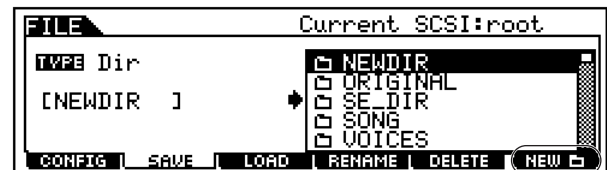
To go to the next lowest level, highlight the desired folder and press the [ENTER] button.



Move the cursor to the desired file or folder by using the [INC/YES] and [DEC/NO] buttons or the data dial.

New Folder Creation

From the Save display (called up via the [F2] button) and the Rename display (called up via the [F4] button), you can create new folders. This function lets you conveniently and easily organize the numerous important data files you create on the MOTIF.



You can create the new folder by pressing the [F6] button and naming.

File types that can be handled by the MOTIF

■ File types that can be saved from the MOTIF to the memory card/SCSI storage device

When you save your original data to User memory (page 63), the MOTIF organizes your data according to its type (as listed below), and automatically assigns a special three-letter extension to the file name corresponding to the type.

- **Wav** **Extension: .WAV**
A WAV file (Windows audio format) can be loaded to the MOTIF and can be used as a User Wave.
- **Aif (AIFF file)** **Extension: .AIF**
An AIFF file (Macintosh audio format) can be loaded to the MOTIF and can be used as a User Wave.

NOTE In addition to the file types above, Yamaha A5000/A4000/A3000/SU700 files and AKAI S1000/S3000 files can be loaded to the MOTIF.

■ File types that can be loaded from the Memory Card/SCSI storage device to the MOTIF when turning the power on (Auto Load file)

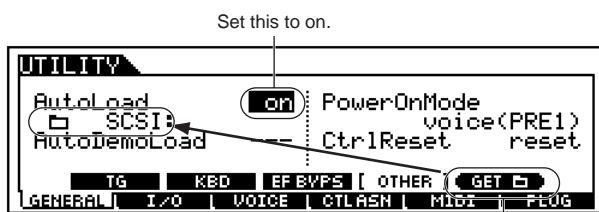
Among the file types described on page 262, “All”, “Plugin All Bulk 1”, “Plugin All Bulk 2” and “Plugin All Bulk 3” can be loaded from the Memory card/SCSI storage device to the MOTIF's User Memory automatically when turning the power on.

- 1 Name the files you wish to have load automatically when the power is turned on as described below, and save them together in a single folder.

File type	File name
All	AUTOLOAD.W2A
Plugin All Bulk 1 (for slot 1)	AUTOLD1.W2B
Plugin All Bulk 2 (for slot 2)	AUTOLD2.W2B
Plugin All Bulk 3 (for slot 3)	AUTOLD3.W2B

NOTE After you've finished naming the appropriate files, keep the corresponding folder selected in the display and go to step #2.

- 2 Press the [UTILITY] button to enter the Utility mode.
- 3 Press the [F1] button, then press the [SF4] button to show the Auto Load file display.
- 4 Set “Auto Load” to on, and press the [SF5] button.



Press the [SF5] button to register the device and folder selected in step #1 (the folder containing the desired files for auto loading).

- 5 Turn the power off.
- 6 Before turning the power on next time, make sure that the appropriate data is available to the MOTIF. In other words, make sure memory card specified in step #1 is properly inserted, or that the SCSI device specified in step #1 is properly connected.
- 7 Turn the power on. The MOTIF searches the device and specified folder for the auto-load files (the files you named and saved in step #1), and automatically loads them to User memory.

NOTE Any files in the device and folder registered in step #4 that do not have appropriate auto-load names are ignored.

■ File names

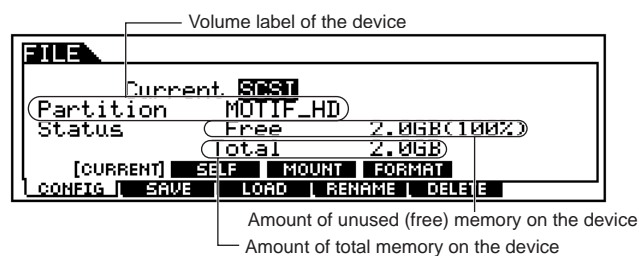
Files are named according to the MS-DOS naming convention. If the file name contains spaces and other characters unrecognized in MS-DOS, these characters will automatically be replaced by “_” (underscore) characters when saving.

For specific instructions on naming files, see page 267.

[F1] Configuration

The explanations here apply to step #2 of the Basic Procedure on page 262.

● [F1]-[SF1] CONFIG Currently recognized device



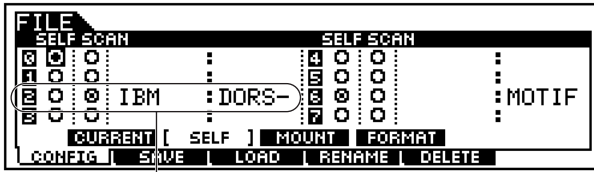
• Current

In this display you can select the device to be recognized by the MOTIF — a memory card inserted to the Card slot or a properly connected SCSI device.

- Settings Card, SCSI

● [F1]-[SF2] CONFIG SCSI ID

From this display you can specify the ID number for all the devices in the SCSI chain, including the host (the MOTIF itself).



The SCSI devices connected to and in use by the MOTIF are shown at the corresponding ID numbers, set on the devices themselves.

● SELF

Determines the ID number (0 - 7) for the MOTIF, as the SCSI host. If you change this setting, you'll need to turn the power off and on again for the new setting to take effect.

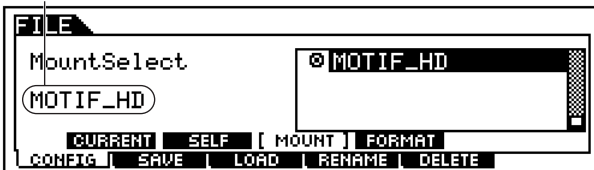
● SCAN

This control lets you mount each device in the SCSI chain, making sure that the MOTIF properly recognizes it. Move the cursor to the appropriate SCAN circle in the display, and press the [INC/YES] button to mark the circle and mount the corresponding device.

● [F1]-[SF3] CONFIG Mount

From this display you can select specific partitions for saving/loading data, within the device mounted in the SCSI ID display (above).

Volume label of the selected partition



● [F1]-[SF4] CONFIG Format

Before you can use a new Memory Card/SCSI device with the MOTIF, you will need to format it. Use this operation to format the memory card or SCSI device and assign a Volume Label to it.



● Type

Determines the type of the device to be formatted.

Settings See below.

card

When this is set, the Memory card inserted to the Card slot is formatted.

all (SCSI)

When this is set, all the SCSI devices connected to the MOTIF are formatted.

partition 1 ~ 4 (SCSI)

When this is set, one partition (specified at the bottom of the display) of the SCSI device connected to the MOTIF is formatted.

● Format

This parameter is available when the Type is set to “all (SCSI).” A hard disk (or any similar storage media) must be physically formatted before it can be logically formatted. Physical formatting (also called “low-level” formatting) arranges the disk into physical elements such as tracks and sectors.

Physical formatting is usually done by the manufacturer; you may not need to do it yourself. Logical formatting places a file system on the disk, allowing the MOTIF to access the disk.

You'll need to logically format any media you use before you can use it with the MOTIF.

Settings physical, logical

● Volume Label

Names the Volume Label. Refer to “Basic Operation” for instructions on naming on page 73.

NOTE Make sure to enter the Volume Label. An error message appears if you press the [ENTER] button without entering the Volume Label.

1 After setting the relevant parameters above, press the [ENTER] button. (The display prompts you for confirmation.)

2 After formatting has been completed, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Format operation, press the [DEC/NO] button.

! CAUTION

While formatting is in progress, never eject the Memory card or turn off the power to the MOTIF.

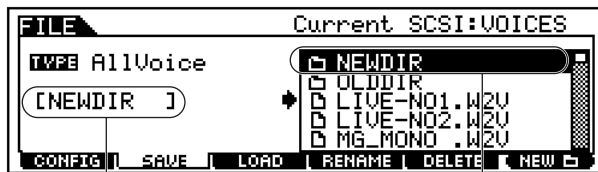
! CAUTION

If data is already saved on the memory card/SCSI device, be careful not to format it. If you format the memory card/SCSI device, all the previously recorded data will be deleted.

[F2] Save

This operation lets you save files to a memory card or SCSI device. The explanations here apply to step #2 of the Basic Procedure on page 262.

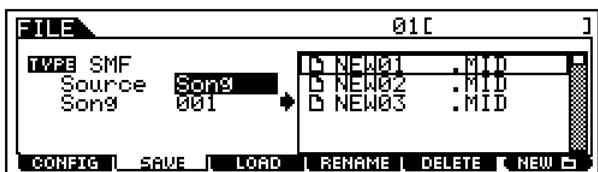
- 1 Select the file type to be saved in the Save display.



If you wish to create a new file, move the cursor to this position and enter the desired name. For instructions on naming, see "Basic Operation" on page 75.

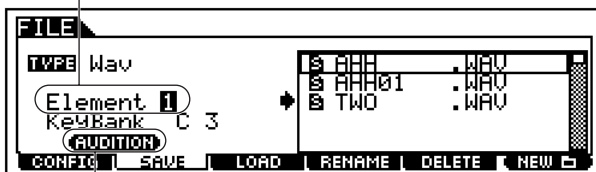
If you wish to create a new folder on the destination device (to which the data is saved), press the [SF6] button to name a new folder. For instructions on naming, see "Basic Operation" on page 75.

- When the file type "SMF" (Standard MIDI file) is selected, press the [ENTER] button to show the following display and select a Song or a Style/Section to be saved.



- When the file type "Wav" (WAV file) or "Aif" (AIFF format) is selected, press the [ENTER] button to show the following display and select a Wave to be saved.

When Key Bank is highlighted, you can select successive Key Banks by pressing the [SF2] button.



To hear the selected wave, press the [SF1] button.

- 2 If you wish to overwrite the existing file, move the cursor to the desired file to which the data is saved by using the Cursor buttons or the data dial.

- 3 Press the [ENTER] button to execute the Save operation.

- If you are about to overwrite an existing file, the display prompts you for confirmation. Press the [INC/YES] button to execute the Save operation, or press the [DEC/NO] button to cancel it.

- After the data has been saved, a "Completed" message appears and operation returns to the original display.

⚠ CAUTION

While the data is being saved, never eject the Memory card or turn off the power to the SCSI device or MOTIF itself.

NOTE Waveform data is not saved when the file type "All Voice for Editor" is selected.

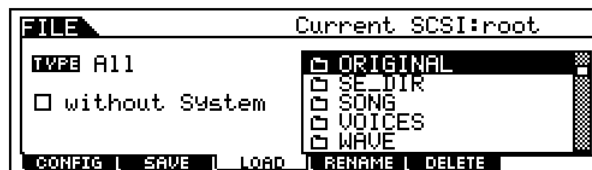
[F3] Load

This operation lets you load files from a memory card or SCSI device to the MOTIF.

The explanations here apply to step #2 of the Basic Procedure on page 262.

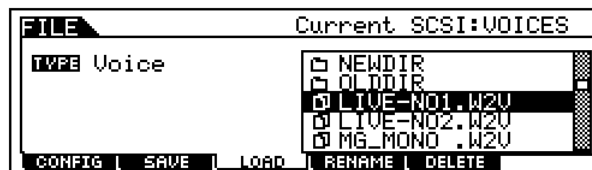
- 1 Select a file type (page 264) and a file to be loaded.

- When the file type is set to All, All Voice, Plugin All Bank 1 ~ 3, Usr ARP, All Song, All Pattern, All Waveform or All Voice for Editor, go to step #3. For any other file types, go to step #2.

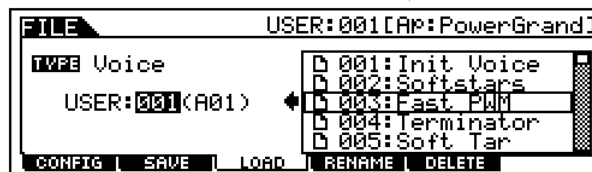


- 2 Specify the data to be loaded and the destination location in the User memory of the MOTIF. When the file (data) type is set to Voice, for example, follow the instructions as shown below.

This is an imaginary folder, shown in the display to contain the file(s) you'll be loading.



[ENTER] button



Specify the destination location in the User memory of the MOTIF.

Select a voice number to be loaded.

When the file (data) type is set to Song, Pattern, Waveform or All Voice for Editor, an “imaginary” file appears — just as with Voice above. Select the imaginary file and press the [ENTER] button to call up the list of songs, styles, or waveforms. Then select the desired song, style, or waveform and specify the destination User memory location.

NOTE If several Key Banks (comprised of waveform/WAV/AIFF files or recorded samples) are assigned to the same key/velocity range, only the first two assigned Key Banks will be used.

NOTE When files of the Yamaha A series samplers (A5000/4000/3000) are loaded, an “S” mark by the file name indicates the file contains only sample data and a “P” mark indicates program data (voice-related parameters and so on). When entering the File mode from the Voice/Performance mode, the “P” marked file can be loaded and the following two types can be selected instead of Waveform or Key Bank.

- Type 1 :
Only one sample is imported to a certain waveform. This type utilizes the various settings of the MOTIF, and the parameters corresponding to the four elements are also loaded. Extra samples are not loaded.
- Type 2 :
Several samples are imported to a certain waveform. Parameters corresponding to the four elements are not loaded to the MOTIF. Extra samples are not loaded.

NOTE When “All” is selected as a file type to be loaded, “ without System” appears in the display. If this box is checked and the Load is executed, all data with the exception of the system settings in the Utility mode are loaded.

- 3** Press the [ENTER] button to execute the Load operation. After the data has been loaded, a “Completed” message appears and operation returns to the original display.

CAUTION

While the data is being loaded, never eject the Memory card or turn off the power to the SCSI device or MOTIF itself.

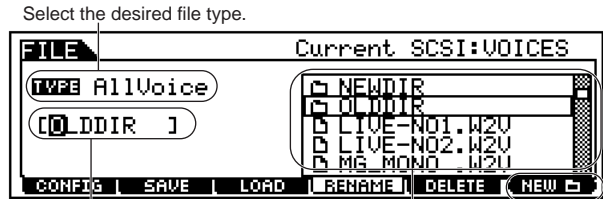
CAUTION

Loading data to the MOTIF automatically erases and replaces any existing data in the User memory. Make sure to save any important data to a memory card/SCSI device BEFORE performing any Load operations.

NOTE The MOTIF features a convenient Auto-load function that automatically loads user-specified files when you turn the power on. For details, see page 264.

[F4] Rename

From this display you can rename files in the selected memory card/SCSI device, using up to eight alphabetic and numeric characters.



Rename the selected file here. See "Basic Operation" on page 75.

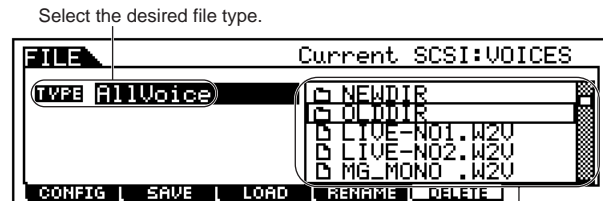
Select the file to be renamed.

If you wish to create a new folder on the destination device (to which the data is saved), press the [F6] button to name a new folder. For instructions on naming, see "Basic Operation" on page 75.

NOTE Files are named according to the MS-DOS naming convention. If the file name contains spaces and other characters unrecognized in MS-DOS, these characters will automatically be replaced by “_” (underscore) characters when saving.

[F5] Delete

From this display you can delete files from the selected memory card/SCSI device. Select the desired file as shown below, then press the [ENTER] button.



Select the file to be deleted.

Master Mode

Function Tree

This section is devoted to the Master mode. To see how the Master mode relates to the entire structure of the MOTIF and its other modes and functions, see the simplified chart in “Basic Structure” on page 30.

The following detailed chart shows all of the display menus and parameter groups of the Master mode — giving you a quick, easy-to-understand overview of the Master-related functions of the MOTIF.

Brackets around a word or phrase (e.g., [F1]) indicate specific button names or panel operations.

[MASTER]			
	[INFORMATION]	MASTER INFORMATION	P. 276
	[MASTER]	MASTER PLAY	P. 269
		[F1] MASTER PLAY	P. 269
		[F2] MASTER MEMORY	P. 270
	[EDIT]	MASTER EDIT	P. 270
		[COMMON]	COMMON
			[F1] NAME
			[F2] OTHER
		[1]-[4]	ZONE 1-4 (Performance Mode only)
			[F1] ZONE TRANSMIT
			[F2] ZONE NOTE
			[F3] ZONE TRANSMIT SWITCH
			[F4] ZONE PRESET
			[F5] ZONE KNOB/SLIDER ASSIGN
	[JOB]	MASTER JOB	P. 273
		[F1] INITIALIZE	P. 274
		[F4] BULK DUMP	P. 274
	[STORE]	MASTER STORE	P. 274

Master Play mode

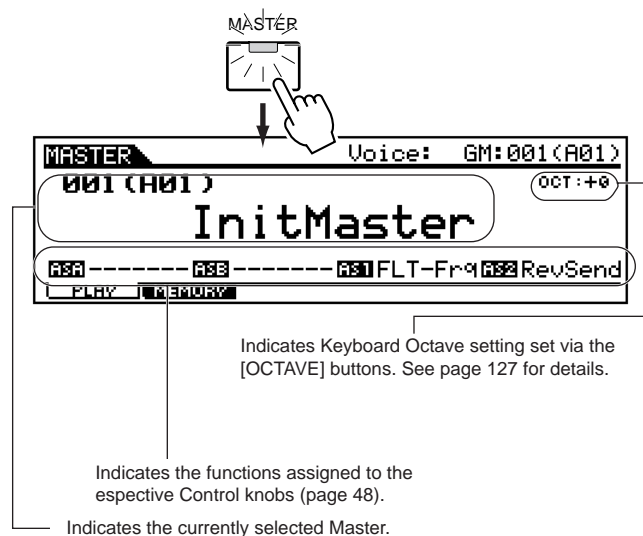
Basic Structure (page 56) - Quick Start Guide (page 93)

In this mode, you can select and play individual Masters.

NOTE For more information on Masters, their structure, and how they are used, see page 56.

◆ Basic Procedure

- 1 Press the [MASTER] button to enter the Master Play mode. (The indicator lights.)



- 2 Select a Master.
- 3 Set the Keyboard Octave or MIDI transmit channel.
- 4 Press the [F2] button to show the Memory display and set the basic parameters for Master play.

NOTE Zone edit is available only when the Zone Switch is set to on in the [F2] MEMORY display in the Master Play mode.
- 5 Store the settings edited in step #4 to the User memory as required.

NOTE If the Zone Switch is not set to on in the [F2] MEMORY display in the Master Play mode, the Number buttons [1] ~ [4] are not available.
- 6 Press any other mode button to exit from the Master Play mode.
 - For detailed instructions on steps #2 - #4, see the following explanations.
 - For details on step #5, refer to “Master Store mode” on page 274.

Master Selection

The explanations here apply to step #2 of the Basic Procedure, see above.

Selecting Masters is done in basically the same way as selecting voices (page 124), except for the following point.

- Since the MOTIF has no Preset Masters and provides only one User bank, selecting a bank is not necessary.

Keyboard Octave and Keyboard MIDI transmit channel setting

The explanations here apply to step #3 of the Basic Procedure on page 269.

These two parameters can be set for the selected Master. Setting these parameters is the same as in the Voice Play mode (page 124). Keep in mind that these parameters cannot be stored to the Master by using the Master Store mode (page 274).

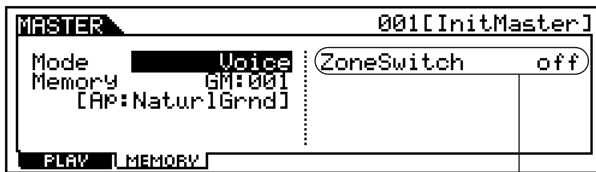
Master editing in the Master Play mode

The explanations here apply to step #4 of the Basic Procedure, see above.

The Master Play mode lets you perform a variety of general editing operations on the selected Master. For more detailed and comprehensive editing operations, use the Master Edit mode.

● [F2] Master Play Memory

From this display you can set basic parameters for the Master, including the mode that is called up with the Master and the program number.



This parameter is available only when the Mode is set to Performance.

● Mode

Determines the mode that is called up when the Master number is selected. Setting to Off here means that the mode is not changed even if the Master is selected.

- Settings Off, Voice, Performance, Pattern, Song

● Memory

Determines the Program number that is called up when the Master is selected.

- Settings: See below.

When the Mode is set to Voice	Select a voice bank and number. Refer to the instructions page 124
When the Mode is set to Performance	Select a performance bank and number. Refer to the instructions on page 162
When the Mode is set to Pattern	Select a style and section. Refer to the instructions on page 217
When the Mode is set to Song	Select a song number. Refer to the instructions on page 179

● Zone Switch

This is available only when the Mode is set to Performance.

This parameter determines whether the Zone function is used (on) or not (off). See page 272 for details about the Zone function.

- Settings on, off

Master Edit mode

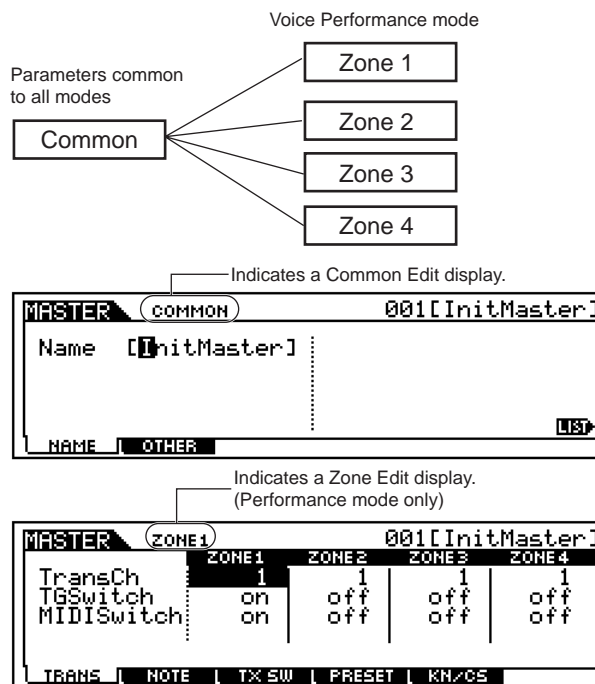
Basic Structure (page 56) - Quick Start Guide (page 95)

In this mode, you can create and edit Masters.

◆ Common edit and Zone edit (Voice Performance mode)

When memorizing Voice or Performance mode settings to a Master, you can add the zone-related settings to the existing voice or performance settings. For details on the zone features, see page 57.

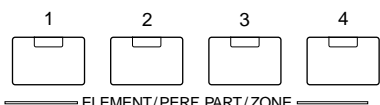
The Master Edit functions can be divided into two types: Common Edit (settings for all four of the zones), and Zone Edit (settings for each individual zone).



NOTE For details about recording methods, see page 57.

◆ Basic Procedure

- 1 Press the [MASTER] button to enter the Master Play mode. (The indicator lights.)
- 2 Select a Master to be edited.
- 3 Press the [EDIT] button to enter the Master Edit mode. (The indicator lights.)
 - When the Mode parameter in the Master Play Memory display is set to Song or Pattern, go to step #5.
 - When the Mode parameter in the Master Play Memory display is set to Voice or Performance, go to step #4.
- 4 Select a zone to be edited.
 - To edit parameters common to all of the zones, press the [DRUM KITS] button (which serves as a “COMMON” button here).
 - To edit parameters of the individual zones, select the desired zone with the corresponding NUMBER button, [1] - [4].



- 5 Select the menu you wish to edit by pressing the [F1] - [F6] buttons.
- 6 Edit the parameters for the selected Master.
- 7 Store the settings edited in step #6 to the User Memory as required.
- 8 Press the [EXIT] button to exit from the Master Edit mode.
 - For details on step #2, refer to “Master Play mode” on page 269.
 - For detailed instructions on steps #5 - #6, see the explanations below.
 - For details on step #7, refer to “Master Store mode” on page 274.

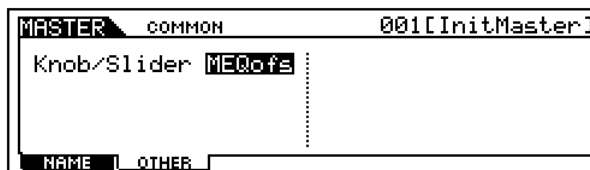
■ Common edit

● [F1] Common Name

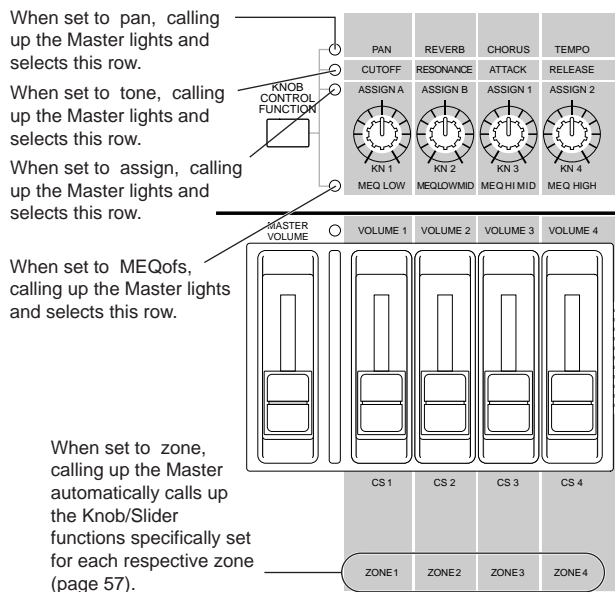
From this display you can create a name for the Master. For detailed instructions on naming, see “Basic Operation” on page 75.

● [F2] Common Other

From this display you can set which row of Knob/Slider functions will be lit and selected.



Settings pan, tone, assign, MEQofs, zone



NOTE The setting “zone” above is available only when the Zone Switch is set to on in the [F2] MEMORY display in the Master Play mode.

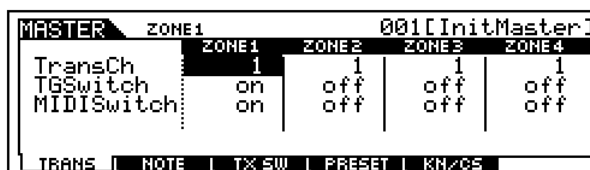
■ Zone Edit (Voice/Performance mode only)

NOTE Use the following Zone Edit functions to create your own sophisticated four-way splits and layers.

● [F1] Zone Transmit

Basic Structure (page 57)

From this display you can set how each zone transmits MIDI data when you play the keyboard.



- **TransmitCh (Transmit Channel)**
Determines the MIDI Transmit Channel for each zone.
 Settings 1 ~ 16
- **TGSwitch (Tone Generator Switch)**
Determines whether or not to transmit MIDI messages for each zone to each Part's tone generator block.
 Settings on, off
- **MIDISwitch**
Determines whether or not to transmit MIDI messages for each zone to an external MIDI device via the MIDI or USB terminal.
 Settings on, off

● **[F2] Zone Note**

From this display you can set the pitch- and keyboard-related parameters for each zone — allowing you to set up zone splits and determine the pitch range for each zone.

MASTER	ZONE1	ZONE2	ZONE3	ZONE4
Octave	+0	+0	+0	+0
Transpose	+0	+0	+0	+0
NoteLimitH	G 8	G 8	G 8	G 8
NoteLimitL	C -2	C -2	C -2	C -2

- **Octave**
Determines the amount in octaves by which the range of the zone is shifted up or down.
 Settings -3 ~ 0 (Default) ~ +3
- **Transpose**
Determines the amount in semitones by which the range of the zone is shifted up or down.
 Settings -11 ~ 0 (Default) ~ +11
- **NoteLimit H, L (High, Low)**
Determines the lowest and highest notes of the range for each zone. The selected zone will sound only when you play notes within this range.
 Settings C-2 ~ G8

NOTE You can also set the range directly from the keyboard, by holding down the [INFORMATION] button and pressing the desired low and high keys.

● **[F3] Zone Transmit Switch**

From this display you can set how the playing of each individual zone affects transmission of various MIDI data, such as Control Change and Program Change messages. When the relevant parameter is set to “on,” playing the selected zone will transmit the corresponding MIDI data. Note that two different display types are provided (see below). Each display type features the same settings in a different format; use the type you feel most comfortable with.

- **This display type shows the Transmit Switch status for all of the zones.**
Set the desired zone on or off, for the corresponding MIDI data type. Keep in mind that since all the available parameters cannot be simultaneously displayed, you will need to use the cursor controls to scroll the display in order to see and set the other parameters.
- **This display type shows all of the Transmit Switch settings for a single selected zone.**
Set the desired MIDI data type on or off for the selected zone. To select other zone, use the NUMBER [1] - [4] buttons (making sure that the [TRACK SELECT] button is on).

MASTER	ZONE1	ZONE2	ZONE3	ZONE4
Bank(TG)	off	off	off	off
PC(TG)	off	off	off	off
Bank(MIDI)	off	off	off	off
PC(MIDI)	off	off	off	off

[SF5] button ↓ ↑ [SF5] button

<input type="checkbox"/> Bank(TG)	<input checked="" type="checkbox"/> PB	<input checked="" type="checkbox"/> Knob	<input checked="" type="checkbox"/> Vol
<input type="checkbox"/> PC(TG)	<input checked="" type="checkbox"/> MW	<input checked="" type="checkbox"/> Slider	<input checked="" type="checkbox"/> Pan
<input type="checkbox"/> Bank(MIDI)	<input checked="" type="checkbox"/> ChAT	<input checked="" type="checkbox"/> FC1	<input checked="" type="checkbox"/> Sus
<input type="checkbox"/> PC(MIDI)	<input checked="" type="checkbox"/> BC	<input checked="" type="checkbox"/> FC2	<input checked="" type="checkbox"/> FS

● **[F4] Zone Preset**

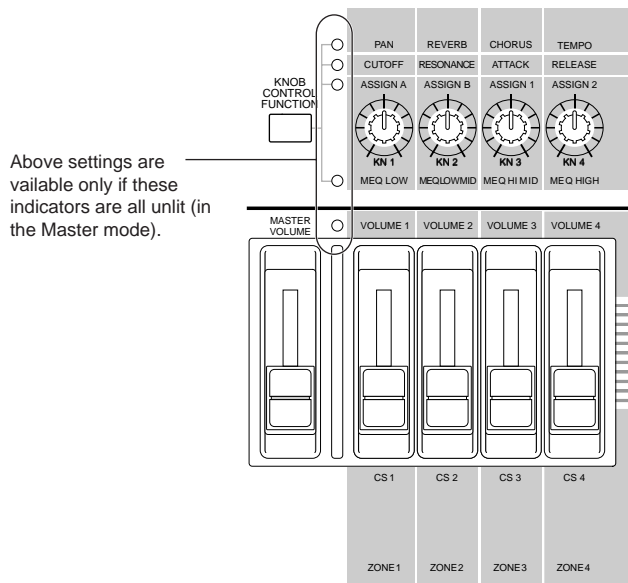
From this display you can make the voice-related settings for each zone, in the selected Master program number. In this way, selecting a different Master automatically calls up a completely different set of voices and voice-related settings for the four zones.

MASTER	ZONE1	ZONE2	ZONE3	ZONE4
BankMSB	000	000	000	000
BankLSB	000	000	000	000
PgmChange	001	001	001	001
Volume	100	100	100	100
Pan	C	C	C	C

- **BankMSB, BankLSB, PgmChange (Program Change)**
Determines the voice assignment for each zone in the selected Master.
 Settings Refer to the Voice List in the separate Data List booklet.
- **Volume**
Determines the output level of each zone.
 Settings 0 ~ 127
- **Pan**
Determines the stereo pan position of each zone.
 Settings L64 (Left) ~ C (Center) ~ R63 (Right)

● [F5] Zone Knob/Slider

From this display you can determine which Control Change numbers are used for the Knobs and Sliders for each zone. These settings are available only when the Knob/Slider parameter (in Common Edit Other; page 271) is set to “zone.”



Settings off, 1 ~ 95

Master Job mode

The Master Job mode contains two convenient operations (called “Jobs”) — one letting you initialize (reset) the Master data, and the other letting you transmit your edited Master data to an external MIDI device or computer.

◆ Basic Procedure

- 1 In the Master Play mode, select a Master you wish to execute the Job on.
- 2 Press the [JOB] button to enter Master Job Mode.
- 3 Select the Job menu you wish to execute by pressing the [F1] or [F4] button.
- 4 Set the parameters for executing the Job.
- 5 Press the [ENTER] button. (The display prompts you for confirmation.)
- 6 Press the [INC/YES] button to execute the Job. After the Job has been completed, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Job, press the [DEC/NO] button.

! CAUTION

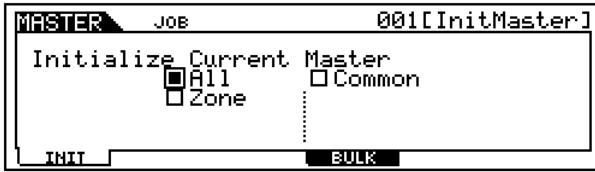
For Jobs that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

- 7 Press the [MASTER] button to exit from Master Job mode and return to Master Play mode.

- For detailed instructions on steps #3 - #4, see the explanations below.

● **[F1] Initialize**

This function lets you reset (initialize) all Master parameters to their default settings. It also allows you to selectively initialize certain parameters, such as Common settings, settings for each zone, and so on — very useful when creating a completely new Master from scratch.



- Parameter Type (for Initializing)

ALL

All settings for the selected Master are initialized.

Common

Common parameter settings for the selected Master are initialized.

Zone

You can initialize the zone setting to one of the following three types.

- **Split page 57**
- **4 Zones page 57**
- **Layer page 57**

- Parameters available when the Type parameter to be Initialized is set to Split or Layer.

UpperCh, LowerCh

When the Parameter Type above is set to “Zone - Split,” you can set separate MIDI transmit channels for the upper and lower keyboard sections (right of Split Point and left of Split Point, respectively). When the Parameter Type above is set to “Zone - Layer,” you can set separate MIDI transmit channels for two layers.

SplitPoint

This is available when the Type of parameter to be Initialized is set to Split. The range is C - 2 ~ G8.

● **[F4] Bulk Dump**

This function lets you send all your edited parameter settings for the currently selected Master to a computer or another MIDI device for data archiving.

NOTE You must set the correct MIDI Device Number in order to execute a Bulk Dump. For details, see page 258.

Master Store mode

Basic Structure (page 56)

This function lets you store your edited performance to User memory.

CAUTION

When you execute this, the settings for the destination memory will be overwritten. Important data should always be backed up to computer, a separate memory card or SCSI storage device.

◆ **Basic Procedure**

- 1 After editing the Master, press the [STORE] button to enter the Master Store mode.
- 2 Select the destination Master memory (number).
- 3 Press the [ENTER] button. (The display prompts you for confirmation.)
- 4 To execute the Store operation, press the [INC/YES] button. After the Master has been stored, a “Completed” message appears and operation returns to the original display.

NOTE To cancel the Store operation, press the [DEC/NO] button.

CAUTION

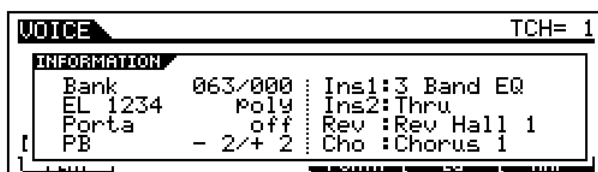
For Store operations that take longer to process, you will see the message “Executing...” during processing. If you switch off the power of the MOTIF while this message is displayed, you risk corrupting your data.

Appendix

Information Displays

The convenient Information displays let you see at-a-glance some of the more important settings relevant to each mode. Select the desired mode, then press the [INFORMATION] button to call up the Information display for that mode. To exit from the display, press the button again (or any other panel button).

■ Voice mode



- **Bank**

Indicates the Bank/Number (page 124) of the currently selected Voice.

- **EL 1234**

Indicates the currently selected voice, on/off status of four elements and mono/poly (page 128) status.

- **Porta (Portamento)**

Indicates the Portamento switch on/off status of the currently selected voice.

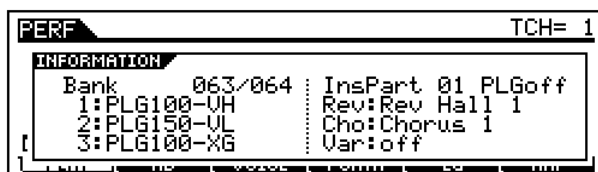
- **PB (Pitch Bend)**

Indicates the Upper/Lower setting of the Pitch Bend range.

- **Ins1 (Insertion 1), Ins2 (Insertion 2), Rev (Reverb), Cho (Chorus)**

Indicates the currently selected effect type for each effect block (page 137).

■ Performance mode



- **Bank**

Indicates the Bank/Number (page 162) of the currently selected Performance.

- **1 (Plug-in board 1), 2 (Plug-in board 2), 3 (Plug-in board 3)**

Indicates the installation status of the respective Plug-in board. The Plug-in board name is displayed at the right of the corresponding slot number. When PolyExpand (page 259) is set to on in the Utility mode, "P" is indicated at the left of the slot number.

- **InsPart (Insertion part), PLG (Plug-in Insertion part)**

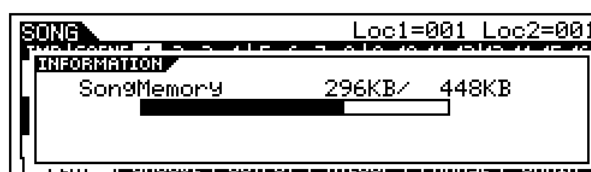
Indicates the part number to which the Insertion effect is applied and the part number to which the Plug-in Insertion effect is applied (when the PLG100-VH is installed).

- **Rev (Reverb), Cho (Chorus), Var (Variation)**

Indicates the currently selected effect type for each effect block (page 169).

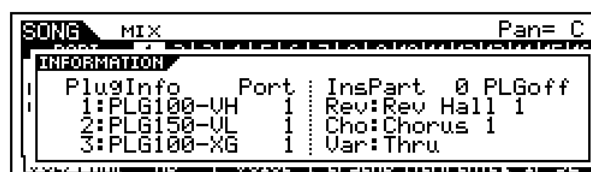
■ Song mode

- **Song Play mode**



Indicates the amount of currently unused (available) memory (DRAM) for song recording.

- **Song Mixing mode**



- **PlugInfo/Port (Plug-in board installation status)**

Indicates the Plug-in board name and its MIDI port number (page 260) at the right of the slot number. When PolyExpand (page 259) is set to on in the Utility mode, "P" is indicated at the left of the slot number.

- **InsPart (Insertion part), PLG (Plug-in Insertion part)**

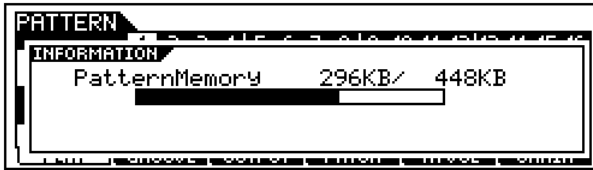
Indicates the part number to which the Insertion effect is applied and the part number to which the Plug-in Insertion effect is applied (when the PLG100-VH is installed).

- **Rev (Reverb), Cho (Chorus), Var (+ Variation)**

Indicates the currently selected effect type for each effect block (page 210).

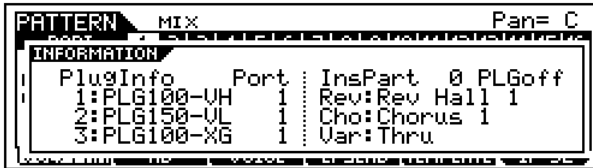
■ Pattern mode

● Pattern Play mode



Indicates the amount of currently unused (available) memory (DRAM) for Pattern Phrase recording.

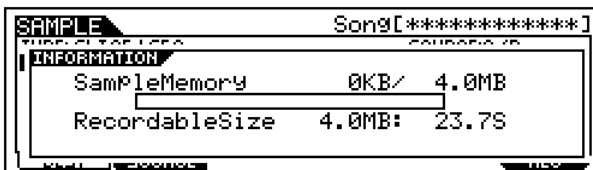
● Pattern Mixing mode



Same as in the Song Mixing mode.

■ Sampling mode

● Sampling mode



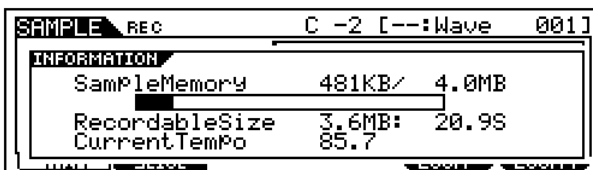
● SampleMemory

Indicates the amount of memory used by Sampling.

● Recordable Size

Indicates the amount of the available sampling memory (unused memory) and the available sampling time.

● Sampling mode (Trim display only)



● SampleMemory

Same as above.

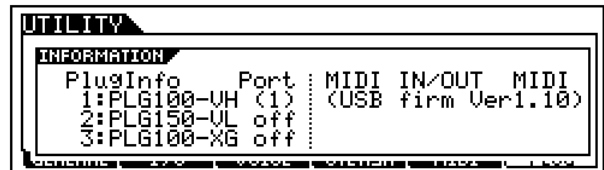
● Recordable Size

Same as above.

● Current Tempo

Indicates the calculated tempo when the Sample data playback of the range from the Loop Start Point to the End Point is treated as one measure.

■ Utility mode



● PlugInfo/Port (Plug-in board installation status)

Indicates the Plug-in board name and its MIDI port number (page 260) at the right of the slot number. When PolyExpand (page 259) is set to on in the Utility mode, "P" is indicated at the left of the slot number.

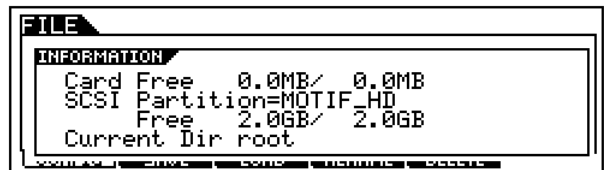
● MIDI IN/OUT

Indicates which physical output terminal(s) will be used for transmitting/receiving MIDI data: MIDI IN/OUT/THRU, USB, or mLAN (when the optional mLAN8E has been installed).

● (USB firm Ver)

Indicates the USB interface firmware version.

■ File mode



● Card Free

Indicates the amount of currently available (unused) memory of the Memory card inserted to the Card slot.

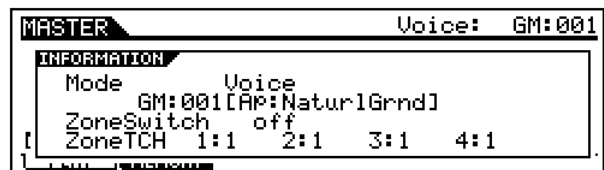
● SCSI Partition, Free

Indicates the mounted partition of the SCSI device connected to the MOTIF and its unused memory.

● Current Dir (Current Directory)

Indicates the currently selected directory.

■ Master mode



● Mode

Indicates the mode and program number memorized to the currently selected Master.

● ZoneSwitch

Indicates the on/off status of the Zone switch.

● ZoneTCH (Zone Transmit Channel)

Indicates the MIDI transmit channel of each zone (when the Zone Switch is set to on).

Display Messages

Messages	Information
MIDI buffer full.	Failed to process the MIDI data because too much data was received at one time.
MIDI data error.	An error occurred when receiving MIDI data.
MIDI checksum error.	An error occurred when receiving bulk data.
Bulk protected.	Bulk data or a SCSI message was received when RcvBulk was set to "protect." (See page 258.)
Device number is off.	Bulk data cannot be transmitted/received since the device number is off.
Device number mismatch.	Bulk data cannot be transmitted/received since the device numbers don't match.
Change internal battery.	The internal backup battery has no remaining power. Replace the battery.
Disk or card full.	The card or disk is full and no more data can be saved. Use a new card or disk, or make space by erasing unwanted data from the card or disk.
File not found.	The specified file was not found on the card or disk during a load operation. Try again after re-inserting/re-connecting the card or disk.
Bad disk or card.	The card or disk is unusable. Format the card or disk and try again.
Disk or card not ready.	A card or disk is not properly inserted in or connected to the MOTIF.
Disk or card unformatted.	The card or disk is not formatted, or the format is unusable by the MOTIF. Check the card/disk contents.
Disk or card write protected.	The card or disk is write protected, or you have attempted to write to a read-only medium such as CD-ROM.
Illegal disk or card.	The format type of the SCSI disk or Memory card is wrong.
Illegal file.	The file specified for loading is unusable by the MOTIF.
Illegal file name.	The specified file name is unacceptable. Try entering a different name.
Read only file.	You have attempted to delete, rename, or overwrite a read-only file.
Can't make folder.	No more directories can be created below the current level.
Folder is too deep.	Directories below this level cannot be accessed.
Unknown file format.	The file format type is not supported by the MOTIF.
SCSI error.	A SCSI error has occurred. Check the SCSI connections and termination.
Disk or card read/write error.	An error occurred while reading or writing to/from SCSI disk or Memory card.
Can't find associated files.	The file associated with the file to be loaded cannot be found.
Folder not empty	You attempt to delete a folder that contains data.
Unsupported disk	The disk (memory card or SCSI device connected to the MOTIF) is not supported by the MOTIF.
Seq memory full.	The internal memory for Sequence data is full. The internal memory for Sequence data is full, preventing any further operation (such as recording, editing, Job execution, MIDI reception/transmission, or loading from Memory card or SCSI drive). Try again after erasing unwanted song, pattern, or user phrase data.
Choose user phrase.	You have attempted to record a pattern track to which a preset phrase is assigned. If you wish to use a preset phrase as a starting data for pattern recording, copy it to a user phrase before recording.
No data.	When a Song/Pattern Job is executed, the selected track or range contains no data. Select an appropriate track or range.
Illegal check box.	No check boxes have been checked in a Sequencer track Job which requires a check box selection. Check the appropriate check box.
No F7 (End of Exc.)	Exclusive data has been entered or changed without the necessary "End of Exclusive" byte (F7). Make sure F7 is included.
Pattern length mismatch.	A Pattern Job will result in the length of a Pattern being greater than 256 measures.
Phrase length mismatch	A Pattern Job will result in the length of a phrase being greater than 256 measures.
Phrase number overflow	The maximum number of phrases (256) has been exceeded when recording, executing a Pattern Job, or editing.
Illegal input.	An unacceptable input or value has been specified. Check the input method or value.
Illegal track number.	An unacceptable track number has been specified in the Song/Pattern mode. Select the track again.
Illegal phrase number.	An unacceptable phrase number has been specified in the Pattern mode. Select the phrase again.
Illegal measure.	An unacceptable measure number has been specified in the Song/Pattern mode. Select the measure again.
Meter mismatch	In the Pattern Job mode, the meter (time signature) of the destination pattern is different from the meter of the source pattern.
Sample memory full.	The sample memory is full and further sampling operations, Jobs, or load operations cannot be executed.
Too many samples.	The maximum overall number of samples (8192) has been exceeded.
Sample is too short.	The sample length is too short and the Frequency Convert Job cannot be executed.
Sample freq is too low.	The sampling frequency is too low and the Frequency Convert Job cannot be executed.
Illegal sample data.	The sample file specified for loading is unusable by the MOTIF.
No sample data.	The linked sample files cannot be found during a load operation.
Sample is too long.	The sample size is too large and the Time Stretch Job cannot be executed.
SIMM configuration error.	An appropriate pair of expansion SIMMs is not properly installed, or the pair is not properly matched (page 287).
Multi plug-in is not in slot 3.	The Multi-Part Plug-in board does not work because it has not been installed to slot 3. The Multi-Part Plug-in board should be installed to slot 3.
Effect plug-in is not in slot 1.	The Effect Plug-in board does not work because it has not been installed to slot 1. The Effect Plug-in board should be installed to slot 1.
Plug-in 1 communication error.	The Plug-in board that has been installed to slot 1 does not work.
Plug-in 2 communication error.	The Plug-in board that has been installed to slot 2 does not work.
Plug-in 3 communication error.	The Plug-in board that has been installed to slot 3 does not work.

Messages	Information
Plug-in 1 type mismatch.	The User Voice created by using the Plug-in board previously installed to slot 1 (but now removed from slot 1) has been selected.
Plug-in 2 type mismatch.	The User Voice created by using the Plug-in board previously installed to slot 2 (but now removed from slot 2) has been selected.
Plug-in 3 type mismatch.	The User Voice created by using the Plug-in board previously installed to slot 3 (but now removed from slot 3) has been selected.
PLG100 not supported.	The Plug-in All Bulk Save function does not apply to the PLG100 series boards.
mLAN network error.	Indicates a problem in the mLAN8E network. Check the on/off status of the LED lamps on the mLAN8E and refer to the Owner's Manual of the mLAN8E.
mLAN connection error.	Indicates a problem in the mLAN8E connection. Check the on/off status of the LED lamps on the mLAN8E and refer to the Owner's Manual of the mLAN8E.
mLAN now in Mixer mode.	The mLAN8E board is set to the Mixer mode by your computer, and the MOTIF cannot control the mLAN8E.
mLAN error (xxx).	Indicates an unspecified problem related to the mLAN8E.
Copy protected.	You have attempted to export or save a copy-protected digital audio source.
Digital in unlocked.	Digital input signal of the AIEB2 is unlocked.
Too many favorites	You've attempted to assign more than 256 voices to the Favorite category.
Executing...	A format operation or job is being executed. Please wait.
Now working...	Indicates that the MOTIF is currently engaged in some operation, such as writing to/reading from the disk, etc.
Now loading... (xxxx)	Indicates that a file is being loaded.
Now saving... (xxxx)	Indicates that a file is being saved.
Now checking plug-in board.	The MOTIF is checking the Plug-in board installation status when powering the MOTIF on.
Recording stopped.	The Song/Pattern (phrase) recording is automatically stopped because the memory becomes full.
Receiving sample...	The MOTIF is receiving sample data from Wave Editor.
Transmitting sample...	The MOTIF is transmitting sample data to Wave Editor.
MIDI bulk receiving...	The MOTIF is receiving MIDI bulk data.
MIDI bulk transmitting...	The MOTIF is transmitting MIDI bulk data.
Completed.	The specified load, save, format, or other job has been completed.
Becomes valid after power on.	The newly entered SCSI ID number will take effect only by turning the power of the MOTIF off and on again.
Scene stored	A Song scene has been stored.
Mixing stored	In the Song/Pattern mode, the Mixing settings have been automatically stored.
Are you sure ? [YES]/[NO]	Confirms whether you want to execute a specified operation or not. Press [INC/YES] or [DEC/NO] as required.
Overwrite? [YES]/[NO]	A save operation will overwrite data on the Memory card or SCSI disk, and this message confirms whether it is OK to continue or not. Press [INC/YES] or [DEC/NO] as required.
Can't undo. OK? [YES]/[NO]	When some jobs of the Song/Pattern are executed, the internal memory becomes full and undo cannot be used. Press [INC/YES] if this is OK, or [DEC/NO] to abort the operation. Try again after erasing unwanted songs, patterns, or user phrases.

Troubleshooting

No sound? Wrong sound? When a problem like this occurs, please check the following points before assuming that the product is faulty. In many cases you'll find the solution to your problem here. If the problem persists, then contact your Yamaha dealer or service center (page 299).

No sound.

-
- Is the power of the MOTIF and any external equipment connected to the MOTIF turned on? page 29
 - Have you made all the appropriate level settings — including the Master Volume on the MOTIF and the volume settings on any connected external equipment? page 29
 - Is the Foot Controller pressed down (when it is connected to the FOOT CONTROLLER jack)? page 28
 - Is the MOTIF properly connected to related external equipment (e.g., amplifier or speaker) via audio cables? page 21
 - When the voice produces no sound, is the volume in the Voice common edit set appropriately? page 132
 - When the voice produces little or no sound, have you changed any of the CS slider settings? (The CS 1 - 4 sliders control the element levels in the voice. If all these are set to "0," the voice will not sound.) page 48
 - When the voice produces no sound, are the parameters in the Voice element edit (e.g., element switch, note limit, velocity limit) set appropriately in the Voice common edit? pages 137, 138
 - When the voice produces no sound, are the effect and filter settings appropriate? (Inappropriate filter cutoff frequency settings can result in no sound.) pages 137, 140
 - When the performance produces no sound, has a voice been assigned to each part? page 166
 - When the performance produces no sound, is the note limit of each part set appropriately? page 170
 - When the performance produces no sound, is the volume of each part set appropriately? page 172
 - When the performance produces little or no sound, have you changed any of the CS slider settings? (The CS 1 - 4 sliders control the part levels in the performance. If all these are set to "0," the performance will not sound.) page 48
 - When the performance produces no sound, is the output select of each part set appropriately? page 173
 - When the song/pattern playback produces no sound, are any or all of the tracks muted? pages 180, 218
 - When the song/pattern playback produces no sound, are the output channel of each track in the play mode and the receive channel of each part in the Mixing mode set appropriately? pages 210, 232
 - When the song/pattern playback produces no sound, is the volume of each part in the Mixing mode set appropriately? pages 211, 232
 - When the song/pattern playback produces no sound, is the output select of each part in the Mixing mode set appropriately? pages 211, 232
 - When the song/pattern playback produces no sound, is the MIDI filter set so that note-on messages are blocked in the Utility mode? page 255
 - When the arpeggio produces no sound, is the switch set to on? page 132
 - When the arpeggio produces no sound, are the note limit and velocity limit set appropriately? page 133
 - When the arpeggio produces no sound and the assigned arpeggio is a user one, does it have data? page 132
 - Isn't MIDI Local set to off in the Utility mode? page 258

Distorted sound.

-
- Are the effect settings appropriate? page 172
 - Are the filter settings appropriate? (Excessively high filter resonance settings can cause distortion.) pages 140, 173
 - Is the MASTER VOLUME set so high that clipping is occurring? page 29
 - Is the volume of each element in the Voice mode or the volume of each part in the Performance mode or the volume of each track/part in the Song/Pattern mode set too high? pages 145, 172, 211, 232

Sound level is too low.

-
- Are the MIDI volume or MIDI expression settings too low (by using the Foot Controller)? page 28
 - Is the cutoff frequency of the filters set too high/low? pages 140, 173
 - When the song/pattern playback produces the small sound, is the velocity offset in the Groove display set too low? pages 181, 218

Sound is cut off.

-
- Are you exceeding the maximum polyphony of the MOTIF? page 36

Pitch or intervals are wrong.

- Is the Master Tune parameter in the Utility mode set at a value other than “0”? page 250
- Is the Note Shift parameter in the Utility mode set at a value other than “0”? page 250
- When the voice produces a wrong pitch, is the appropriate tuning system selected from Micro Tuning parameter in the Voice Edit mode? page 130
- When the voice produces a wrong pitch, is the LFO Pitch Modulation Depth in the Voice Edit mode set too high? page 147
- When the performance produces a wrong pitch, is the Note Shift parameter of each part set at a value other than “0”? page 173
- When the performance produces a wrong pitch, is the Detune parameter of each part set at a value other than “0”? page 173
- When the song/pattern playback produces a wrong pitch, is the Note Offset parameter in the Groove display set at a value other than “0”? pages 181, 218

Only one note sounds at a time.

- Is the Mono/Poly parameter in the Voice mode set to “mono”? page 130

No effect is applied.

- Is the [EFFECT BYPASS] button turned off? page 13
- Have the [REVERB] and [CHORUS] buttons been turned fully counter-clockwise (to the minimum)? pages 48, 84
- Have any or all of the elements' Effect Output parameter been set to “thru”? page 137
- Have any or all of the effect types been set to “thru” or “off” (in the Effect display of the Voice Edit mode)? page 137

Song/Pattern cannot be started.

- Does the selected song or pattern (phrase) contain data? pages 179, 217
- Is the Remote Control turned on? page 13
- Is the MIDI sync parameter set to MIDI (using external clock) in the Utility mode? page 258

Song/Pattern (Phrase) cannot be recorded.

- Is there enough free memory for recording? The total MOTIF memory capacity determines the number of songs/patterns (phrases) that can be recorded. For example, if the memory contains songs/patterns (phrases) that use up a large amount of memory, the memory may become full even though the available pattern or song numbers are not all used. pages 275, 276
- In the Pattern Record mode, does the specified track to which the Phrase is assigned have preset data? Recording cannot be done to a track that contains preset data. page 221

Can't record samples.

- Have you exceeded the maximum allowable number of samples (key banks)? page 60
- Is there enough free sample memory? page 276
- Is the Sampling Source setting appropriate? page 236
- Is the Trigger mode set appropriately? page 237

Can't save data to the Memory card or the SCSI disk.

- Is the Memory card or SCSI disk being used write protected? (Write-protect should be set to off for saving data.) pages 289, 290
- Is the Memory card or SCSI disk being used properly formatted? page 265

MIDI bulk data transmission/reception won't work properly.

- Is the Receive Bulk parameter set to “protect” in the Utility mode? page 258

Plug-in board does not work.

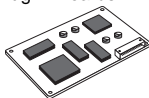
- Is the lamp of the corresponding slot number to which the Plug-in board has been installed lit? page 87
- Has the Vocal Harmony Plug-in board been installed to slot 2 or 3 ? (The VH board should be installed to slot 1.) page 282
- Has the Multi-part Plug-in board been installed to slot 1 or 2 ? (The Multi-part Plug-in board should be installed to slot 3.) page 282

Installing Optional Hardware

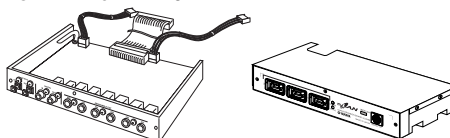
◆ Optional units that can be installed to the MOTIF

The following optional units can be installed to the MOTIF.

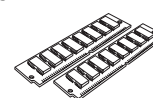
● Plug-in Boards



● AIEB 2 or mLAN8E



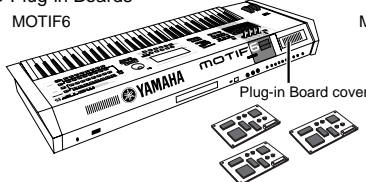
● SIMM



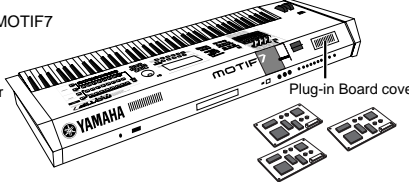
◆ Locations to which the optional units are installed

● Plug-in Boards

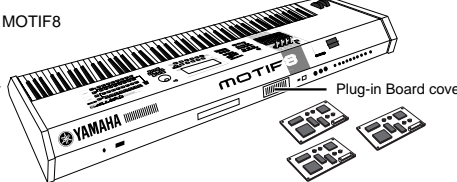
MOTIF6



MOTIF7



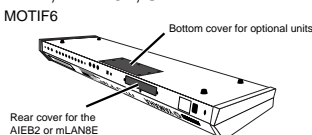
MOTIF8



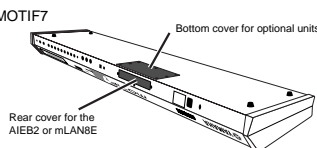
Up to three boards can be installed to the rear panel.

● AIEB2, mLAN8E, SIMM

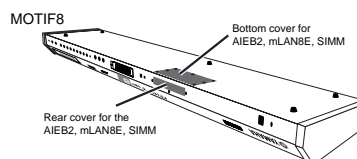
MOTIF6



MOTIF7



MOTIF8



◆ Installation Precautions

Before installing the optional hardware, make sure you have a Philips screwdriver.

! WARNING

- Before beginning installation, switch off the power to the MOTIF and connected peripherals, and unplug them from the power outlet. Then remove all cables connecting the MOTIF to other devices. (Leaving the power cord connected while working can result in electric shock. Leaving other cables connected can interfere with work.)
- Be careful not to drop any screws inside the instrument during installation (this can be prevented by keeping the optional units and cover away from the instrument while attaching). If this does happen, be sure to remove the screw(s) from inside the unit before turning the power on. Loose screws inside the instrument can cause improper operation or serious damage. If you are unable to retrieve a dropped screw, consult your Yamaha dealer for advice.
- Install the optional units carefully as described in the procedure below. Improper installation can cause shorts which may result in irreparable damage and pose a fire hazard.
- Do not disassemble, modify, or apply excessive force to board areas and connectors on optional units. Bending or tampering with boards and connectors may lead to electric shock, fire, or equipment failures.
- Before handling the optional units, you should briefly touch the metal surface to which the optional unit cover is attached (or other such metallic area — be careful of any sharp edges) with your bare hand so as to drain off any static charge from your body. Note that even a slight amount of electrostatic discharge may cause damage to these components.

! CAUTION

- It is recommended that you wear gloves to protect your hands from metallic projections on optional units and other components. Touching leads or connectors with bare hands may cause finger cuts, and may also result in poor electrical contact or electrostatic damage.
- Handle the optional units with care. Dropping or subjecting them to any kind of shock may cause damage or result in a malfunction.
- Be careful of static electricity. Static electricity discharge can damage the IC chips on the Plug-in board. Before you handle the optional Plug-in board, to reduce the possibility of static electricity, touch the metal parts other than the painted area or a ground wire on the devices that are grounded.
- Do not touch the exposed metal parts in the circuit board. Touching these parts may result in a faulty contact.
- When moving a cable, be careful not to let it catch on the circuit Plug-in board. Forcing the cable in anyway may cut the cable, cause damage, or result in a malfunction.
- Be careful not to misplace any of the screws since all of them are used.
- Do not use any screws other than what are installed on the instrument.

Optional Plug-in Board Installation

A variety of optional Plug-in boards sold separately let you expand the voice library of your instrument. The following types of Plug-in boards can be used with your instrument.

- PLG150-AN • PLG150-PF • PLG150-VL
- PLG150-DX • PLG100-XG • PLG100-VH

The MOTIF provides three slots for the Plug-in board. Therefore, up to three boards can be installed to the rear panel.

NOTE The Vocal Harmony Plug-in board (PLG100-VH) can installed only to slot 1.

NOTE The Multi part Plug-in board (PLG-100XG) can installed only to slot 3.

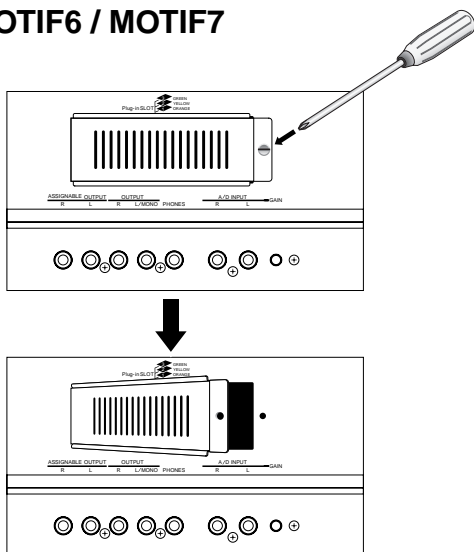
NOTE The Single part Plug-in board can installed to any of three slots.

1 Turn the MOTIF power off, and disconnect the AC power cord. Also, make sure to disconnect the MOTIF from any connected external devices.

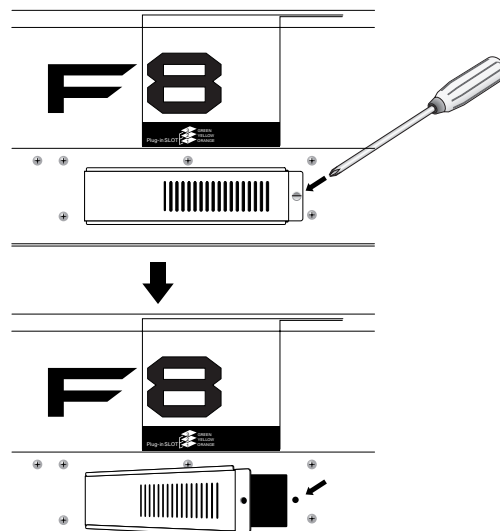
2 Remove the large screw from the expansion bay cover on the rear panel using a Phillips screwdriver.

IMPORTANT Keep the removed screw in a safe place. It will be used when attaching the cover to the MOTIF again.

MOTIF6 / MOTIF7

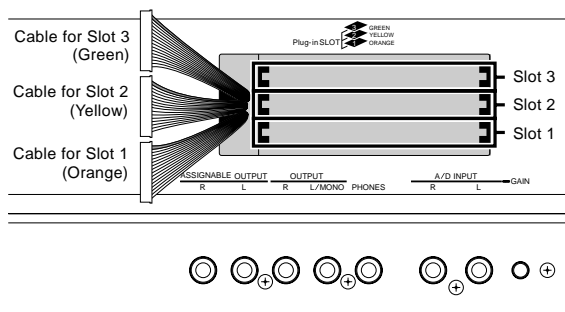


MOTIF8

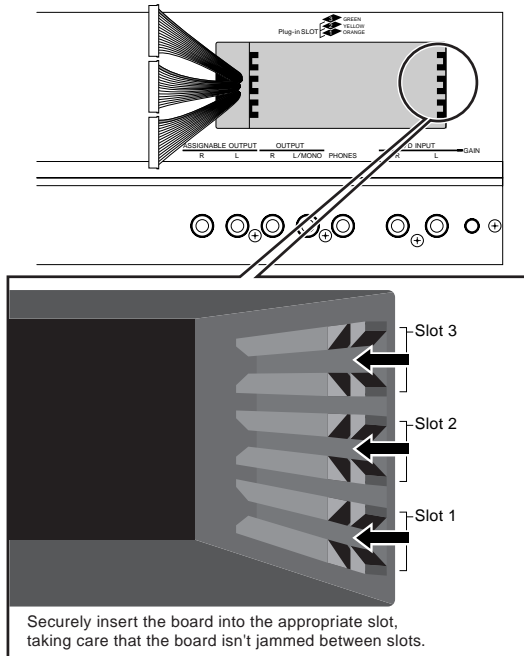


3 Remove the ribbon cables that are to be connected to the Plug-in board from the inside of the MOTIF. The slots are assigned to the color-coded cables as follows:

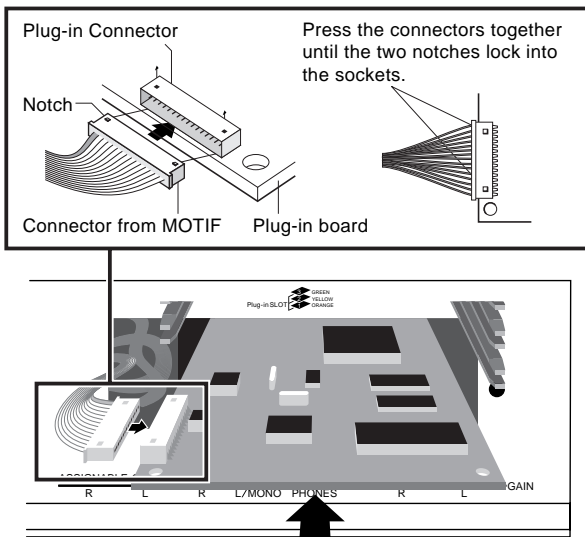
- Slot 1 — Orange
- Slot 2 — Yellow
- Slot 3 — Green



- 4** Insert the board along the guide rails about two-thirds of the way inside the MOTIF, with the connector side face up and toward you.

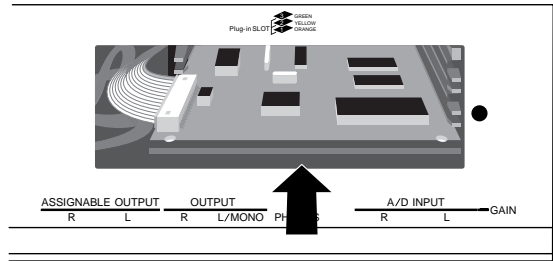


- 5** With the board still protruding slightly from the expansion bay, bring the cable end around and connect it to the board. Make sure to connect the proper cable, matching the color of the cable to the slot used. Also, take care not to pull on the cable too forcefully as you connect it to the board.



- NOTE** The Vocal Harmony Plug-in board (PLG100-VH) can be installed only to slot 1.
- NOTE** The Multi part Plug-in board (PLG-100XG) can be installed only to slot 3.

- 6** Insert the Plug-in board the rest of the way into the expansion bay. Carefully put the the ribbon cable back into the MOTIF, making sure that no part of the cable sticks out of the instrument.

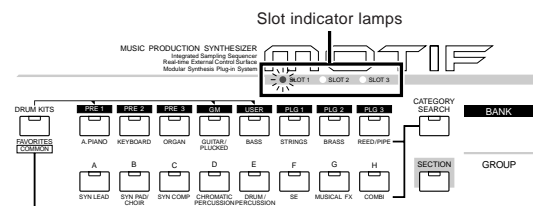


- 7** Replace the cover with the screw you removed in step 2 above. The Plug-in board is held in place by replacing the cover.

- 8** Check that the installed Plug-in board is functioning properly. Turn on the power.

- A message appears indicating that the installed Plug-in Board is being checked. The main display then appears and the corresponding slot indicator at the right top of the front panel lights. This indicates that the board has been successfully installed.
- If an error message appears, the MOTIF freezes after a while, indicating that the installation was not successful. If this happens, turn off the power and carefully go through the installation procedure again.

In this example, a Plug-in board has been installed to slot 1.



Optional AIEB2 or mLAN8E

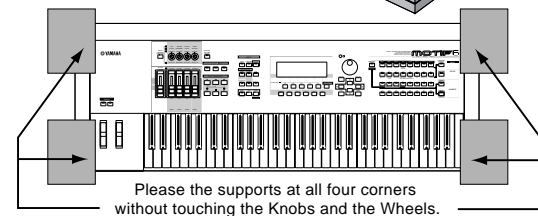
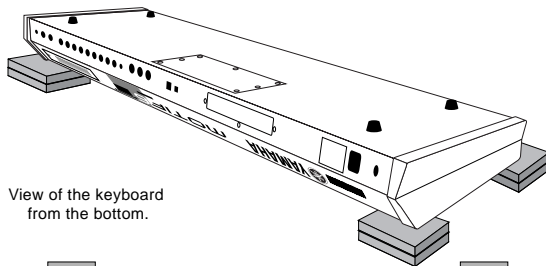
Installation

Either the mLAN expansion board (mLAN8E) or the I/O expansion board (AIEB 2) sold separately can be installed to the MOTIF.

With the mLAN8E board, you can conveniently and easily hook up your MOTIF to other mLAN-compatible instruments or devices. The AIEB 2 board gives you additional digital I/O options, featuring both optical and coaxial connectors. Moreover, the board also includes three stereo ASSIGNABLE OUTPUT pairs (six analog jacks).

Installing the AIEB2

- 1 Turn the MOTIF power off, and disconnect the AC power cord. Also, make sure to disconnect the MOTIF from any connected external devices.
- 2 Turn over the MOTIF so you can have direct access to the underside. To protect the Knobs and Wheels, place the keyboard so the four corners are supported by something that provides sufficient support like magazines or cushions.

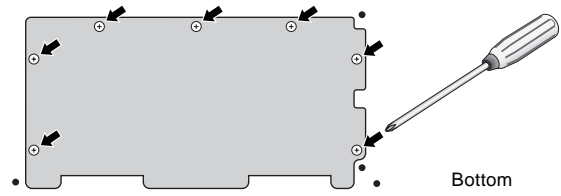


IMPORTANT Be careful not to drop or bump the keyboard and make sure that it is well balanced before proceeding.

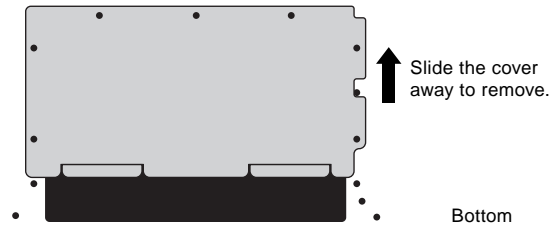
- 3 Remove the cover of the bottom. Unscrew the screws on the bottom using the driver by placing the back sides of the ripped over body facing to you (MOTIF6/ MOTIF7 has 7 screws and MOTIF 8 has 7 yellow screws.). Remove the cover from the body after unscrewing all the screws. For MOTIF6/MOTIF7 place the back side facing to you and slide the over toward front to remove the cover.

IMPORTANT Keep the removed screws in a safe place. They will be used when attaching the cover to the MOTIF again after installing the AIEB2.

MOTIF6 / MOTIF7

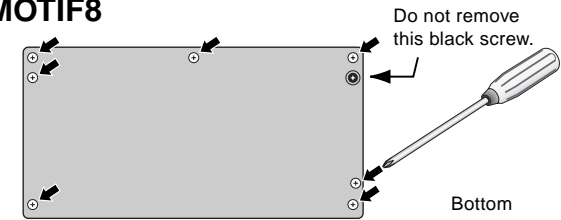


↓ Underside of the MOTIF



↓ Underside of the MOTIF

MOTIF8

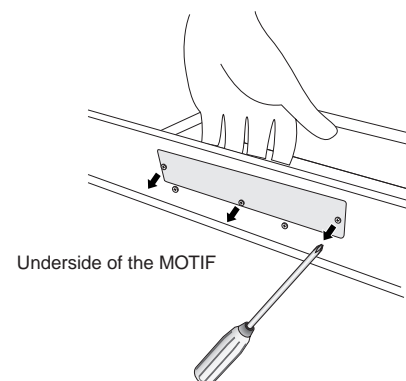


↓ Underside of the MOTIF



↓ Underside of the MOTIF

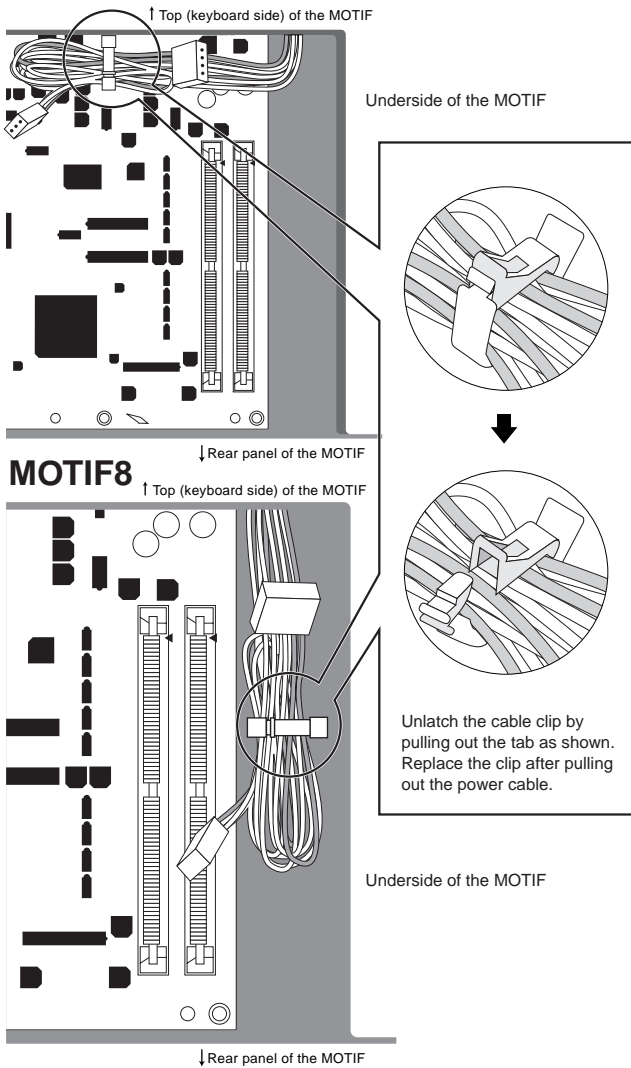
- 4 Remove the three screws from the rear cover while holding it from inside the MOTIF with your left hand.



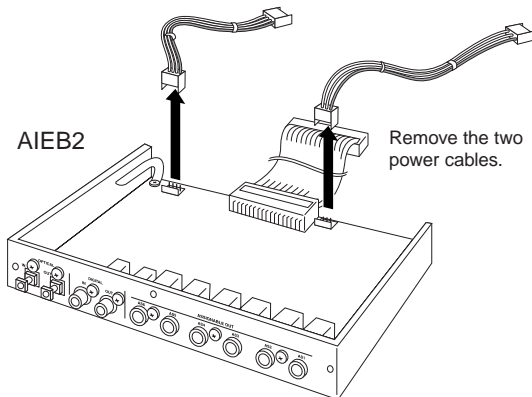
IMPORTANT Keep the removed screws in a safe place. They will be used when attaching the cover to the MOTIF again when the AIEB2 is removed in the future.

- 5** Remove the AIEB2 power cables from the hook-shaped cable clip in the MOTIF.

MOTIF6 / MOTIF7

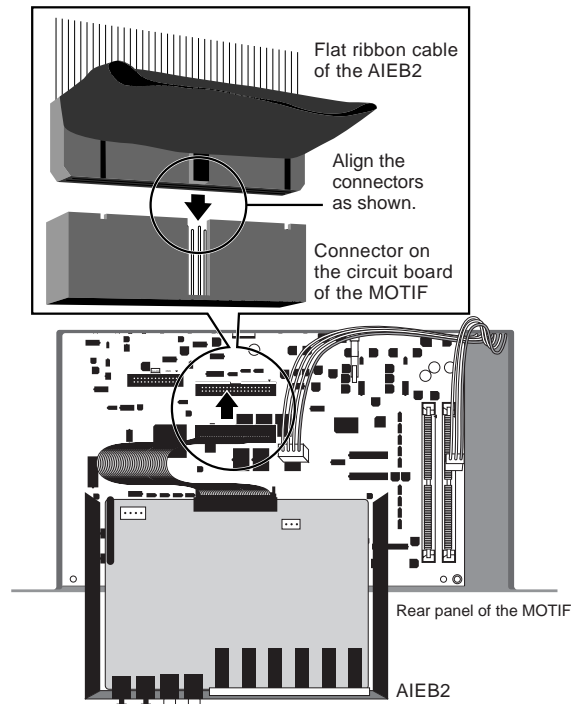


- 6** Remove the AIEB2 from its package. The AIEB2 has one flat ribbon cable and two power cables. Since these two power cables are used for the main body and are not needed when installing to the MOTIF, you can remove them from the AIEB2.

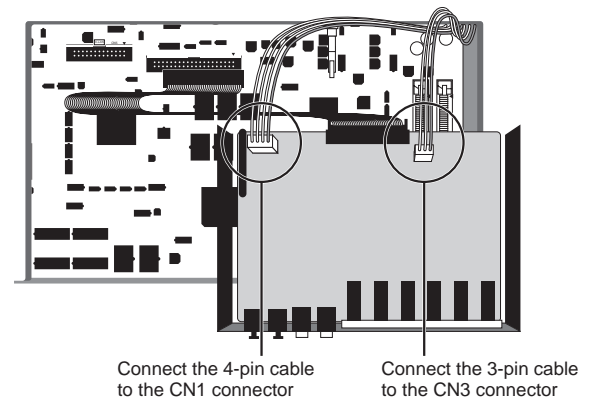


- 7** Connect the flat ribbon cable coming from AIEB2 to the circuit board of the MOTIF. Be careful to connect in the proper direction as shown.

IMPORTANT Make sure that the direction is correct and do not try to force the connection.



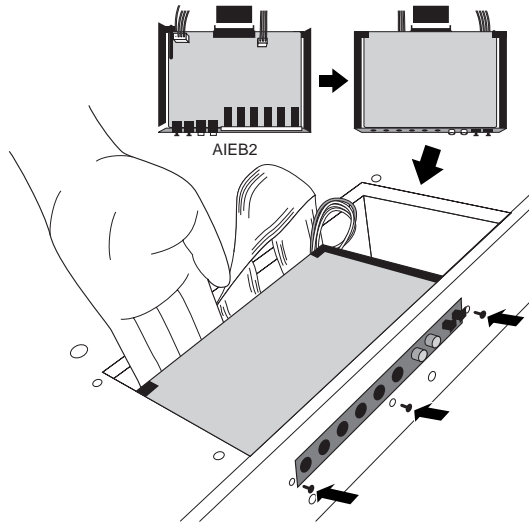
- 8** Connect the power cable coming from MOTIF to the AIEB2. Connect the 3-pin cable to the CN3 connector of the AIEB2, and the 4-pin cable to the CN1 connector.



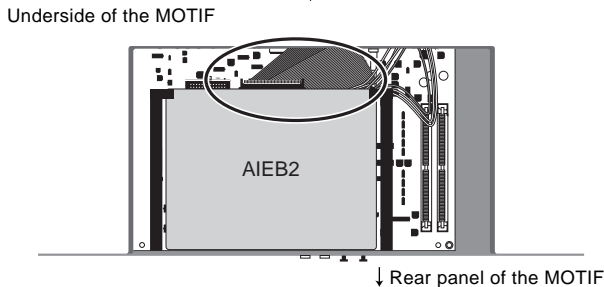
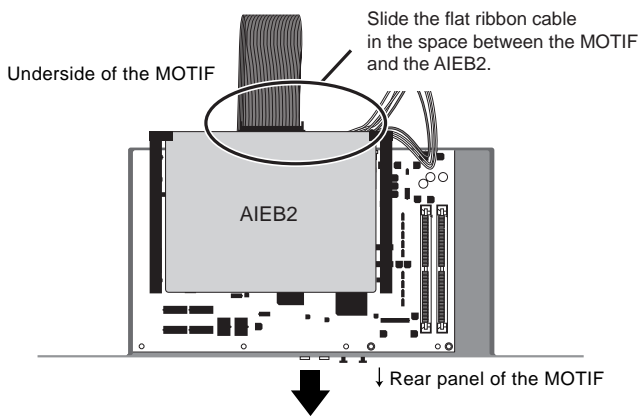
* Make sure to properly match the cables and connectors. Avoid applying excessive force when connecting.

- 9** Fasten the AIEB2 to the MOTIF. Flip the unit over, so that the bottom of the plate can be seen, and that each connector section of the AIEB2 can be seen from the back side of MOTIF. Supporting the unit with one hand, attach it to the rear of the MOTIF with the three screws you removed in step 4. If you start replacing the screws from the center screw, it will be easy to replace the remaining screws.

Flip over the AIEB2 taking care not to bend or damage the flat ribbon cable.



10 Let the ribbon cable fall into place between the AIEB2 and the circuit board of the MOTIF.

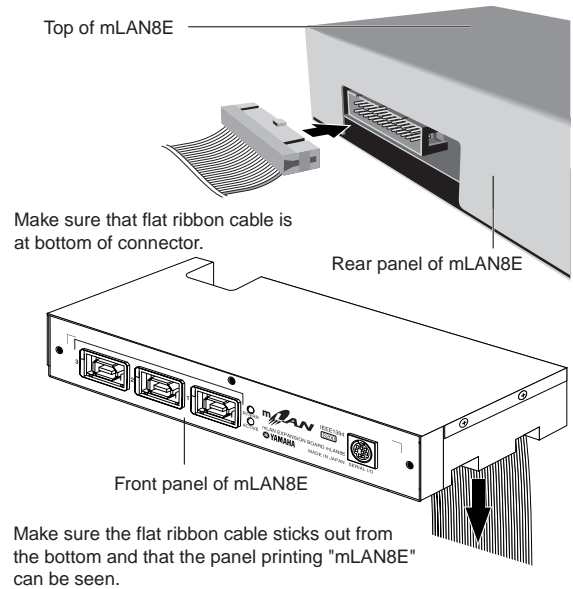


11 Re-install the cover you removed in earlier steps, in reverse order.

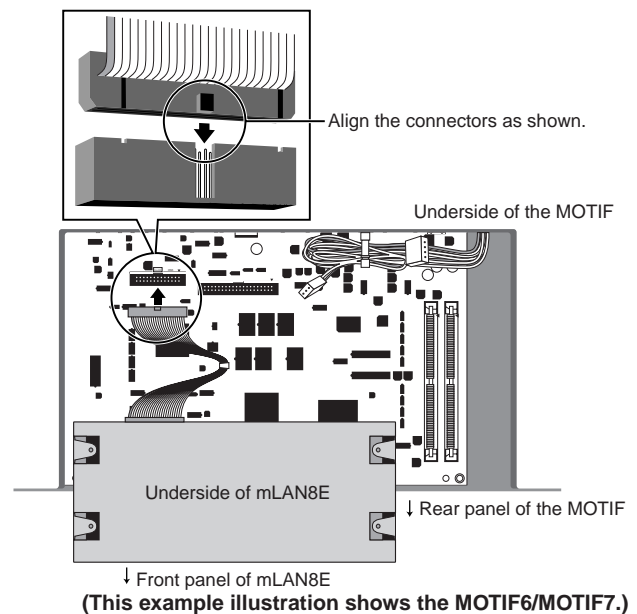
Installing the mLAN8E

1 Using the same procedure as in steps 1 - 4 of "Installing the AIEB2" above, remove the cover on the underside of the MOTIF, then remove the cover of the mLAN/I/O expansion bay.

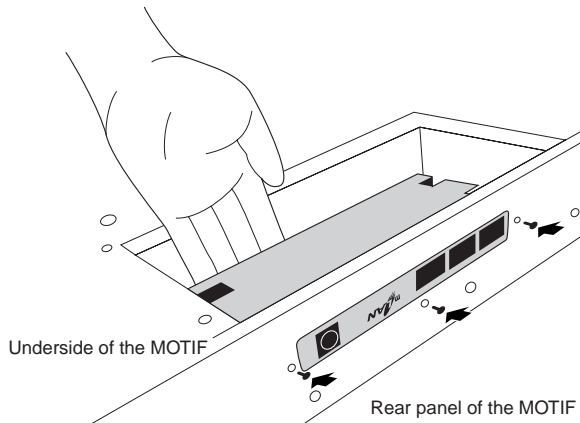
2 Remove the mLAN8E from its package and connect the included flat ribbon cable. Securely fasten the flat ribbon cable to the rear panel of the mLAN8E. Make sure that the ribbon is at the bottom, as shown.



3 Hold the mLAN8E upside down, and insert the connector on the other end of the flat ribbon cable, to the circuit board of the MOTIF.

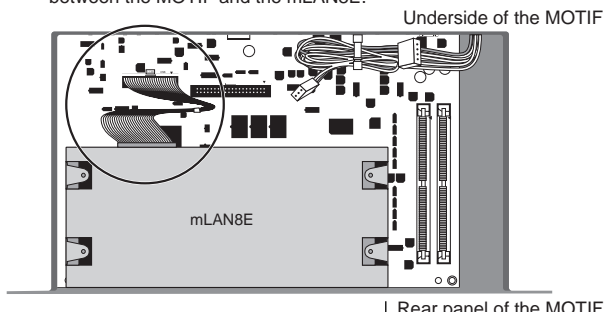


- 4** Fasten the mLAN8E to the MOTIF. Flip the unit over, so that each connector section of the mLAN8E can be seen from the back side of MOTIF. Supporting the unit with one hand, attach it to the rear of the MOTIF with the three screws you removed earlier. If you start replacing the screws from the center screw, it will be easy to replace the remaining screws.



- 5** Let the ribbon cable fall into place between the mLAN8E and the circuit board of the MOTIF.

Slide the flat ribbon cable in the space between the MOTIF and the mLAN8E.



(This example illustration shows the MOTIF6/MOTIF7.)

- 6** Re-install the cover you removed in earlier steps, in reverse order.

Optional SIMM Installation

You can increase the MOTIF's sampling memory by installing commercially available SIMMs (single in-line memory modules). This section explains how to carry out the installation.

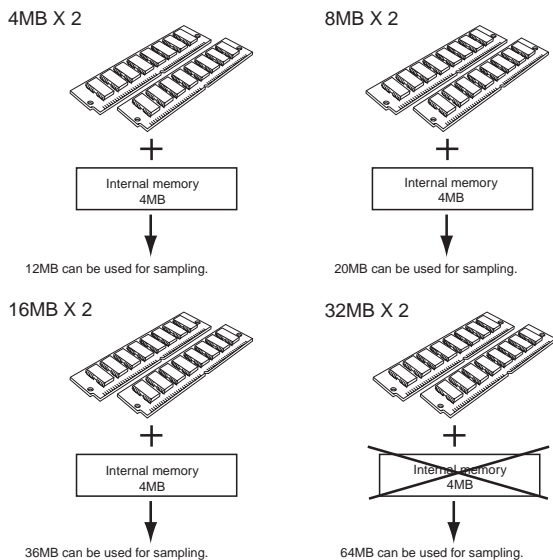
Important Information about Purchase of Expansion SIMMs for the MOTIF

The MOTIF does not necessarily support all commercially available SIMMs. Before purchasing SIMMs, please consult your Yamaha dealer or an authorized Yamaha distributor (see list at end of the Owner's Manual) for advice.

Note that Yamaha cannot assume responsibility for SIMM malfunctions.

SIMM Type and SIMM Configuration

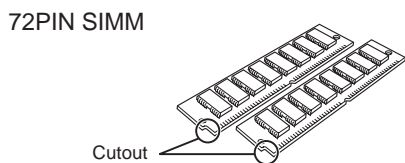
- You need to use 72-pin SIMMs with access time of 70ns or less. The SIMM module size may be 4MB, 8MB, 16MB, or 32MB. The MOTIF is designed for use with 32-bit (parity non-type) SIMMs, but can also accept installation of 36-bit (parity-type) SIMMs.
- When purchasing SIMMs, make sure that the SIMM design does not utilize more than 18 memory chips per module. (SIMMs comprised of more than 18 chips do not operate correctly on the MOTIF.)
- SIMMs must be installed in pairs: you can install two SIMMs.
- The MOTIF ships with 4MB of sampling memory installed, and is capable of accessing up to 64MB. See the following illustrations for details. For example, if you add a pair of 16MB SIMMs, for example, you increase the available sampling memory to a total of $(4 + 16 \times 2 =)$ 36MB. If you install a pair of 32MB SIMMs, however, the sampling memory size becomes 64MB (and the original 4MB are effectively disabled).



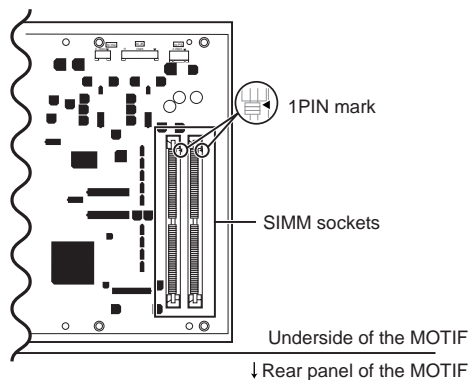
- Yamaha recommends that you purchase SIMMs that conform to the JEDEC* standard. Please be aware, however, that conformance to this standard does not constitute a guarantee that the SIMMs will operate correctly on the MOTIF.
- JEDEC (Joint Electron Device Engineering Council) sets standards for terminal configurations within electronic devices.

SIMM Installation

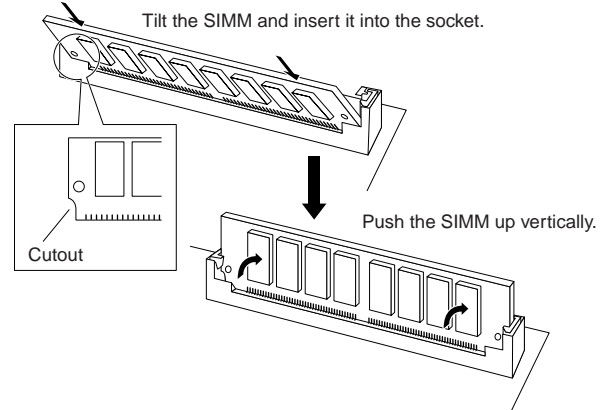
- 1 Use the same operation as in “Installing the AIEB2.”
- 2 On the SIMM, there is a cut in the board next to the 1PIN. Insert the board into the socket so that the 1PIN lines up with the 1PIN mark (▲) printed on the board.



Location for SIMM Installation

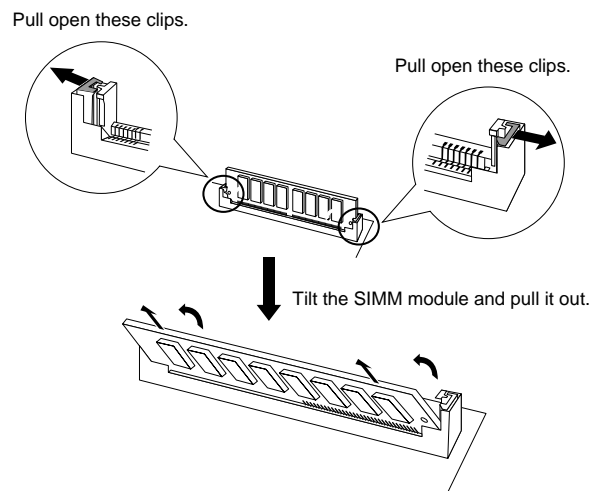


Installing the SIMM modules to the sockets



NOTE Make sure that the SIMM is securely inserted in the socket of the MOTIF. Inserting the SIMM improperly or incompletely may result in faulty operation.

- * To remove the SIMM, gently but firmly pull the fastening clips open, then tilt the SIMM back and pull it out.



- 3 Set the SIMM into the socket at an angle as shown in the illustration above (1). Then push the SIMM upright until it clicks into the position shown in figure
- 4 Insert the remaining SIMM into the remaining socket.
- 5 Re-install the cover you removed in earlier steps, in reverse order.
- 6 Check that the installed SIMMs are functioning properly. Set the MOTIF right-side up, and connect the power cord to the rear-panel AC INLET jack and an AC outlet. Turn on the power, go to the SAMPLING display, and press the [INFORMATION] button (page 276). If the SIMMs have been installed properly, the appropriate available memory size is indicated in the display.

Handling the Memory Card (SmartMedia™*)

Be sure to handle Memory Cards with care. Follow the important precautions below.

* SmartMedia is a trademark of Toshiba Corporation.

■ Compatible Memory Card Type

3.3V(3V) Memory Cards can be used. 5V type Memory Cards are not compatible with this instrument.

■ Memory Capacity

There are five types of Memory Cards: 2MB/4MB/8MB/16MB/32MB. A Memory Card with the memory capacity exceeding 32MB can also be used if it conforms to the standards of SSFDC (Solid State Floppy Disk Card: another name of SmartMedia) Forum.

■ Inserting/Removing Memory Cards

• To insert a Memory Card:

Hold the Memory Card so that the connector section (gold) of the Memory Card is facing downward and forward, towards the Memory Card slot. Carefully insert the Memory Card into the slot, slowly pushing it all the way in until it is fitted in place.

NOTE Don't insert the Memory Card in wrong direction. Don't insert anything other than a Memory Card in the slot.

• To remove a Memory Card:

Before removing the Memory Card, be sure to confirm that the Memory Card is not in use, or it is not being accessed by the instrument. Then pull the Memory Card out slowly by hand. If the Memory Card is being accessed*, a message indicating that it is in use appears on the instrument's display.

* It includes saving, loading, formatting, deleting and making directory. Also, be aware that the instrument will automatically access the Memory Card to check the media type when it is inserted while the instrument is turned on.

CAUTION

Never attempt to remove the Memory Card or turn the power off during accessing. Doing so can damage the data on the instrument/Memory Card and possibly the Memory Card itself.

■ Formatting Memory Cards

Before using a Memory Card with your instrument it must first be formatted. Once it is formatted all data on it will be erased. Be sure to check if the data is unnecessary for you or not, beforehand.

NOTE The Memory Cards formatted with this instrument may become unusable with other instruments.

■ About the Memory Cards

• To handle Memory Cards with care:

There are times when static electricity affects Memory Cards. Before you handle Memory Cards, to reduce the possibility of static electricity, touch the metal parts such as a door knob and aluminum sash. Be sure to remove the Memory Card from the Memory Card slot when it is not in use for a long time. Do not expose the Memory Card to direct sunlight, extremely high or low temperatures, or excessive humidity, dust or liquids.

Do not place heavy objects on a Memory Card or bend or apply pressure to the Memory Card in any way. Do not touch the metal part (gold) of the Memory Card or put any metallic plate onto the metal part. Do not expose the Memory Card to magnetic fields, such as those produced by televisions, speakers, motors, etc., since magnetic fields can partially or completely erase data on the Memory Card, rendering it unreadable.

Do not attach anything other than the provided labels to a Memory Card. Also make sure that labels are attached in the proper location.

• To protect your data (Write-protect):

To prevent inadvertent erasure of important data, stick the write-protect seal (provided in the Memory Card package) onto the designated area (within a circle) of the Memory Card. Conversely speaking, to save data on the Memory Card, make sure to remove the write-protect seal from the Card. Do not reuse the seal that is peeled off.

■ Data Backup

For maximum data security Yamaha recommends that you keep two copies of important data on separate Memory Cards. This gives you a backup if one Memory Card is lost or damaged.

■ Burglarproof Lock

This instrument is equipped with a burglarproof lock for the Memory Card. If necessity arises, mount the burglarproof lock onto the instrument.

To mount the burglarproof lock:

- ① Remove the metallic part using a Phillips screwdriver.
- ② Turn the metallic part upside down and then mount it again.

Connecting external SCSI devices

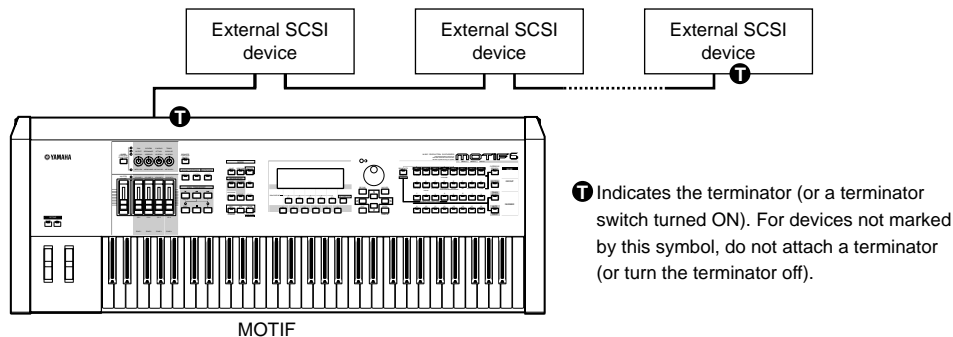
This section explains how to connect external devices such as external hard disk drives, MO drives, or CD-ROM drives.

About SCSI

SCSI (pronounced “scuzzy”) stands for Small Computer System Interface, and is a data transmission interface standard used by personal computers and other devices.

Since the MOTIF has a SCSI interface, you can connect and use hard disk drives, MO disk drives, CD-ROM drives, and other SCSI-compatible devices that have a 50-pin SCSI connector. Up to 7 SCSI devices can be connected. Most external SCSI devices have two SCSI terminals, allowing a number of devices to be “chained” together. Devices chained together in this way can normally be connected in any order.

The last device in the chain must be “terminated,” either with a terminator unit plugged into the open SCSI connector, or by turning the device's internal terminator on (if available). The first device in the chain must also be terminated, but in the case of the MOTIF this is accomplished by the terminator inside the MOTIF.



IMPORTANT

- Before connecting SCSI devices, be sure to turn off the power of the MOTIF and all connected equipment. If the power is on while connections are being made, the MOTIF or SCSI devices can be damaged.
- Including the MOTIF, each SCSI device is distinguished by a number from 0 - 7, called the SCSI ID. If two or more devices have the same SCSI ID number, the SCSI devices will not function correctly. When shipped from the factory, the MOTIF is set to SCSI ID 6. Be aware that the SCSI ID number of a device has no relation to its position in the daisy-chain.
- Don't forget to attach a terminator to the last SCSI device in the daisy-chain.
- If an external SCSI device is not connected, it is not necessary to attach a terminator to the external SCSI connector of the MOTIF.
- Use as short a SCSI cable as possible. Using long cables can cause unreliable operation. In general, the total cable length should be less than 6 meters (approximately 18 feet).
- Use high-quality SCSI cables. Poor-quality cables can cause unreliable operation.
- Some SCSI devices have only one SCSI connector. If you are using such a device, connect it at the end of the daisy-chain.

Procedure

- 1 **Use SCSI cables to daisy-chain the external SCSI devices.**
Since there are several different types of SCSI connectors, make sure to select the proper SCSI cables for your particular devices.
- 2 **Connect the power cable of the external SCSI device to an AC outlet.**
- 3 **Set the SCSI ID (0 - 7) of the external SCSI device.**
Select a SCSI ID that will not conflict with the other SCSI devices (including the MOTIF). When the MOTIF is shipped from the factory, the SCSI ID is set to 6.

- 4 Attach the terminator to the SCSI connector (whichever one of the two is not connected) of the last device in the daisy-chain. Alternatively, turn on the terminator switch of that device.**
- 5 Make sure that the terminator switch is turned OFF for all other devices in the daisy-chain (i.e., all devices other than the last device).**
- 6 Turn on the power of the external SCSI device(s), and after waiting several seconds, turn on the power of the MOTIF.**

NOTE

.....

Many articles and books concerning SCSI are available. However most of them discuss only the concepts or the specification, and do not tell you what to do if the system does not work when connected as described. The following paragraphs will provide more information about SCSI that will help you correct problems which may occur when SCSI devices are connected. Please read this material if you experience problems. Please be aware that when connecting SCSI devices, problems with termination and cabling can cause valuable data to be damaged. We regret that Yamaha can take no responsibility regarding any data which is lost.

■ Realities of terminator installation

Although we have said that a terminator is required at the beginning and end of the SCSI bus, this is a general principle and not a requirement. For example if the bus is extremely short (45 cm or less), there are cases in which it is best for there to be a terminator only on one or the other end. However if other drives are connected in addition to these drives, the situation will again be different.

Also, if the SCSI devices are separated by more than 3 meters, it is said that using a terminator at the 3 meter point is preferable. In this case, three or more terminators will exist within the SCSI bus.

In this way, the theory and practice of SCSI connections can differ widely. Simply changing a drive in a system that had been working correctly can cause operation to become unreliable, or adding a drive to an unreliable system can cause it to start working correctly. In practice, a certain amount of trial and error is necessary.

■ Reasons for SCSI errors

A SCSI bus operates stably only if all the connected SCSI devices are operating correctly. If any of the devices are producing noise, the other devices will also produce errors, and in the worst case, the boot block of a drive can be destroyed. (All data in that drive will be lost.)

Also, there are cases in which a system on which data appears to have saved may not have actually saved the data, resulting in data loss.

The following paragraphs will discuss the reasons for such errors, and will provide a sequence for your troubleshooting.

- **Check the SCSI ID**

Make sure that there is no conflict between the SCSI ID of each SCSI device including the MOTIF. When shipped from the factory, the MOTIF's SCSI ID is set to 6. Be sure to turn off the power before changing the SCSI ID setting.

- **Check the terminator**

As discussed above, check the location where the terminator is attached.

- **Check the SCSI cables**

Low-quality SCSI cables will almost always create problems. Always use double-shielded cables. It is also important that the shield be grounded inside the connector. Long SCSI cables frequently cause problems, so use as short a SCSI cable as possible. Bending or twisting a SCSI cable in a confined space can cause conductors to break or pins to be broken, so be careful to avoid this.

IMPORTANT

Yamaha cannot guarantee operation if the SCSI connector of the MOTIF is connected via a converter to any external device other than a 50-pin SCSI device, such as a Wide SCSI, ATA (IDE), USB, or IEEE 1394 device.

Notes on musical copyright

The MOTIF supports SCMS (Serial Copy Management System) to protect the copyrights of music software. Data that was digitally sampled from a CD or other source cannot be saved on a memory card or SCSI disc in WAV/AIFF format, and cannot be transmitted by using the TWE software. If you wish to save this data, you must save it in the MOTIF's own format.

It is prohibited to use copyrighted songs and sound data (that can be recorded via the MOTIF) for commercial purposes. It is also prohibited to reproduce, transfer, or distribute the data, or play the data for a commercial audience without permission from the owners of the copyright, except for personal use or application that does not infringe the copyright. If you wish to use such data for occasions other than personal use, consult a copyright expert. Yamaha is not responsible for any data created, reproduced, or edited using the MOTIF, nor for any reproduction or use of such data.

Specifications

Keyboards	MOTIF8	88 keys, Balanced Hammer Effect Keyboard (Initial Touch/Aftertouch)
	MOTIF7	76 keys, FS Keyboard (Initial Touch/Aftertouch)
	MOTIF6	61 keys, FS Keyboard (Initial Touch/Aftertouch)
Tone Generator block	Tone Generator	AWM2 (complying with the Modular Synthesis Plug-in System)
	Polyphony	62 notes + the polyphony of the Plug-in Board (if installed)
	Multi Timbral Capacity	16 parts (internal) + 3 or more Plug-in Board parts (1 for each Single Plug-in Board; 16 for Multi Plug-in Board), A/D Input
	Wave	84MB (when converted to 16-bit linear format), 1309 waveforms
	Voice	Preset: 384 normal voices + 48 drum kits GM : 128 normal voices + 1 drum kit User: 128 normal voices + 16 drum kits
	Plug-in Voice	Preset for the PLG150-AN/PF/DX: 64 Preset for the PLG-150VL: 192 User: 64 for each Plug-in slot
	Performance	User: 128 (up to 4 parts)
	Filter	21 types
	Effect System	Reverb x 12 types, Chorus x 25 types, Insertion 1 x 25 types, Insertion 2 x 104 types, Variation x 25 types (available for Performance/Song), Master Equalizer (5 bands), Plug-in Insertion (available when the PLG100-VH has been installed to slot 1)
	Expandability	3 Slots for Modular Synthesis Plug-in Boards
	Sampling block	Samples
Sampling Source		Analog input L/R, Stereo output (Resampling), Digital/Optical (available when the AIEB2 has been installed), mLAN (available when the mLAN8E has been installed)
A/D Conversion		20-bit, 64 x oversampling
D/A Conversion		24-bit, 128 x oversampling
Sample Data Bits		16
Sampling Frequency		44.1kHz, 22.05kHz, 11.025kHz, 5.5125kHz (Stereo/Mono) • Digital Sampling Frequency (when the AIEB2 has been installed) 48kHz, 44.1kHz, 32kHz * Can be input, with converted to the Sampling Frequency of the MOTIF. • Sampling Frequency via the mLAN (when the mLAN8E has been installed) 44.1kHz (fixed)
Sampling Memory		4MB, expandable to 64MB (32MB SIMM x 2 slots) * The original 4MB are disabled when a pair of 32MB SIMMs have been installed.
Sample Length		Mono: 32 MB Stereo: 64 MB
Sampling Time (when a pair of 32MB SIMMs have been installed)		44.1kHz: 6 min. 20 sec., 22.05kHz: 12 min. 40 sec., 11.025kHz: 25 min. 20 sec., 5.0125kHz: 55 min. 40 sec. * Mono/Stereo
Sample Format		Original format, WAV, AIFF, A3000/4000/5000/SU700 format (loadable only via SCSI), AKAI S1000/S3000 format (loadable only via SCSI)

Sequencer block	Note Capacity	Approx. 111,000 notes
	Note Resolution	480 ppq (parts per quarter note)
	Maximum Polyphony	124 notes
	Tempo	1 - 300
	Recording type	Real time replace, Real time overdub (with the exception of the Pattern Chain), Real time punch (Song only), Step (with the exception of the Pattern Chain)
	Tracks	Pattern Mode : 16 phrase tracks Pattern Chain Mode : Pattern track, Tempo track, Scene track Song Mode : 16 sequence tracks (Loop on/off can be set for each track), Tempo track, Scene track
	Patterns	User Patterns : 1024 (64 styles x 16 sections) Measures : 256 maximum
	Phrases	Preset Phrases : 128 Drum Phrases User Phrases : 256 per style
	Songs	64 songs
	Arpeggio	Preset 1 x 128 types Preset 2 x 128 types User x 128 types * MIDI Sync, MIDI transmit/receive channel, Velocity Limit, and Note Limit can be set.
	Scene Memory	5 per Song
	Sequence Format	Original format, SMF format 0, 1 (Format 1 load only)
	Others	Master
Sequence Software controlled via the Remote Control function		<ul style="list-style-type: none"> • For Windows ® Cubase VST™ V5.0, Logic Audio ® Platinum Ver4.6, Cakewalk Pro Audio™ Ver9.0, Pro Tools ® V5.0 • For Macintosh ® Cubase VST™ V5.0, Logic Audio ® Platinum Ver4.6, Pro Tools ® V5.0
Controllers		Pitch Bend wheel, Modulation wheel, Assignable Control Slider x 4, Assignable Knob x 4, Rotary Encoder
Display		240 x 64 dot graphic backlit LCD
External Memory		Smart Media™ (3.3V) * Up to 128MB can be used.
Connectors		OUTPUT L/MONO, R (standard phone jack) ASSIGNABLE OUTPUT L, R (standard phone jack) AD INPUT L, R (standard phone jack) PHONES (standard stereo phone jack) FOOT CONTROLLER 1, 2 FOOT SWITCH x 2 (SUSTAIN, ASSIGNABLE) BREATH, MIDI IN/OUT/THRU, SCSI, USB, OPTICAL OUTPUT, AC INLET
Dimensions, Weight		MOTIF8: 1,458(W) x 465(D) x 166(H)mm, 28.0kg MOTIF7: 1,255(W) x 397(D) x 135(H)mm, 18.1kg MOTIF6: 1,048(W) x 397(D) x 135(H)mm, 15.8kg
Supplied Accessories		Power cord, Owner's Manual Set TOOLS for MOTIF6/MOTIF7/MOTIF8 CD-ROM

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.

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V700890 202MWAP15.2-06E0
Printed in Japan