

SPECIAL MESSAGE SECTION

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

WARNING: Do not place this product 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.

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

SPECIFICATIONS SUBJECT TO CHANGE:

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

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

Some Yamaha products may have benches and / or accessory mounting fixtures that are either supplied with 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.

NOTICE:

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

ENVIRONMENTAL ISSUES:

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

Battery Notice:

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

This product may also use "household" type batteries. Some of these may be rechargeable. Make sure that the battery being charged is a rechargeable type and that the charger is intended for the battery being charged.

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

Warning:

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

Disposal Notice:

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

NAME PLATE LOCATION:

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

Model

Serial No.

Purchase Date

PLEASE KEEP THIS MANUAL

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep these precautions 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:

- Do not open the instrument or attempt to disassemble the internal parts or modify them in any way. The instrument contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified Yamaha service personnel.
- 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.
- If the AC adaptor cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the instrument, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the adaptor plug from the outlet, and have the instrument inspected by qualified Yamaha service personnel.
- Use the specified adaptor (PA-3B or an equivalent recommended by Yamaha) only. Using the wrong adaptor can result in damage to the instrument or overheating.
- Before cleaning the instrument, always remove the electric plug from the outlet. Never insert or remove an electric plug with wet hands.
- Check the electric plug periodically and remove any dirt or dust which may have accumulated on it.



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:

- Do not place the AC adaptor cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.
- When removing the electric plug from the instrument or an outlet, always hold the plug itself and not the cord.
- 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.
- Unplug the AC power adaptor when not using the instrument, or during electrical storms.
- Always make sure all batteries are inserted in conformity with the +/- polarity markings. Failure to do so might result in overheating, fire, or battery fluid leakage.
- Always replace all batteries at the same time. Do not use new batteries together with old ones. Also, do not mix battery types, such as alkaline batteries with manganese batteries, or batteries from different makers, or different types of batteries from the same maker, since this can cause overheating, fire, or battery fluid leakage.
- Do not dispose of batteries in fire.
- Do not attempt to recharge batteries that are not intended to be charged.
- When the batteries run out, or if the instrument is not to be used for a long time, remove the batteries from the instrument to prevent possible leakage of the battery fluid.
- Keep batteries away from children.

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep these precautions in a safe place for future reference.



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:

- If the batteries do leak, avoid contact with the leaked fluid. If the battery fluid should come in contact with your eyes, mouth, or skin, wash immediately with water and consult a doctor. Battery fluid is corrosive and may possibly cause loss of sight or chemical burns.
- 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.
- Do not expose the instrument to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not use the instrument near other electrical products such as televisions, radios, or speakers, since this might cause interference which can affect proper operation of the other products.
- Do not place the instrument in an unstable position where it might accidentally fall over.
- Before moving the instrument, remove all connected adaptor and other cables.
- When cleaning the instrument, use a soft, dry cloth. Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths. Also, 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.

■ REPLACING THE BACKUP BATTERY

- This instrument contains a non rechargeable internal backup battery which permits internal data to remain stored even when the power is off. When the backup battery needs replacing, the message "Backup Batt.Low" will display in the LCD display. When this happens, immediately back up your data, then have qualified Yamaha service personnel replace the backup battery.
- Do not attempt to replace the backup battery yourself, in order to prevent the possible serious hazards. Always have qualified Yamaha service personnel replace the backup battery.
- Never place the backup battery in a location that a child can reach, since a child might accidentally swallow the battery. If this should happen, consult a physician immediately.

■ SAVING USER DATA

- Always save data to a Memory Card (SmartMedia) frequently, in order to help prevent the loss of important data due to a malfunction or user operating error.

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.

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Meet the QY100

16-track sequencer, 525-voice tone module, unmatched automatic accompaniment features and more all rolled into one! The QY100 is a complete mini-studio for accompaniment and electronic music production that you can use just about anywhere — at home or on the road.

Guitarists! The practice and accompaniment tool you've been waiting for is here! Use the QY100 as your private "band" to refine and display your talents to the max.

Singers! Think of it as a fully programmable, very versatile accompaniment and "karaoke" machine complete with a range of superb vocal effects.

Keyboard Players, Composers, & All Electronic Musicians! It's all here: the sequencer, the tone module, the advanced accompaniment features. Everything you need to create even the most complex electronic music.

The screen displays as illustrated in this owner's manual are for instructional purposes, and may appear somewhat different from the screens which appear on your instrument.

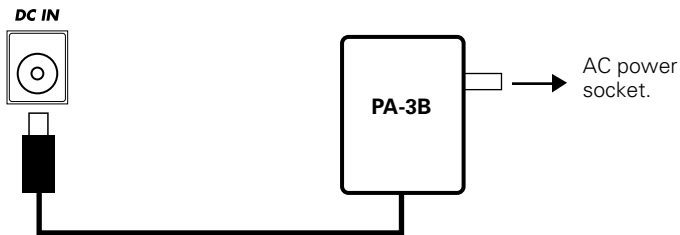
Power & Connections

Power Supply

Although the QY100 will run either from an optional AC adaptor or batteries, Yamaha recommends use of an AC adaptor whenever possible. Moreover, an AC adaptor is more environmentally friendly than batteries and does not deplete resources.

Using a Power Adaptor

Plug the DC output cable from a Yamaha PA-3B AC Adaptor (available from your Yamaha dealer) into the DC IN jack on the rear panel, then plug the adaptor into a convenient wall AC power socket.



⚠ CAUTION

- *Do not attempt to use an AC adaptor other than the specified unit or an appropriate replacement provided by your Yamaha dealer to power the QY100. The use of an incompatible adaptor may cause irreparable damage to the QY100, and might pose a serious shock hazard!*
- *Unplug the AC power adaptor when not using the instrument, or during electrical storms.*

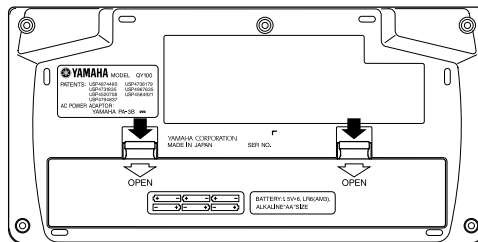
Using Batteries

Six 1.5V AA size (LR6) or equivalent batteries must first be installed in the battery compartment. Alkaline batteries are recommended for longer life.

Never mix battery types, such as alkaline batteries with manganese batteries or batteries from different makers.

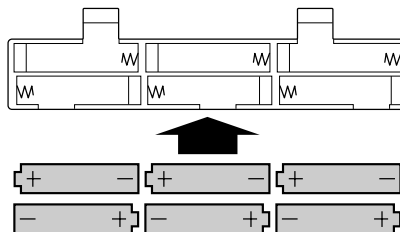
1 Open Battery Compartment Cover

Open the battery compartment cover — located on the instrument's bottom panel — by pressing down on the grooved section of the cover and sliding in the direction of the arrow, as shown in the illustration.



2 Insert Batteries

Insert the six batteries, being careful to follow the polarity markings on the bottom panel.



3 Replace Cover

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

When to Replace the Batteries

When the batteries run down, the following display will appear:



When the batteries run down more seriously, "Power Batt.End" message will appear. In this case, memory card functions are no longer accessible.

When this display appears, replace the batteries with a complete set of six new batteries. NEVER mix old and new batteries!

⚠ CAUTION

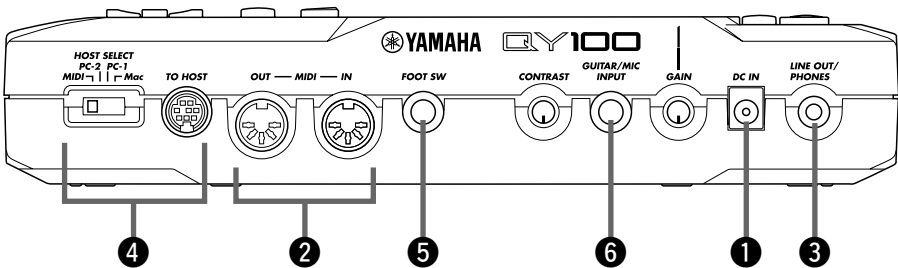
- To prevent possible damage due to battery leakage, remove the batteries from the instrument if it is not to be used for an extended period of time.
- If keeping the batteries and memory card inserted, a small current flows through the instrument. When the memory card is not used, remove the memory card from the CARD slot.

Setting Up

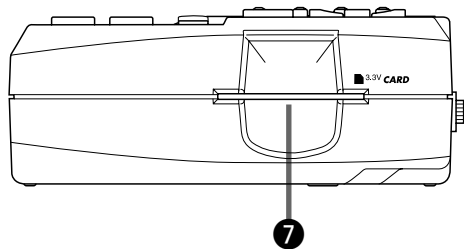
What you will connect the QY100 to, and what you will connect to the QY100, will depend entirely on your individual requirements, and it would be impossible to cover all possibilities here. A few examples are provided below to help you get started.

The Connectors

Rear Panel



Right Side Panel



① DC IN Jack (→ page 8)

This jack is only used when you are powering the QY100 from an optional AC adaptor instead of batteries. The DC output cable from an optional Yamaha PA-3B AC Power Adaptor is plugged in here.

■ NOTE

- The batteries are automatically disconnected when a plug is inserted into the DC IN jack.

2 MIDI IN & OUT Connectors (→ pages 15, 16)

If you plan to use a MIDI keyboard or other instrument to play and program the QY100, it should be connected to QY100 MIDI IN connector (see “MIDI Connections,” on page 15). The MIDI OUT connector can be connected to an external tone generator if you want to drive external voices from the QY100 sequencer, or a MIDI data recorder such as the Yamaha MDF3 if you want to store your songs and patterns to floppy disk.

3 LINE OUT/PHONES Jack (→ page 14)

This miniature stereo phone jack can be used to connect the output of the QY100 to a stereo sound system, or a pair of stereo headphones with a miniature stereo phone plug can be plugged in here for convenient monitoring (see “Audio Connections,” on page 14). The output level is adjusted via the VOLUME control on the left side panel.

4 TO HOST Connector & HOST SELECT Switch

(→ pages 15, 16)

This jack and selector switch allow direct connection to a personal computer without the need for a separate MIDI interface. See “Connecting To a Personal Computer” on page 16 for details.

5 FOOT SW Jack (→ page 245)

An optional FC-4 or FC-5 foot switch can be connected here to perform a number of switching functions. The footswitch function is selected via the UTILITY functions described on page 245.

Song and Pattern Playback: The footswitch can be used to start and stop song or pattern playback.

Section Switching: The footswitch can be used to select the QY100’s various style “sections” (e.g. INTRO, MAIN A, FILL AB, etc.) during song or pattern playback.

Amp Simulator Switching: The footswitch can be used to switch the specified sections of the QY100 amp simulator in or out. The foot switch can be used to bypass the preamp section only (delay when a microphone setup is selected), the reverb effect only, the chorus effect only, or all three simultaneously (pages 44 and 52).

6 GUITAR/MIC INPUT Jack (→ pages 36, 45)

Connect your guitar or microphone here to use the QY100's superlative guitar and vocal effects. The GAIN control next to the GUITAR/MIC input jack allows matching with a wide range of guitars and microphones.

 **CAUTION**

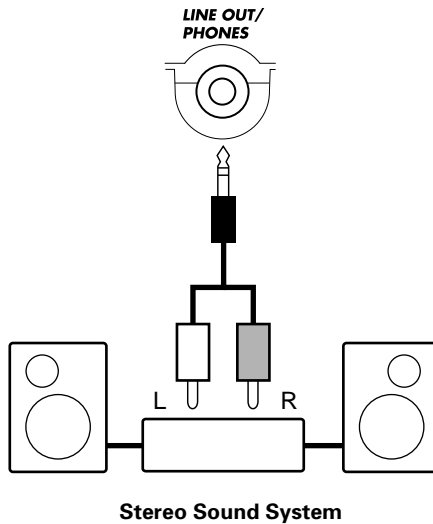
- *When connecting a microphone to the QY100 GUITAR/MIC input, be sure that a microphone amp simulator setup is selected first (page 48). Loud feedback may occur if one of the guitar setups is selected.*

7 CARD Slot (→ page 254)

The QY100 CARD slot accepts standard memory cards for convenient storage of settings and sequences. Card access and operations are described on page 254.

Audio Connections

The simplest way to monitor the QY100 sound is via a pair of stereo headphones (miniature stereo phone plug type) plugged into the LINE OUT/PHONES jack. If you want to use an external stereo sound system, however, use the supplied "Y" cable (miniature stereo phone plug to dual RCA pin plugs) to connect the LINE OUT/PHONES jack to the inputs of a stereo sound system. The white RCA pin plug goes to the left-channel input of your stereo sound system and the red plug goes to the right-channel input.

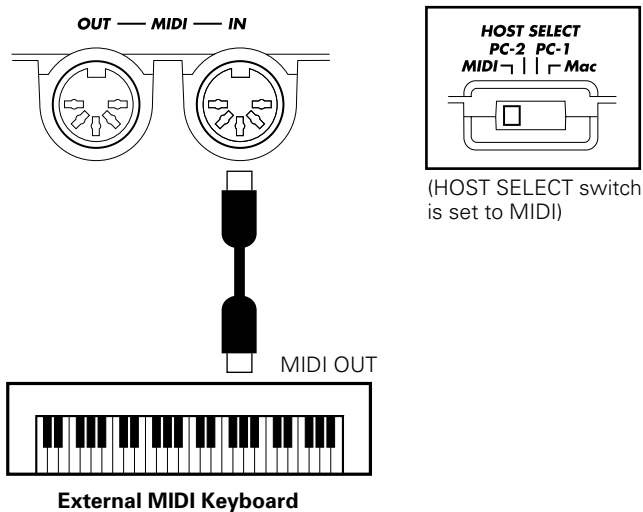


⚠ CAUTION

- *Make sure that both the QY100 and your sound system are turned OFF (STANDBY) when making connections.*

MIDI Connections

Although the QY100 can be played and programmed from the built-in micro-keyboard, an external MIDI keyboard connected to the MIDI IN connector provides the added advantages of standard keyboard size and key velocity sensitivity (if your keyboard has a velocity-sensitive keyboard). Connect the MIDI OUT connector of the keyboard to the MIDI IN connector of the QY100, and make sure that the QY100 HOST SELECT switch is set to MIDI. The connected MIDI keyboard will play the voice assigned to the currently selected sequencer track. See page 71 for instructions on how to assign different voices to the sequencer tracks.

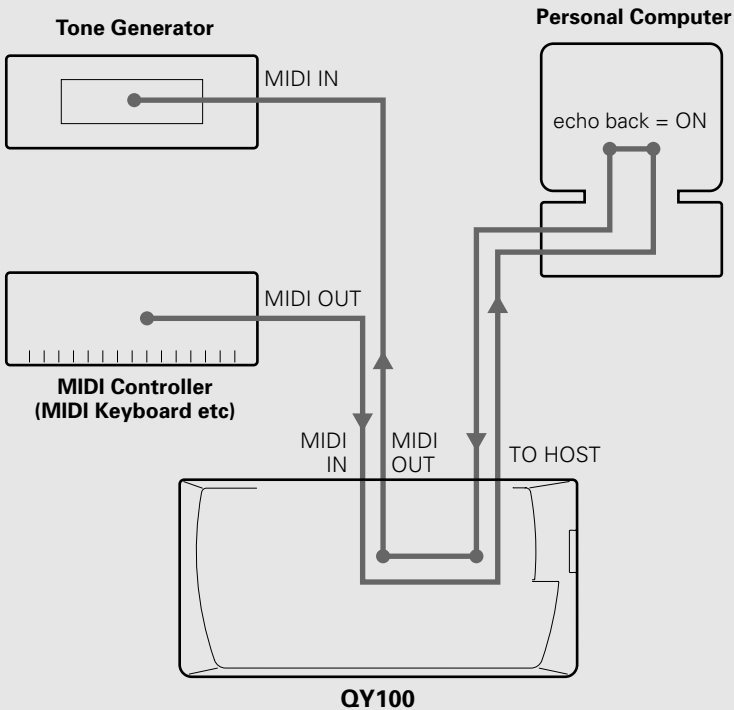


Connecting to a Personal Computer

Although the QY100 can be connected to a personal computer via the MIDI IN/OUT connectors and a MIDI interface, the TO HOST connector and selector switch allow direct connection to Apple Macintosh, or IBM-PC/AT series personal computers for sequencing and other music applications without the need for a separate MIDI interface.

■ IMPORTANT!

- If the QY100 is to be connected to a computer via the TO HOST connector and a MIDI controller via the MIDI IN connector, the "echo back" (or "MIDI Thru" etc) function of the music software or sequencer you are using must be turned "on" so that the MIDI note data from the controller is returned to the QY100 and any subsequent devices connected to the QY100 MIDI OUT connector.

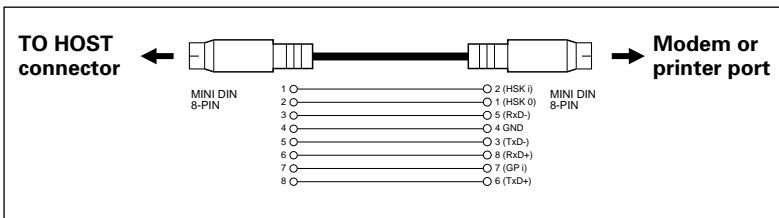


● Connecting to an Apple Macintosh Series Computer

Connect the TO HOST connector of the QY100 to the modem or printer port on your Macintosh, depending on which port your MIDI software is using for MIDI data communication, using a standard Macintosh 8-pin system peripheral cable. Set the HOST SELECT switch to the “Mac” position.

You may also have to make other MIDI interface settings on the computer side, depending on the type of software you use (refer to your software owner’s manual). In any case the clock speed should be set to 1 MHz.

“Mac” Cable Connections



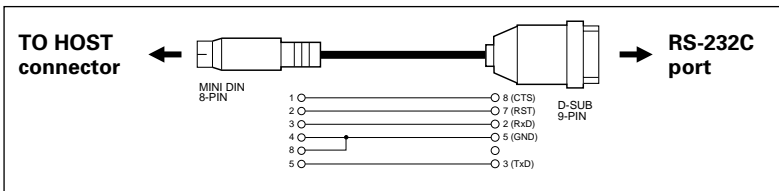
- 8-pin system peripheral cable.
- Data transfer rate: 31,250 bps.

● Connecting to an IBM-PC/AT Series Computer

Connect the TO HOST connector of the QY100 to the RS-232C port on your IBM computer, using a standard 8-pin MINI DIN → 9-pin D-SUB cross cable. Set the HOST SELECT switch to the “PC-2” position.

Refer to your software owner’s manual for information on any settings you might have to make on the computer side.

“PC-2” Cable Connections

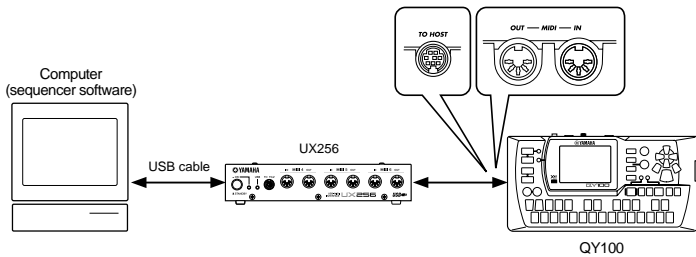


- 8-pin mini DIN → 9-pin D-SUB cable.
- Data transfer rate: 38,400 bps.

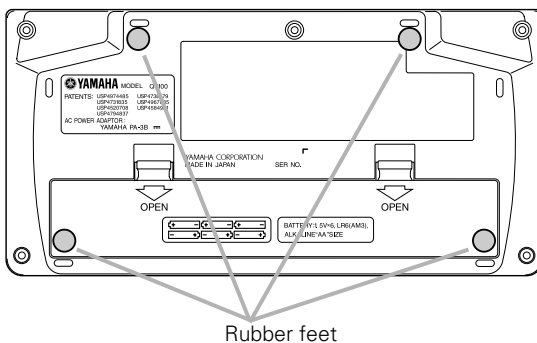
● **Connecting to a USB interface
(such as the Yamaha UX256)**

If your computer does not have an RS-232C port or modem/printer port, the QY100 can be connected via a separate USB interface such as the Yamaha UX256.

Connect the USB port of your UX256 or other USB interface to the USB port on your computer using a USB cable. Install the appropriate driver software on your computer (the driver software should be supplied with the USB interface). Connect the TO HOST connector or MIDI IN/OUT connector of the QY100 to your USB interface. For detailed information, refer to the owner's manual that came with your USB interface.



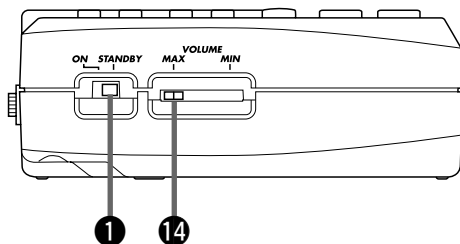
If necessary, attach the included rubber feet to the bottom of the QY100 as shown in the following illustration.



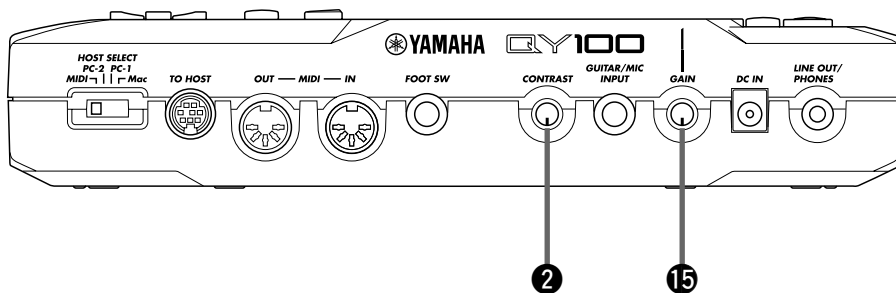
The Controls

The QY100 has fairly simple, consistent control interface that, once understood, makes operation fast and easy, no matter what operation you are performing. If you read through this section carefully, and try out the procedures in the “TRY THIS” sections, you should have no problem accessing and operating the QY100’s many advanced features.

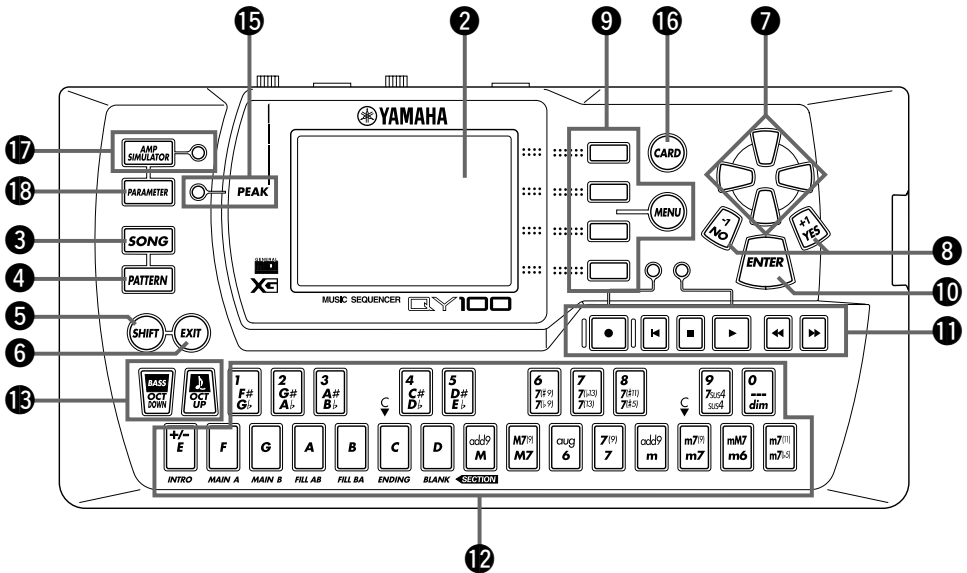
Left Side Panel



Rear Panel



Front Panel



1 POWER Switch

Slide to the “ON” position to turn the QY100 on, or to the “STANDBY” position to turn it off.

2 LCD Display & CONTRAST Control

This large multi-function liquid crystal display panel shows all parameters and prompts you need to operate the QY100 with optimum ease and efficiency.

Use the CONTRAST control on the rear panel to achieve the best display visibility (LCD visibility varies greatly with viewing angle and lighting).

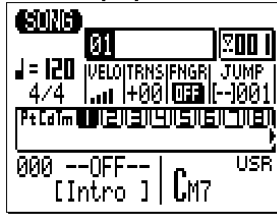
3 [SONG] Button

Use this button to select the QY100 SONG mode from any other mode, and to switch between the SONG, SONG VOICE, and SONG EFFECT displays.

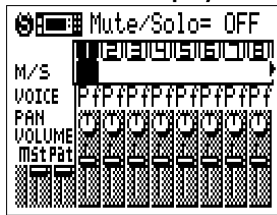
TRY THIS:

Turn your QY100 on (the power switch is on the left side), then press the [SONG] button a few times and watch how the display changes. The [SONG] button calls the SONG, SONG VOICE, and SONG EFFECT displays in sequence. The order in which the displays is selected is reversed if you press the [SONG] button while holding the [SHIFT] button.

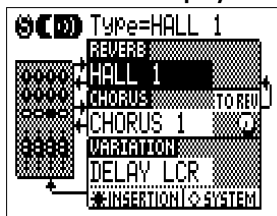
SONG display



SONG VOICE display



SONG EFFECT display



4 [PATTERN] Button

The [PATTERN] button selects the QY100 PATTERN mode from any other mode, and switches between the PATTERN, PATTERN VOICE, and PATTERN EFFECT displays.

5 [SHIFT] Button

The [SHIFT] button modifies the function of certain other buttons in certain situations (e.g. it reverses the order in which the [SONG] or [PATTERN] displays are selected, as described above). It also allows direct numeric entry via the black micro-keyboard keys (numbered 1 through 0). Situations in which the [SHIFT] button can be used will be described where appropriate in the manual.

6 [EXIT] Button

No matter where you are in the QY100 display hierarchy, the [EXIT] button will take to the next highest level (effectively “backing up” one step — unless you’re already at the top display).

7 Cursor Buttons

These 4 buttons move the “cursor” around the display screen, highlighting the various parameters that are available for editing (the QY100 cursor appears as a dark block with inverse characters).

TRY THIS:

Select the SONG mode display (use the [SONG] button, as described above), then try using the cursor buttons to move the cursor around the screen.

8 [-1/NO] and [+1/YES] Buttons

These buttons are used to edit (change the value of) the parameter at which the cursor is currently located. The [-1/NO] button decrements (decreases stepwise) the value of the selected parameter, while the [+1/YES] button increments (increases stepwise) the parameter. Press either button briefly to decrement or increment the parameter by one, or hold the button for continuous decrementing or incrementing in the specified direction.

The [-1/NO] and [+1/YES] buttons are also used to respond to “Are you sure?” prompts when they appear. Press [+1/YES] to go ahead with the operation, or [-1/NO] to cancel.

■ NOTE

- For even faster decrementing or incrementing, press the opposite increment/decrement button while holding the button corresponding to the direction you want to increment/decrement in.

TRY THIS:

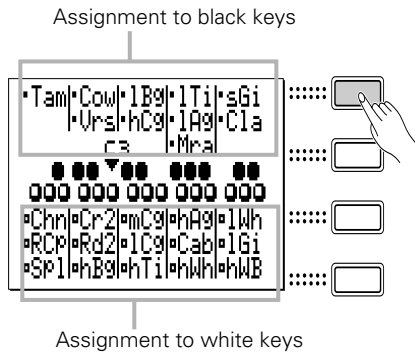
Select the SONG mode display (use the [SONG] button, as described above), use the cursor buttons to select the transpose parameter (“TRNS” on the display), then try using the [-1/NO] and [+1/YES] buttons to change its value. Set it back to “+00” before continuing.

9 [MENU] and Function Buttons

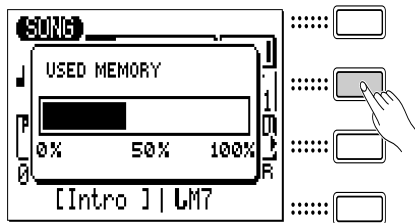
The [MENU] button calls a menu of functions or sub-modes that can be accessed from the current QY100 mode, and the function buttons (the four small buttons to the right of the display) select the corresponding item from the menu that appears on the display.

The function buttons can also be used, as shown below, with the [SHIFT] button, instead of calling a menu with the [MENU] button.

- Pressing the top function button while holding the [SHIFT] button calls a display showing drum instrument assignments to each micro keyboard key at the current octave setting.



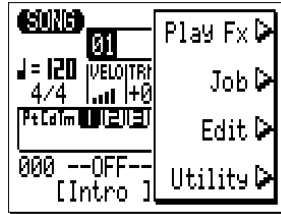
- Pressing the second function button while holding the [SHIFT] button calls the Used Memory display.



- Pressing the bottom function button while holding the [SHIFT] button executes the Undo/Redo job for immediately previous edit. (Refer to “Undo/Redo” on page 147).

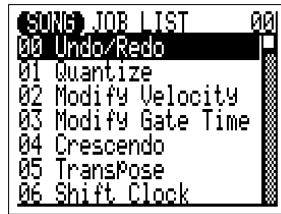
TRY THIS:

Select the SONG mode display (use the [SONG] button, as described above), then press the [MENU] button. You should see the menu shown on the right:



Next press the second function button (the one immediately to the right of “Job” on the menu) to call the SONG mode Job List:

You can now use the cursor buttons (up and down only) to select the various items in the Job List. Leave the display as it is for now, and read about the [ENTER] button, below.



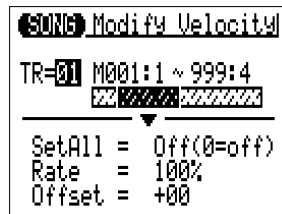
10 [ENTER] Button

In addition to “entering” chords in the SONG and PATTERN modes (which we’ll learn about later), the [ENTER] button is used to “enter” a selected menu function.

TRY THIS:

Assuming that you’ve gone through the “TRY THIS:” procedure for the [MENU] and Function buttons, above, you should now have the SONG mode Job List on your QY100 screen. Use the cursor buttons (up and down only) to select job number 02

“Modify Velocity”. Now press the [ENTER] button to actually engage the Modify Velocity job — the display should look like this:



Since we don’t really want to use the Modify Velocity job, press the [EXIT] button twice (or the [SONG] button once) to go back to the SONG mode.

11 Sequencer Buttons

The sequencer buttons control recording and playback in the SONG and PATTERN modes, and allow you to locate a specific measure within a song or pattern. Their layout and functions are similar to the transport controls on a tape recorder.

- **RECORD READY:** Press this button to engage the record ready mode. You have to press the START button to actually start recording.
- **STOP:** Press to stop recording or playback.
- ▶ **START:** Press to start recording or playback.
- ◀ **GO TO TOP:** This button takes you directly to the first measure (the “top”) of the current song or pattern.
- ◀◀ **MOVE BACK:** Press briefly to move back one measure, or hold for continuous scrolling.
- ▶▶ **MOVE FORWARD:** Press briefly to move forward one measure, or hold for continuous scrolling.

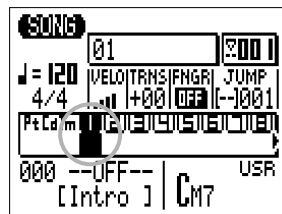
12 Micro Keyboard

This tiny 2-octave keyboard makes it possible to program the QY100 anywhere, anytime, without having to connect an external MIDI keyboard. It’s even polyphonic, so you can directly enter chords as well as single notes. The only thing it lacks is velocity sensitivity. The QY100 does, however, accept velocity information from an external MIDI keyboard.

When programming accompaniment tracks the micro-keyboard is also used to specify the chord roots and types to be entered.

TRY THIS:

In the SONG mode, use the cursor buttons to place the cursor at the track 1 position (“1” on the display).



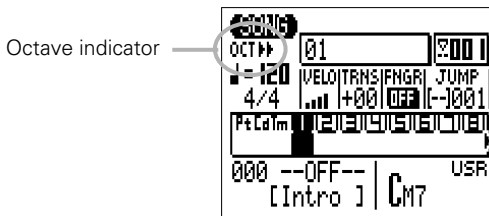
Now play the micro keyboard. You should hear the voice that is currently assigned to sequencer track 1.

In the SONG mode, the micro keyboard plays the voice assigned to the currently selected track (unless you're recording the chord track, in which case it is used to specify chords).

13 Octave Buttons

Since the 2-octave range of the micro-keyboard is not enough for serious music programming, the [OCT DOWN] and [OCT UP] buttons allow the pitch of the keyboard to be shifted up or down in octave steps, over a range of 8 octaves. Each time the [OCT DOWN] button is pressed the pitch of the keyboard is shifted down by one octave, until the lower limit is reached. The [OCT UP] button shifts the pitch of the keyboard up in the same way. The number of octaves the pitch of the micro-keyboard has been shifted down or up is shown by the octave indicator in the upper left corner of the display — the number of arrows indicates the number of octaves shifted in the corresponding direction.

Pressing the [OCT DOWN] and [OCT UP] buttons simultaneously shifts the pitch to ± 0 .



When recording the accompaniment chord tracks in the step mode, the [OCT DOWN] button is used to specify the bass note for chords, while the [OCT UP] button is used to enter syncoated chords.

While playing a note on the micro-keyboard, the [OCT DOWN] button will shift the pitch of the note up while held, and the [OCT UP] button will apply modulation while held.

14 VOLUME Control

The VOLUME control adjusts the volume of the sound delivered via the LINE OUT/PHONES jack. Slide the control toward “MAX.” to increase the volume or toward “MIN.” to decrease the volume.

CAUTION

- *Set the VOLUME control to “MIN.” when connecting the QY100 to a sound system for the first time, then gradually raise the volume level until the required listening level is reached. This simple precaution can prevent unexpectedly high volume levels from damaging your speaker system (and maybe even your ears!).*

15 GAIN Control & PEAK Indicator (→ pages 36, 45)

Use the GAIN control on the rear panel to adjust the QY100 input gain to match your guitar or microphone. If the PEAK indicator LED next to the [PARAMETER] button light more than just occasionally as you play or sing, the GAIN setting is too high. The PEAK indicator should flash only briefly on the highest transient peaks.

16 [CARD] Button (→ page 254)

Accesses the QY100’s memory card functions: Save, Load, Make Directory, and Format. Settings and sequences can be saved to and loaded from standard memory cards for convenient, high-volume storage and portability. The CARD functions are only available when an appropriate memory card is installed in the CARD slot on the right side panel. See page 254 for details on the types of memory cards that can be used and the QY100’s card functions.

17 [AMP SIMULATOR] Button & Indicator (→ pages 44, 52)

Turns the specified section(s) of the QY100 amp simulator stage on or off. The [AMP SIMULATOR] button alternately turns the amp simulator preamp section (delay effect when a microphone setup is selected), the reverb effect, the chorus effect, or all three on and off depending on the setting of the “On/Off” parameter described on pages 44 and 52. The button’s indicator

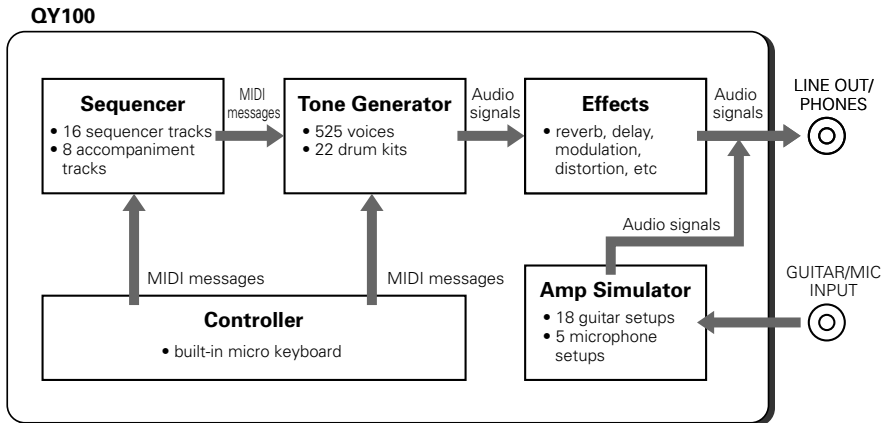
goes out when the selected sections are bypassed. The same function can be assigned to an optional FC-4 or FC-5 footswitch connected to the rear panel FOOT SW jack (page 12).

18 [PARAMETER] Button (*→ pages 38, 47*)

Accesses the QY100 amp simulator setups and parameters for guitar and microphone input. See pages 38 and 47 for details.

QY100 System Overview: What It Is and What It Does

This section offers a broad look at the overall QY100 system and how the various features work together ... but if you'd rather jump right in start playing, skip ahead. Come back and read this section when you're ready.



The Sequencer

16 Sequencer Tracks

You can individually assign any of the QY100's 525 normal voices or 22 drum kits to the sequencer tracks and record anything you like via the micro-keyboard or a MIDI keyboard or other type of MIDI controller connected to the MIDI IN connector. Think of each sequencer track as a "part" of your composition: the piano part, the bass part, etc. You can separately record up to 16 parts which can be played back simultaneously to create

complex musical structures and rich textures. Of course you can also use just two or three tracks for simpler arrangements. If you're a guitar player, for example, you might only need to create a drum and bass track to play along with.

The sequencer tracks can be recorded in real time using the "replace" or "overdub" recording mode. When you use the "replace" mode anything you use will replace (overwrite) any material that was previously on the same section of the track being recorded. The "overdub" mode, on the other hand, lets you add new material to a previously-recorded track without erasing the previous data. This lets you build up a track bit by bit without having to play the entire part all at once. Another option is the "step" record mode in which you can enter notes one at a time to create extremely fast or complex passages that would be difficult to record in real time. The "step" mode is also useful for adding finishing touches to tracks recorded in real time. Finally, there's a "multi" record mode in which all 16 sequencer tracks can be recorded simultaneously — a great feature for transferring MIDI data to the QY100 from another sequencer.

8 Accompaniment Tracks

The QY100 accompaniment tracks are what make it a versatile but surprisingly easy-to-use accompaniment machine. Rather than recording individual notes or chords as on the "sequencer" tracks described above, accompaniments are produced by specifying a sequence of "patterns" to be played (we will take a brief look at patterns — in the "Instant Accompaniment" section on page 53). In addition to 128 preset accompaniment "styles", each with 6 variation "patterns" (for details about styles and patterns, see page 53), the QY100 provides memory for up to 64 original styles that you can record yourself. Chord changes are programmed simply by entering the name of the chord (you can do this via the micro-keyboard simply by pressing the appropriate key), and you can specify the bass note for the chord as well as syncopated chord timing for maximum versatility in creating accompaniments for any type of music. The entire accompaniment is automatically re-harmonized to match the chords you specify. What all this means is that you can put together great-sounding accompaniments in a fraction of the time it would take using a conventional sequencer, so you spend less time programming and more time creating and playing.

Tone Generator

The QY100 tone generator is a high-performance sound module in its own right, complete with 525 voices and 22 drum and percussion kits. In fact, the tone generator block is fully GM and XG compatible (see explanations, below) so you can actually use it as an independent sound module driven from an external sequencer or computer-based MIDI music system. The QY100 even provides a range of editing controls for the voices and drum kits so you can customize the sound to suit your music. A complete list of the QY100 voices is provided in the separate Data List booklet.

GM(General MIDI) System Level 1

“GM System Level 1” is a standard specification that defines the arrangement of voices in a tone generator and its MIDI functionality, ensuring that data can be played back with substantially the same sounds on any GM-compatible tone generator, regardless of its manufacturer or model.

Tone generators and song data that meet the “GM System Level 1” bear this GM logo.



XG

“XG” is a tone generator format that expands the voice arrangement of the “GM System Level 1” specification to meet the ever-increasing demands of today’s computer peripheral environment, providing richer expressive power while maintaining upward compatibility of data. “XG” greatly expands “GM System Level 1” by defining the ways in which voices are expanded or edited and structure and type of effects.

When commercially available song data bearing the XG logo is played back on a tone generator which bears the XG logo, you will enjoy a full musical experience that includes unlimited expansion voices and effect functions.



Effects

Yamaha is famous for the quality of its reverb and other effects, and the QY100 is no exception. The built-in effect system provides top-quality reverb, chorus, and variation effects (including modulation and distortion) that you can use to refine and polish your sound. Each sequencer track has individual send controls for the reverb, chorus, and variation effect stages, so you can apply effects separately to each track as required. A complete list of the QY100 effects is provided in the separate Data List booklet.

Controller

With the QY100's own micro keyboard you can create sequences anywhere. But you can connect just about any type of the MIDI controller — keyboard, MIDI wind controller, MIDI guitar, etc. — to the QY100 to give you the type of control that best suits your style and talents.

Amp Simulator

As the name suggests, the QY100 “Amp Simulator” simulates the characteristics of amplifiers — specifically guitar amplifiers and microphone preamplifiers. Although the requirements for a good microphone preamplifier are pretty straightforward — high gain with flat frequency response as well as low noise and distortion — guitar amplifiers are a little more complex. Each guitar amp has its own unique sound, and the emphasis is generally on musicality rather than accuracy. The QY100 Amp Simulator performs both functions quite well, and it offers a range of top-quality effects for use with guitar and microphone. The guitar setups feature overdrive/distortion, modulation and reverb. The microphone setups offer delay, modulation and reverb. The QY100 has 18 guitar setups and 5 microphone setups that you can customize to create the perfect sound for your music.

Guided Tour

— Your Step-by-Step Guide to the QY100's Basic Features and Functions

OK, here we go. Get comfortable with the QY100, the manual, and a good cup of whatever strikes your fancy and we'll get right down to making the QY100 do what it does best — make music.

Listen To the Demo

“If you'd rather make your own music, skip ahead.”

Before you begin actually using the QY100 to create great music, perhaps you'd like to hear a few examples of what it can do. The QY100 includes 3 pre-programmed demo songs that will give you a rough idea of the types of sound it can produce as well as some of the capabilities of its sequencer functions.

1 Select the SONG Mode

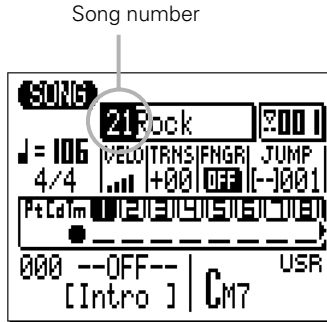
The demo songs are available in the SONG mode. If the SONG mode isn't already selected, press the [SONG] button to select it. “SONG” should appear in the upper left corner of the display.



2 Select a Demo Song

The demo songs are songs 21, 22, 23 (songs 01 through 20 are available for your own recording). Use the cursor buttons to move the cursor to the song number on the display (the song

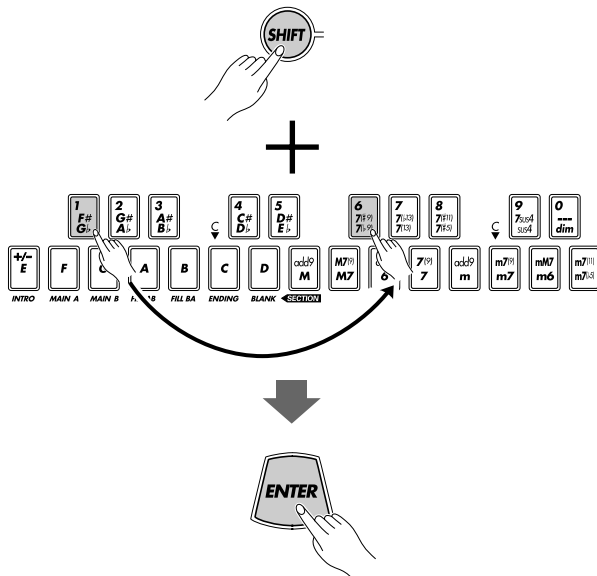
number should appear in inverse characters — i.e. light characters on a dark background), then use the [-1] and [+1] buttons to select song number 21, 22, or 23.



The SHIFT-Number Data Entry Method:

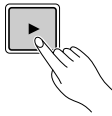
You can also use the SHIFT-Number method to enter song numbers or other data values. Use the numbered black keys on the micro-keyboard to enter the required number while holding the [SHIFT] button, then press the [ENTER] button.

Ex. To enter the number "16"

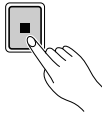


3 Start Playback

Once you've selected a song, you can start playback simply by pressing the sequencer [▶] button. Use the VOLUME control on the left side of the QY100 to set the most comfortable listening level.



When the current song is finished, the next song will start automatically. But you can stop playback at any time by pressing the [■] button. You can't select a different song while one is already playing, so to select and play a different demo song you'll have to stop playback, select the next song, and then start playback again.



■ NOTE

- For full details on controlling sequence playback, see the "Playback Control" section on page 118.

For Guitarists: Outstanding Amp Simulation & Effects

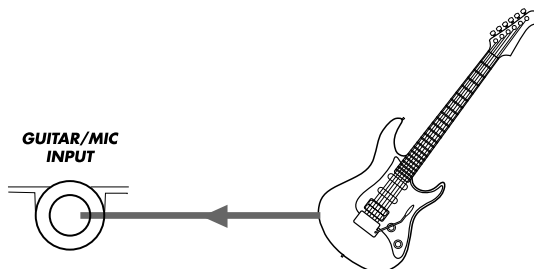
“If you’re not a guitarist, feel free to skip this section.”

Whether you want a better way to practice, top-quality accompaniment for live performances, or a convenient means to create full-blown compositions, the QY100 is an ideal musical tool for the guitarist who wants to get ahead. In addition to its sophisticated pattern and song sequencer features, the QY100 also offers a complete guitar amp simulator and effects system so you won’t need lots of extra equipment to integrate your guitar sound with the QY100.

Connection & Gain Adjustment

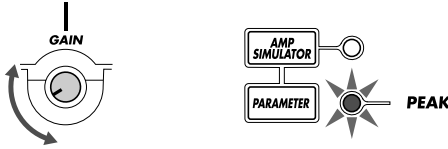
Simple! In addition to the basic setup instructions provided on page 8, all you need to do is plug your guitar into the GUITAR/MIC INPUT on the rear panel and adjust the GAIN control for optimum level matching.

- 1 Plug your guitar into the GUITAR/MIC INPUT on the rear panel.**



2 Adjust the input gain.

Use the GAIN control on the rear panel to adjust the QY100 input gain to match your guitar. If the PEAK indicator LED next to the [PARAMETER] button light more than just occasionally as you play, the GAIN setting is too high. The PEAK indicator should flash only briefly on the highest transient peaks.



Try Out the Preset Guitar Setups

The QY100 has 18 amp simulator setups designed specifically for guitar (see the separate Data List booklet). You can select the setups and adjust individual parameters via the “GTR/MIC EDIT” display accessed by pressing the [PARAMETER] button.

1 Press the [PARAMETER] Button

The “GTR/MIC EDIT” display will appear.



2 Highlight the Setup Number/Name

Use the cursor buttons to move the cursor to the setup number/name at the top of the display.

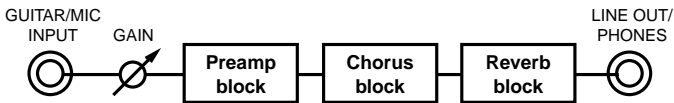
3 Select and Try Out the Setups

Use the [-1] and [+1] buttons to select the desired setup (G01 through G18). Go ahead and try out the setups as they are. You can make adjustments later. Make sure that the QY100 VOL-UME control is set to an appropriate level, and adjust the rear-panel GAIN control as necessary to optimize the overall level and sound quality.

Customizing the Setups via the Amp Simulator Parameters

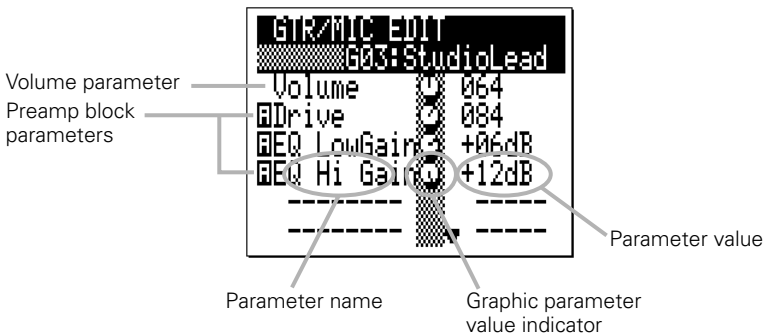
Although the QY100 guitar amp simulator setups sound good as they are, you'll undoubtedly want to "tweak" them a bit to create your own sound. Here's how:

The QY100 guitar amp simulator section is made up of three main blocks: the Preamp block, the Chorus block, and the Reverb block, as shown in the diagram.

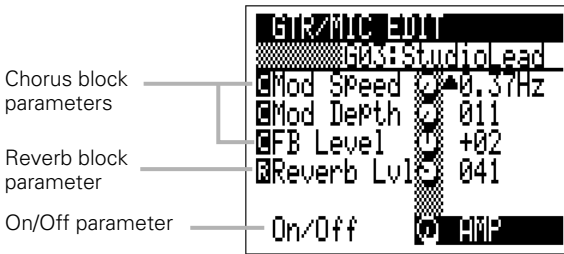


All of the available parameters for each setup are located below the setup number and name in the GTR/MIC EDIT display. The preamp parameters are located near the top of the parameter list, and are indicated by an inverse "A" before the parameter name. The chorus block parameters are next, and are indicated by an inverse "C" before the parameter name. The reverb block has only one parameter, indicated by — you guessed it — an inverse "R". The parameter list also includes a "Volume" parameter and an "On/Off" parameter which are described below.

Parameter page 1



Parameter page 2



To edit a parameter:

1 Move the Cursor to the Parameter You Want to Edit

Use the cursor buttons to highlight the desired parameter value. Since not all of the parameters fit on one display page, you'll have to scroll down below the bottom of the first page to see the parameters in the second page.

2 Adjust the Parameter Value

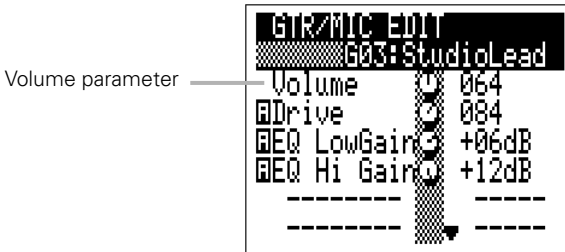
Use the [-1] and [+1] buttons or the SHIFT-Number entry method (see page 34. However, this method is not available for some parameters.) to adjust as necessary. In addition to the numeric parameter value, each parameter also has a graphic level control located between the parameter name and value which provides a convenient visual reference to relative parameter setting.

■ NOTE

- Any changes you make to the parameters will be retained for each setup even if you select a different preset or turn the QY100 off. You can individually restore the initial settings for each setup by using the "INITIALIZE" function: After selecting the setup you want to initialize, press the [MENU] button and then the function button next to "Initialize" on the display. Then when the "Initialize" display appears press the [ENTER] button to initialize all parameters of the selected setup. When initialization is complete press the [EXIT] button to return to the Amp Simulator display.

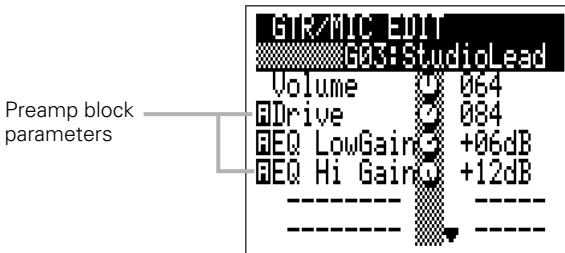
● The Volume Parameter

A “Volume” parameter which affects the overall volume of the setup is located at the top of the parameter list. This parameter is most useful for matching the levels of the setups to suit your musical needs. You might, for example, want all of your guitar setups to have about the same level, or you might want certain effects you’ve set up for solos to have a higher level than the rest. Parameters such as preamp drive and EQ also affect the subjective level of the guitar sound, and the Volume parameter is a convenient way to compensate for such variations.



● The Preamp Block

Depending on the selected setup, you’ll see one or three preamp parameters below the “Volume” parameter. In some setups only the “Drive” parameter will be available, while in others you will have “Drive”, “EQ LowGain” and “EQ Hi Gain”. Here’s what the preamp parameters do:



Drive	In guitarist-friendly terms, this parameter is similar to the “gain” or “pre-gain” control on an amplifier that has both gain and master volume controls. Higher “Drive” values (range: 000 ... 127) produce more overdrive (distortion).
--------------	---

EQ LowGain	Boosts or cuts the bass frequencies (range: -12dB ... +00dB ... +12dB). Minus settings lower the bass response, giving you a “thinner” sound. Positive settings boost the bass response for a “fuller” sound.
EQ Hi Gain	Boosts or cuts the high frequencies (range: -12dB ... 0 ... +12dB). Minus settings lower the treble response, giving you a “rounder”, more mellow tone. Positive settings boost the treble response for a brighter sound.

● The Chorus Block

The Chorus effect can give your guitar sound added life and sparkle. The Chorus block is not engaged on all setups. If you select a setup which does not use the Chorus block the Chorus parameter values will all appear as dashed lines. When the Chorus block is engaged, the parameters work as follows:



Mod Speed	Adjusts the modulation speed of the chorus effect (the speed at which the tone varies). The value range is from 0.0 Hz through 39.7 Hz. The higher the value, the faster the modulation.
Mod Depth	Modulation depth (range: 000 through 127). The higher the value the deeper the modulation and, thus, the “stronger” the effect.
FB Level	Adjusts the amount of feedback applied to the chorus block (range: -63 ... +00 ... +63). Negative values apply reverse-phase feedback.

● The Reverb Block

The Reverb block has only one parameter — “Reverb Lvl” — which adjusts the depth of the reverb sound. The Reverb Lvl range is from “000” to “127”, with higher values producing deeper reverb. If you select a setup which does not use the Reverb block, the “Reverb Lvl” parameter value will appear as dashed line.



● The “On/Off” Parameter

At the very bottom of the parameter list is the “On/Off” parameter. This parameter allows you to select a specific block to be turned on and off by the [AMP SIMULATOR] button on the top panel, or a footswitch connected to the rear-panel FOOT SW jack (when the footswitch is assigned to amp simulator section switching via the UTILITY parameter described on page 245). There’s also an “ALL” setting which allows all blocks to be turned on or off. When the selected block(s) are bypassed (off), the indicator to the right of the [AMP SIMULATOR] button will go out).



The settings are:

AMP	The footswitch or [AMP SIMULATOR] button turns only the Preamp block on and off.
CHO	The footswitch or [AMP SIMULATOR] button turns only the Chorus block on and off.
REV	The footswitch or [AMP SIMULATOR] button turns only the Reverb block on and off.
ALL	The footswitch or [AMP SIMULATOR] button turns all three blocks —Preamp, Chorus, and Reverb — on and off.

For Singers: Cool Vocal Processing

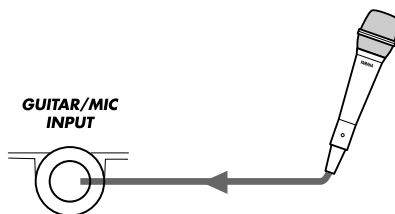
“If you’re not a vocalist, feel free to skip this section.”

The QY100 is an outstanding accompaniment tool for singers, too. It features a GUITAR/MIC input that will directly accept the signal from your vocal microphone and apply essential vocal effects such as delay and reverb. There’s even a chorus effect that you can use to create extra thick sounds.

Connection & Gain Adjustment

Simple! In addition to the basic setup instructions provided on page 8, all you need to do is plug your microphone into the GUITAR/MIC INPUT on the rear panel and adjust the GAIN control for optimum level matching.

- 1 Plug your microphone into the GUITAR/MIC INPUT on the rear panel.**

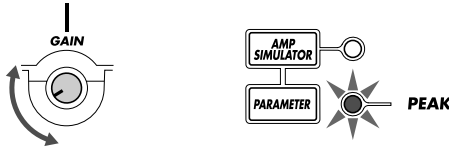


⚠ CAUTION

- When connecting a microphone to the QY100 GUITAR/MIC input, be sure that a microphone amp simulator setup is selected first (page 48). Loud feedback may occur if one of the guitar setups is selected.

2 Adjust the input gain.

Use the GAIN control on the rear panel to adjust the QY100 input gain to match your microphone. If the PEAK indicator LED next to the [PARAMETER] button light more than just occasionally as you sing, the GAIN setting is too high. The PEAK indicator should flash only briefly on the highest transient peaks.

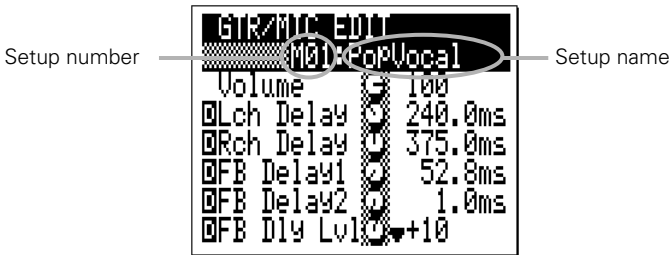


Try Out the Preset Microphone Setups

The QY100 has 5 amp simulator setups designed specifically for use with microphone (see the separate Data List booklet). You can select the setups and adjust individual parameters via the “GTR/MIC EDIT” display accessed by pressing the [PARAMETER] button.

1 Press the [PARAMETER] Button

The “GTR/MIC EDIT” display will appear.



2 Highlight the Setup Number/Name

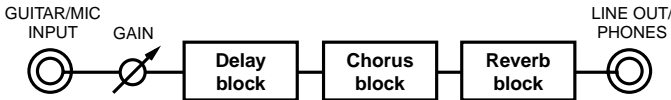
Use the cursor buttons to move the cursor to the setup number/name at the top of the display.

3 Select and Try Out the Setups

Use the [-1] and [+1] buttons to select the desired microphone setup (M01 through M05 — you might have to skip past guitar setups G01 through G18 to reach the microphone setups). Go ahead and try out the setups as they are. You can make adjustments later. Make sure that the QY100 VOLUME control is set to an appropriate level, and adjust the rear-panel GAIN control as necessary to optimize the overall level and sound quality.

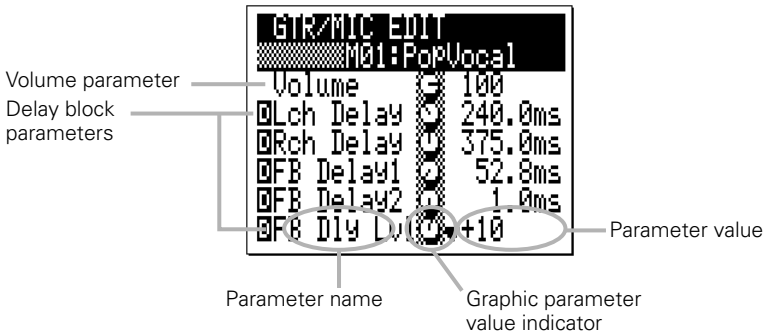
Customizing the Setups via the Microphone Effect Parameters

The QY100 microphone amp simulator section has three main effect blocks: the Delay block, the Chorus block, and the Reverb block, as shown in the diagram.

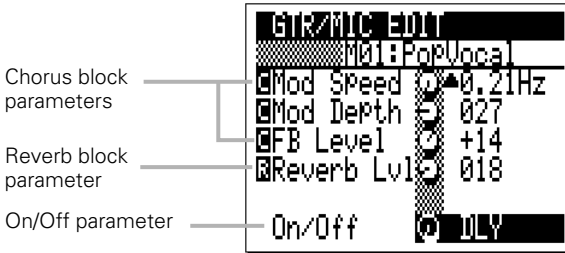


All of the available parameters for each setup are located below the setup number and name in the GTR/MIC EDIT display. The delay parameters are located near the top of the parameter list, and are indicated by an inverse "D" before the parameter name. The chorus block parameters are next, and are indicated by an inverse "C" before the parameter name. The reverb block has only one parameter, indicated by — you guessed it — an inverse "R". The parameter list also includes a "Volume" parameter and an "On/Off" parameter which are described below.

Parameter page 1



Parameter page 2



To edit a parameter:

1 Move the Cursor to the Parameter You Want to Edit

Use the cursor buttons to highlight the desired parameter value. Since not all of the parameters fit on one display page, you'll have to scroll down below the bottom of the first page to see the parameters in the second page.

2 Adjust the Parameter Value

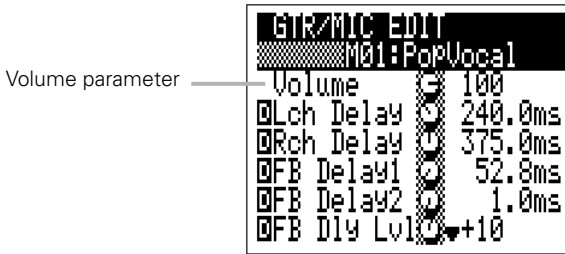
Use the [-1] and [+1] buttons or the SHIFT-Number entry method (see page 34. However, this method is not available for some parameters.) to adjust as necessary. In addition to the numeric parameter value, each parameter also has a graphic level control located between the parameter name and value which provides a convenient visual reference to relative parameter setting.

NOTE

- Any changes you make to the parameters will be retained for each setup even if you select a different preset or turn the QY100 off. You can individually restore the initial settings for each setup by using the "INITIALIZE" function: After selecting the setup you want to initialize, press the [MENU] button and then the function button next to "Initialize" on the display. Then when the "Initialize" display appears press the [ENTER] button to initialize all parameters of the selected setup. When initialization is complete press the [EXIT] button to return to the Amp Simulator display.

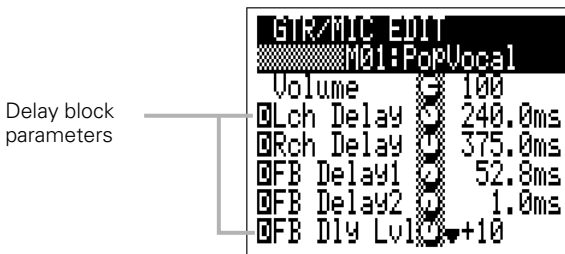
● The Volume Parameter

A “Volume” parameter which affects the overall volume of the setup is located at the top of the parameter list. This parameter is most useful for matching the levels of the setups to suit your musical needs. You might, want all of your setups to have about the same level, or you might want certain effects to have a higher level than the rest.



● The Delay Block

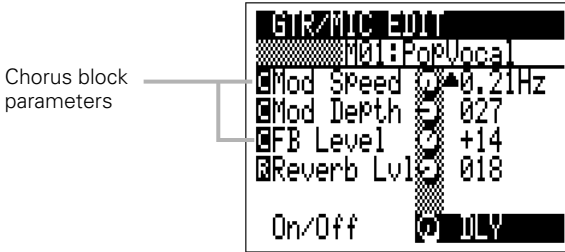
The stereo delay block has the following five parameters:



Lch Delay	Sets the initial delay time of the left-channel delay from 0.1 through 715.0 milliseconds.
Rch Delay	Sets the initial delay time of the right-channel delay from 0.1 through 715.0 milliseconds.
FB Delay1	Sets the feedback delay time of the left-channel delay from 0.1 through 715.0 milliseconds (this sets the delay time for delays following the main initial delay).
FB Delay2	Sets the feedback delay time of the right-channel delay from 0.1 through 715.0 milliseconds (this sets the delay time for delays following the main initial delay).
FB Dly Lvl	Feedback Delay Level determines how the later delays fade out after the initial delay.

● The Chorus Block

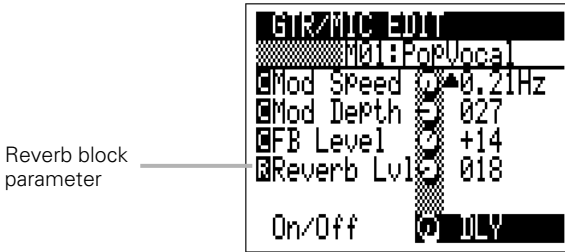
The Chorus effect can give your vocal sound added life and sparkle. The Chorus block is not engaged on all setups. If you select a setup which does not use the Chorus block the Chorus parameter values will all appear as dashed lines. When the Chorus block is engaged, the parameters work as follows:



Mod Speed	Adjusts the modulation speed of the chorus effect (the speed at which the tone varies). The value range is from 0.0 Hz through 39.7 Hz. The higher the value, the faster the modulation.
Mod Depth	Modulation depth (range: 000 through 127). The higher the value the deeper the modulation and, thus, the “stronger” the effect.
FB Level	Adjusts the amount of feedback applied to the chorus block (range: -63 ... +00 ... +63). Negative values apply reverse-phase feedback.

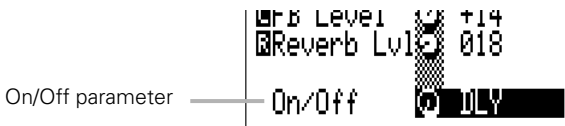
● The Reverb Block

The Reverb block has only one parameter — “Reverb Lvl” — which adjusts the depth of the reverb sound. The Reverb Lvl range is from “000” to “127”, with higher values producing deeper reverb. If you select a setup which does not use the Reverb block, the “Reverb Lvl” parameter value will appear as dashed line.



● The “On/Off” Parameter

At the very bottom of the parameter list is the “On/Off” parameter. This parameter allows you to select a specific block to be turned on and off by the [AMP SIMULATOR] button on the top panel, or a footswitch connected to the rear-panel FOOT SW jack (when the footswitch is assigned to amp simulator section switching via the UTILITY parameter described on page 245). There’s also an “ALL” setting which allows all blocks to be turned on or off. When the selected block(s) are bypassed (off), the indicator to the right of the [AMP SIMULATOR] button will go out).



The settings are:

DLY	The footswitch or [AMP SIMULATOR] button turns only the Delay block on and off.
CHO	The footswitch or [AMP SIMULATOR] button turns only the Chorus block on and off.
REV	The footswitch or [AMP SIMULATOR] button turns only the Reverb block on and off.
ALL	The footswitch or [AMP SIMULATOR] button turns all three blocks — Delay, Chorus, and Reverb — on and off.

Instant Accompaniment

In this section we'll learn how to use the QY100 to create a vast range of accompaniments without having to do any programming at all. By combining the 768 preset patterns provided (128 styles x 6 sections) with 99 preset chord templates we can create ... let's see, um ... a whole lot of accompaniment variations.

But First ... So You'll Know What We're Talking About

Before we discover how easy it is to create accompaniments with the QY100, let's straighten out some of this confusing terminology: just what exactly are "patterns", "styles", "sections", and "chord templates"?

● Styles

A "style" is, well, a musical style! Like "blues" or "reggae" or "hip-hop". The QY100's 128 styles are like mini-arrangements in different musical styles, including drums/percussion, bass, chords, counter-lines, etc., depending on the requirements of the style. Each style is further sub-divided into "sections".

● Sections

Each style has a number of "sections", as listed below.

INTRO	As the name implies, this section will normally function as the introduction to a song.
MAIN A	The MAIN A section is the one you'd normally use as the verse of a song.
MAIN B	This is a variation of the MAIN A section which can be used as the chorus or "bridge" section of a song.
FILL AB	A break or "fill" that connects the MAIN A section to the MAIN B section.

FILL BA	A fill that connects the MAIN B section to the MAIN A section.
ENDING	An ending pattern which finishes the song. Playback stops automatically when the ending pattern finishes playing.
BLANK	When you select the "BLANK" section no sound is produced by the QY100 until you select another section, but the QY100 keeps counting time so that when you do select another section that section will come in with the proper timing.

● Patterns

Quite simply, each "section" of each "style" is a pattern. The INTRO section of the "FunkRock" style is a pattern, as is the MAIN B section of the "BritPop" style. Thus, with 128 styles, each having 6 sections (we don't count the BLANK section, for obvious reasons), you have a total of 768 individual patterns.

● Chord Templates

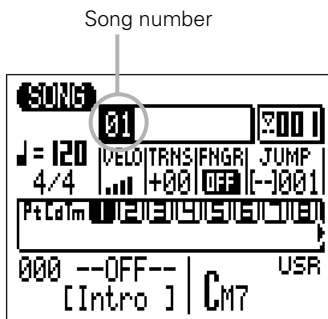
If you simply select and play a section of a style, the style will play but without any "harmonic motion". Which is simply a fancy way of saying "without chord changes". The style will play with the currently selected chord until you enter a new chord manually or program an original chord progression. But we'll leave manual chord entry and chord progression programming for a later chapter, because the QY100 actually provides 99 preset chord progressions that you can simply select and play! These "chord templates" include a wide range of "standard" progressions — some you might recognize from your favorite songs — commonly used in a wide range of musical genres.

Check Out the Preset Styles

The QY100's preset styles can be selected and played in the SONG mode.

1 Select the SONG mode & an Empty Song

Press the [SONG] button to select the SONG mode then, if necessary, make sure the cursor is located at the song number at the top of the display and use the [+1] and [-1] buttons to select an "empty" song.



The SHIFT-Number Data Entry Method:

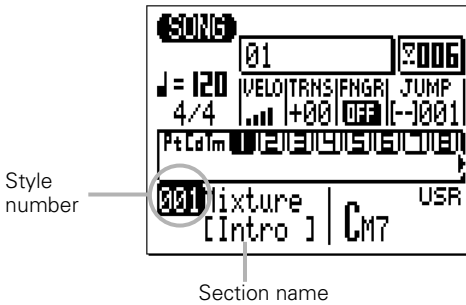
You can also use the SHIFT-Number method to enter song numbers or other data values. Use the numbered black keys on the micro-keyboard to enter the required number while holding the [SHIFT] button, then press the [ENTER] button.

■ NOTE

- If for some reason all 20 songs contain data, use the "Clear Song" job described on page 179 to clear a song for recording.

2 Highlight the Style Number

The bottom left-hand area of the QY100 display is the style and section selection area.



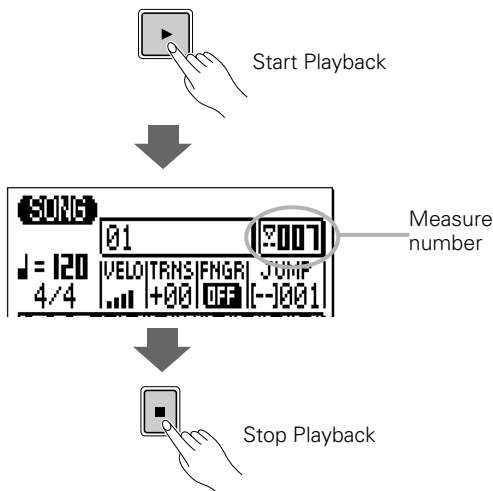
To select a style, first move the cursor to the style number on the display.

3 Select a Style

Use the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34) to select the style you want to play (refer to the "Style List" of the separate Data List booklet for details about each individual style).

4 Start Playback

Press the sequencer [▶] button to begin playback of the selected style, and the [■] button to stop playback, as required.

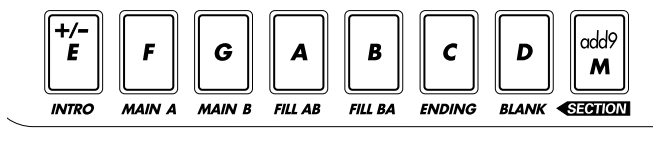


● Two Methods To Select Sections

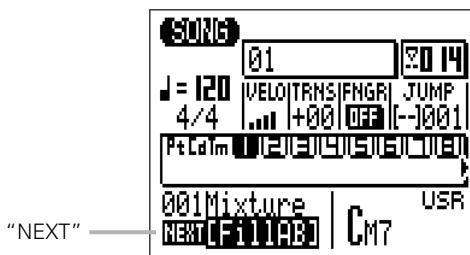
There are two ways to select the section you want to play:

Method 1: Move the cursor to the section name at the bottom of the display and use the [-1] and [+1] buttons or SHIFT-Number entry method (page 34) to select a section.

Method 2: Simply press the key on the mini-keyboard corresponding to the section you want to select (note that the 7 left-most white keys on the mini keyboard have the names of the sections printed below them). The mini-keyboard method will only work while the cursor is located within the style and section selection area of the display.



Either method you choose, when a different section is selected while the style is playing, the newly selected section will begin playing from the top of the next measure. "NEXT" will appear before the newly-selected section name until it actually begins playing.



When the INTRO, FILL AB or FILL BA section is selected while the style is playing, it will play through once and then playback will automatically return to the MAIN A or MAIN B section; INTRO is

followed by MAIN A, FILL AB is followed by MAIN B, and FILL BA is followed by MAIN A. If you selected the ENDING section, playback will stop automatically once the ENDING section has played all the way through.

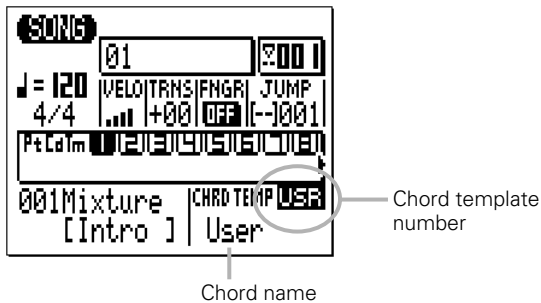
- Any Section (or no section) → **INTRO** → MAIN A
- Any Section → **FILL AB** → MAIN B
- Any Section → **FILL BA** → MAIN A
- Any section → **ENDING** → Playback Stops

Add Chords & Play Along!

Now that you have the pattern of your choice grooving along on your QY100 (if you don't, select and play one now), Let's hear how it sounds with some of the preset chord templates.

1 Highlight the Chord Template Parameter

The bottom right-hand area of the display is the chord and chord template selection area. Move the cursor to the upper right corner of this area.



2 Select a Preset Chord Template

Use the [-1] and [+1] buttons to select and listen to some of the preset chord templates (numbered P01 through P99). When the cursor is located at the chord template number, the name of the selected chord template appears below the chord template number. If you move the cursor away from the chord template number the name of each individual chord is displayed in the same location as the accompaniment plays back.

NOTE

- The fact that the QY100 displays the chord names as it plays can be a great learning tool! Watching the chord names as the progressions plays — you can play along, too — allows you to associate the chords with the overall sound they produce in each progression. With a little time and effort you should be able to recognize chord progressions by ear.
- All chord templates are originally in the key of C. To change the key use the TRNS (Transpose) parameter to transpose the entire song to the desired key (page 123).

Some of the chord templates are standard progressions — such as the basic I – VI – II – V7 progression of the POPS-M01 template (P01). Others may be a little more unusual, but none the less interesting or useful. See the “Chord Template List” of the separate Data List booklet for a complete listing of the 99 available chord templates and their chord progressions. Spend some time combining various styles with chord templates and see what you can come up with! Don’t forget to try selecting the various sections of each style to hear how they sound with the selected chord template(s).

Record Your Own Chord Progression & Pattern Changes

Now that you're familiar with the QY100's styles, patterns, and preset chord templates, let's try recording a short accompaniment with pattern changes and an original chord progression.

As an example that can be programmed quickly and easy let's use the HipHop2 style (style number 035) with the following arrangement:

INTRO (4 measures) → **MAIN A** (7 measures) →
FILL AB (1 measure) → **MAIN B** (7 Measures) →
FILL BA (1 measure) → **MAIN A** (8 measures) →
ENDING

■ NOTE

- The reason that the first two occurrences of MAIN A and MAIN B are 7 measures long instead of 8 (a more normal "unit") is that the fills — FILL AB and FILL BA — function as the last measure of the 8-measure units.

The chord changes are oh-so-simple. The entire accompaniment uses only two chords — Cm7⁽¹¹⁾ and Fm7⁽¹¹⁾ — as follows:

INTRO							
Cm7 ^{(11)*}	%		%		%		
MAIN A							FILL AB
Cm7 ⁽¹¹⁾	%		Fm7 ⁽¹¹⁾	%		Cm7 ⁽¹¹⁾	%
MAIN B							FILL BA
Cm7 ⁽¹¹⁾	%		Fm7 ⁽¹¹⁾	%		Cm7 ⁽¹¹⁾	%
MAIN A							
Cm7 ⁽¹¹⁾	%		Fm7 ⁽¹¹⁾	%		Cm7 ⁽¹¹⁾	%
ENDING							
Cm7 ^{(11)*}	%		%		%		

* The INTRO and ENDING sections have their own chord progressions — you only need to specify the starting chord (Cm7⁽¹¹⁾)

1 Select the SONG mode & an Empty Song

Press the [SONG] button to select the SONG mode then, if necessary, make sure the cursor is located at the song number at the top of the display and use the [+1] and [-1] buttons to select an “empty” song.



The SHIFT-Number Data Entry Method:

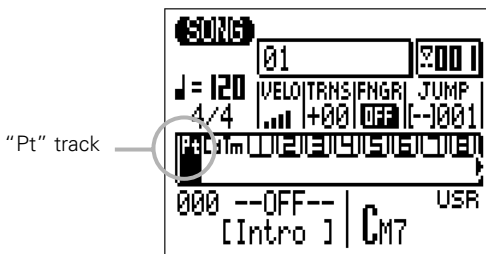
You can also use the SHIFT-Number method to enter song numbers or other data values. Use the numbered black keys on the micro-keyboard to enter the required number while holding the [SHIFT] button, then press the [ENTER] button.

■ NOTE

- If for some reason all 20 songs contain data, use the “Clear Song” job described on page 179 to clear a song for recording.

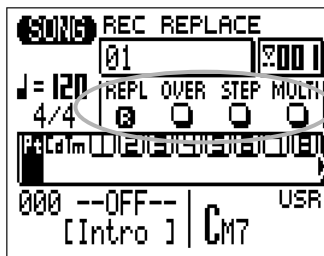
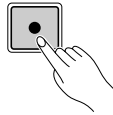
2 Select the “Pt” Track to Record the Pattern Changes

Move the cursor to the track area of the display, then move the cursor sideways to select the “Pt” (Pattern) track. Once the “Pt” track has been selected, move the cursor vertically to access other areas of the screen (moving it sideways will select a different track). The selected track will remain highlighted even after moving the cursor to other areas of the screen.



3 Engage the Record Ready Mode

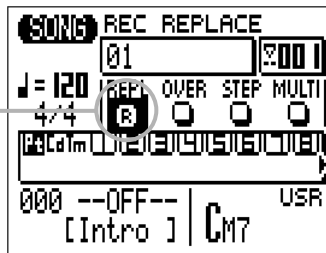
Press the **[●]** button to engage the record ready mode. The red LED above the **[●]** button will light. The record mode selectors will appear in the central area of the display, and the name of the current record mode will appear at the top of the display.



Record mode selector

4 Select the Realtime Replace Record Mode

If the realtime replace record mode isn't already selected, move the cursor to the "REPL" button in the record mode area of the display and press the **[ENTER]** button. An inverse "R" appears in the selected record mode button.



Selected record mode button

5 Select the Starting Pattern, Chord, and Tempo

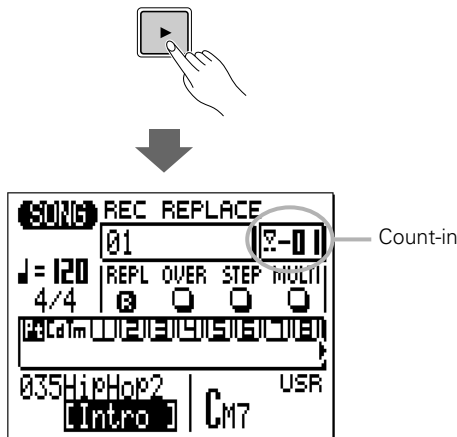
Move the cursor to the style number, section, chord, and tempo parameters and set as required (these will be the starting values for your accompaniment).

NOTE

- Just for the purpose of recording, you can set the tempo parameter at a slower value than the actual playback tempo you will use, so you have plenty of time to enter pattern and chord changes.

6 Record the Pattern Changes

Press the [▶] button to begin recording the pattern changes to the QY100's pattern track. The metronome will sound and you'll be given a one-measure count-in before recording actually begins (the number of count-in measures can be changed via the Utility mode — page 245). The count-in is also indicated by negative numbers in the measure-number area of the display. With the default count-in setting of one measure, “-01” will appear during the count-in, then recording will begin from measure “001”.



Entering Pattern Changes

The cursor will automatically move to the style number when you start recording on the pattern track. You can record style number changes by using the [+1] and [-1] but-

tons or the SHIFT-Number entry method (page 34) to select the desired styles. For our example, however, you'll only be selecting sections with the HipHop2 style, so there's no need to change style numbers. The easiest way to enter section changes is to simply press the appropriate micro-keyboard keys at the appropriate times during recording. Remember that all pattern changes occur at the top of the next measure after they have been entered. Also keep in mind the fact that some sections automatically switch to another section once they have played through: INTRO to MAIN A; FILL AB to MAIN B; FILL BA to MAIN B. You should finish your accompaniment track with the ENDING pattern, otherwise your accompaniment will play back indefinitely.

The pattern changes you'll want to record are as follows:

INTRO (measures 1 ... 4): This is the starting pattern (you should have already selected the INTRO pattern in step 5, above).

MAIN A (measures 5 ... 11): The MAIN A pattern will automatically be selected after the INTRO finishes, so you don't have to manually select the MAIN A pattern.

FILL AB (measure 12): Press the [FILL AB] key on the micro-keyboard during measure 11, that way the FILL AB pattern will start playing from the top of measure 12.

MAIN B (measures 13 ... 19): The MAIN B pattern will automatically be selected after the FILL AB pattern plays through once, so you don't need to select it manually.

FILL BA (measure 20): Press the [FILL BA] key on the micro-keyboard during measure 19, that way the FILL BA pattern will start playing from the top of measure 20.

MAIN A (measures 21 ... 28): The MAIN A pattern will automatically be selected after the FILL BA pattern plays through once, so you don't need to select it manually.

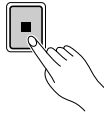
ENDING (measures 29 ... 32): "--END--" will appear in place of the style name when the ENDING pattern has finished playing.

■ **NOTE**

- The ENDING pattern repeats the playback in the realtime record mode. But it will finish the song automatically when playing back the song in step 11.

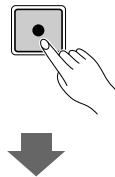
7 Stop Recording

Press the [■] button to stop recording and return to the SONG mode.

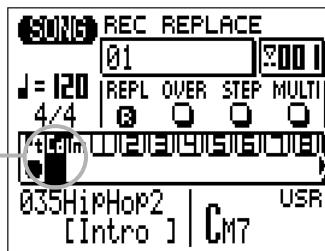


8 Engage Record Ready Again and Select the "Cd Track

Press the [●] button to engage the record ready mode again (the "REPL" record mode will still be selected), then move the cursor to the track area of the display and select the "Cd" (Chord) track.

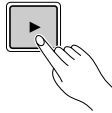


"Cd" track



9 Record the Chord Changes

When you press the [▶] button to begin recording to the chord track, the metronome will sound and you'll be given a count-in in the same way as described in step 6, above. Once recording begins (the cursor will automatically move to the chord name area of the display), you can enter the required chord changes at the appropriate points in the accompaniment as follows:

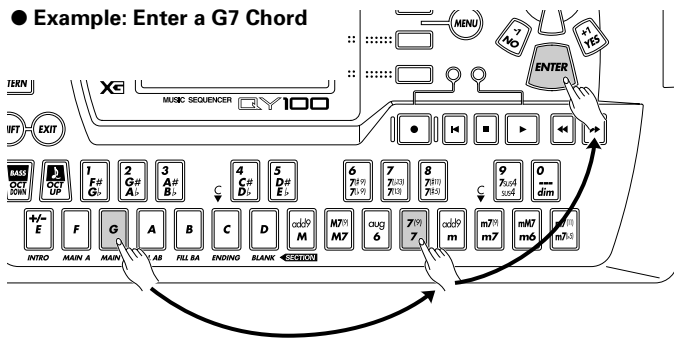


Entering Chord Changes

Chords are entered via the QY100 micro-keyboard. Note that the lower octave of the keyboard has chord root names "E" through "D#/E♭" marked on the keys, and the upper octave keys are marked with a variety of chord types. To enter a chord, press the key corresponding to the desired chord root, then the key for the desired chord type (the chord type keys alternately select the upper and lower chord types marked on them ... watch the display), and then press the [ENTER] button (refer to the "Chord Type List" of the separate Data List booklet for a list of the available chord types). If a chord is to be followed by a different chord of the same type, you don't have to re-enter the chord type.

CHORD ROOT → CHORD TYPE (if necessary) → [ENTER]

● Example: Enter a G7 Chord



The chord is actually entered only when the [ENTER] button is pressed (until then, the chord root and type will flash on the display). Note that chord changes actually occur on quarter-note divisions, so try to press the [ENTER] button to record each chord change either precisely on the beat or just slightly before the beat on which you want the change to occur. Syncopated chord changes can be programmed in the STEP record mode (page 89).

You can also enter the chord changes by playing the micro keyboard (page 69).

Record the chord changes as follows:

INTRO (Cm7⁽¹¹⁾): The preset INTRO patterns have their own chord progressions. Although you can specify the chord root (key), chord types such as “M” or “m6” will be ignored. Since “Cm7⁽¹¹⁾” has already been selected as the starting chord (step 5, above), there’s no need to enter any chords for the INTRO at this point.

MAIN A (Cm7⁽¹¹⁾/Fm7⁽¹¹⁾): The progression simply alternates between the Cm7⁽¹¹⁾ and Fm7⁽¹¹⁾ chords every two measures: Cm7⁽¹¹⁾ for measures 5 and 6, Fm7⁽¹¹⁾ for measures 7 and 8, and so on.

FILL AB (Fm7⁽¹¹⁾): There’s no need to enter a chord for the FILL AB pattern, the Fm7⁽¹¹⁾ chord carries through until the MAIN B pattern begins.

MAIN B (Cm7⁽¹¹⁾/Fm7⁽¹¹⁾): The same 2-measure alternating Cm7⁽¹¹⁾ and Fm7⁽¹¹⁾ progression continues.

FILL BA (Fm7⁽¹¹⁾): The Fm7⁽¹¹⁾ chord carries through until the MAIN A pattern begins.

MAIN A (Cm7⁽¹¹⁾/Fm7⁽¹¹⁾): The same 2-measure alternating Cm7⁽¹¹⁾ and Fm7⁽¹¹⁾ progression continues.

ENDING (Cm7⁽¹¹⁾): Like the INTRO patterns, the preset ENDING patterns have their own chord progressions.

Although you can specify the chord root (key), chord types will be ignored.

10 Stop Recording

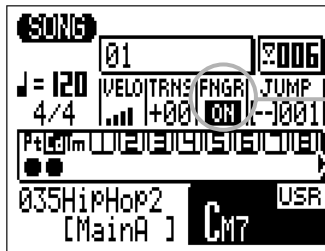
Press the [■] button to stop recording and return to the SONG mode.

11 Play Your Accompaniment

Press the [▶] to play back your accompaniment.

Fingered Chords

The QY100 also has a “Fingered Chord” mode which allows chords to be played as required on the micro-keyboard, rather than by specifying the chord root and type as described above. To turn this function on move the cursor to the “FNGR” parameter in the SONG mode display before recording, and press the [ENTER] button to select “ON”. When you record using the Fingered Chord mode, you do not have to press [ENTER] after playing each chord ... the chords are entered as they are played.

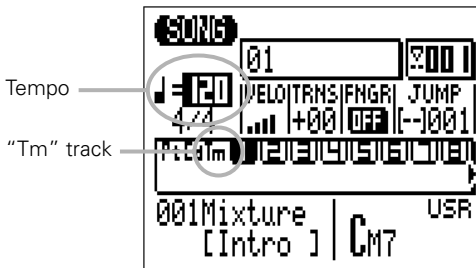


Fingered chord function

Tempo Changes, too ...

Tempo changes can be recorded to the QY100 "Tm" (Tempo) track in much the same way that pattern changes are recorded to the pattern track and chord changes to the chord track.

After recording your pattern and chord tracks select the "Tm" tempo track, press the [●] button to engage the record ready mode (only realtime replace recording can be selected for the tempo track), press [▶] to start recording (the cursor will automatically move to the tempo parameter), then use the [+1] and [-1] buttons or the SHIFT-Number entry method (page 34) to specify the required tempo changes at the appropriate times during recording. Press [■] to stop recording. Tempo changes can be edited in detail as described on page 216.



■ NOTE

- If you do record tempo changes to your accompaniment, be sure to record the starting tempo at the beginning of the sequence as well.

If You Make Mistakes ...

Don't worry. A few mistakes made in the realtime record can usually be corrected quite easily in the STEP record mode described on page 81

Add Some Details to Complete the Accompaniment

“Be sure to complete the preceding section before beginning this one.”

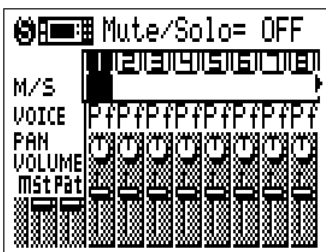
Although you could use the basic accompaniment we created in the previous section as backing for some inspired improvisation, in this section we'll add some simple embellishments that give the track a little more personality. You can easily take the procedures we cover in this section and apply them to creating complete songs on the QY100.

Voice Assignments

Before actually beginning to record the sequencer tracks, switch to the SONG VOICE mode and assign the voices you plan to use to the appropriate SONG MODE sequencer tracks. You can make or change voice assignments later if you like, but it's a good idea to record with the voices you actually intend to use in the song.

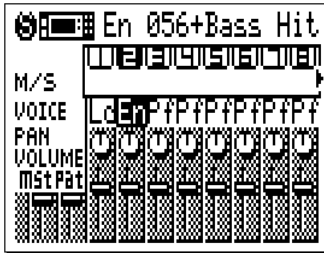
1 Select the SONG VOICE Mode

From the main SONG mode display, press the [SONG] button once so that the SONG VOICE mode display appears.



2 Select the Voices

Move the cursor to the voice selector for track 1, and use the [+1/YES] and [-1/NO] buttons or the SHIFT-Number entry method (page 34) to select "Ld 081 SquareLd" (the full voice name appears at the top of the display).
Next, Move the cursor to the track-2 voice selector, and select "En 056+Bass Hit".



3 Return to the Main SONG Mode Display

From the SONG VOICE display press the [SONG] button twice to bypass the SONG EFFECT display and return to the main SONG mode display.



Realtime Recording on the Sequencer Tracks

Here's the score for the parts we'll record on tracks 1 and 2. The upper (treble) staff goes on track 1 and the lower (bass) staff goes on track 2. If you don't read music or simply couldn't be bothered, just record whatever sounds good to you. Making music should never be a chore.

♩ = 120

081 SquareLD

056+ Bass Hit

081

056+

081

056+

081

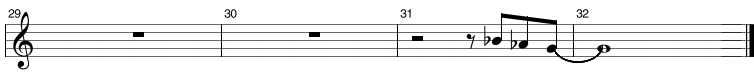

056+

Add Some Details to Complete the Accompaniment

081 
056+ 

081 
056+ 

081 
056+ 

081 
056+ 

1 Select a Track to Record

Move the cursor to the track area of the display, and then move the cursor sideways to select the track you want to record — 1 through 16. In this case you'll probably want to record the first part on track 1. Note that although the display only shows 8 of the available 16 tracks at a time, you can simply use the cursor buttons to scroll left or right to access the remaining tracks (an arrow appears to either the left or right of the track numbers to indicate that that more tracks can be accessed by scrolling in the corresponding direction). Once you've selected the track to record on, move the cursor vertically to access other areas of the display (the selected track will remain highlighted).



■ NOTE

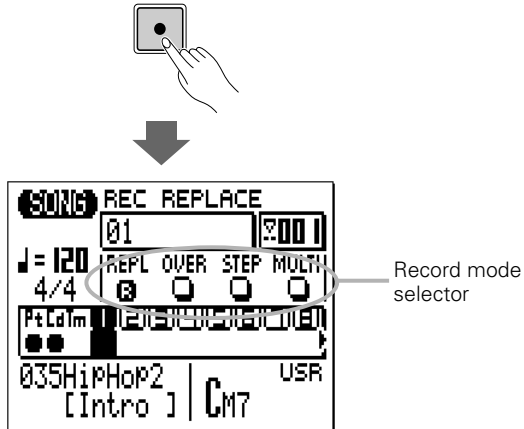
- If you will be recording via the QY100's own micro-keyboard, you can set the keyboard velocity via the "VELO" parameter. The velocity can be set in 10 levels — the more bars the higher the velocity. There are also four "random velocity" settings which produce different degrees of random velocity for each note played, simulating the velocity variations produced by a "human" player. The "R1" random setting produces the smallest variation and "R4" produces the greatest variation.



"VELO" parameter

2 Engage the Record Ready Mode

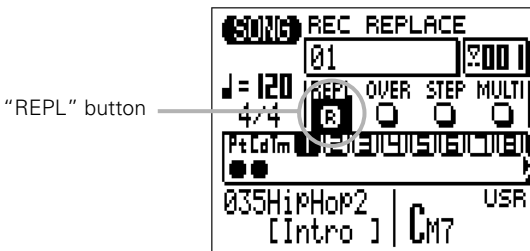
Press the [●] button to engage the record ready mode. The red LED above the [●] button will light. The record mode selectors will appear in the central area of the display, and the name of the current record mode will appear at the top of the display.



3 Select the Realtime Replace or Overdub Record Mode

Normally, when recording a new track from scratch you'll want to use the realtime replace record mode. To select it (if it isn't already selected) move the cursor to the "REPL" button in the record mode area of the display and press the [ENTER] button. An inverse "R" appears in the selected record mode button.

If you've already recorded some material on a track and want to record additional notes without erasing the existing material, select the realtime overdub record mode ("OVER" on the display) instead of the "REPL" mode.



■ **NOTE**

- There are other record modes other than “REPL” and “OVER”. For details about “STEP”, see page 91. For details about “MULTI”, see page 80.

4 Set the Tempo and Time Signature

For this example we’ll use the default tempo of 120 beats per minute and the default 4/4 time signature, so you shouldn’t need to make any changes. But when you do want to record with a different tempo or time signature, simply move the cursor to the tempo and time signature parameters and set them as required via the [+1/YES] and [-1/NO] buttons.

Tempo and time signature parameters



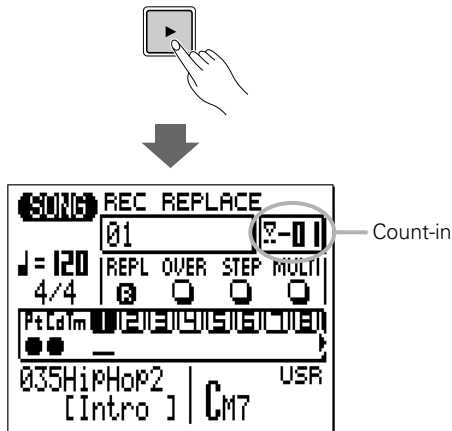
■ **NOTE**

- As with pattern and chord recording, you can set the tempo parameter at a slower value than the actual playback tempo you will use, so you have plenty of time to enter the parts.

5 Record the First Track

Press the [▶] button to begin recording. The metronome and count-in work the same way as they do for pattern and chord recording: the metronome will sound and you'll be given a one-measure count-in before recording actually begins (the number of count-in measures can be changed via the Utility mode — page 245). The count-in is also indicated by negative numbers in the measure-number area of the display. With the default count-in setting of one measure, “-01” will appear during the count-in, then recording will begin from measure “001”.

Once recording begins, play the part on the QY100 micro-keyboard or on an external MIDI keyboard or other controller.

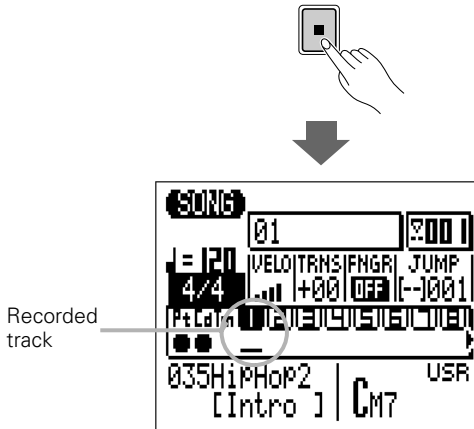


■ NOTE

- If you have trouble playing a part in real time (or you'd simply rather enter the notes with scientific precision), use the step recording mode described on page 91 to enter the notes one at a time, with complete control over note timing and duration.
- If you make a mistake (or two, or three ...) while recording, you can always go back and record the entire track again. But if only a few minor adjustments are needed, you might prefer to use the QY100 EDIT mode (page 216) to edit the track as required.

6 Stop Recording

Press the [■] button to stop recording and return to the SONG mode. Note that when you return to the SONG play mode a bar will appear below each track that contains data. This is the lowest segment of a “velocity meter” which will indicate velocity levels in the track during playback.



7 Record the Next Track

Press the [●] button to engage the record ready mode again (the “REPL” or “OVER” record mode will still be selected — leave this setting as is or change as necessary), then move the cursor to the track area of the display and select the next track to record (in this case, track 2).

Press the [▶] button to begin recording, and record the next track in the same as the first track described above.

■ NOTE

- To extend this process to record a complete song on the QY100 sequencer tracks, simply assign the voices for your tracks and record as many as your song needs (up to 16, of course) one after the other.
- Use the SONG JOBS (page 145) to make further adjustments to your recorded tracks, as necessary. If your timing is a little off, for example, use the “Quantize” job to pull everything into line. Take a look at the SONG JOB LIST on page 146 for an idea of the types of jobs that are available.

8 Stop Recording

Press the [■] button to stop recording and return to the SONG mode.

9 Play Your Accompaniment

Press the [▶] to play back your accompaniment complete with sequencer-track additions.

About the “MULTI” Recording

If you select the “MULTI” mode in step **3** on page 76, the QY100 will simultaneously record data received over MIDI channels 1 to 16 onto the corresponding sequencer tracks (1 to 16). This is useful when you want to record a multipart recording from a computer or another sequencer in real time, or when you want to record from a MIDI instrument (such as a MIDI guitar) that outputs over multiple channels.

Before starting the multipart recording, be sure to set the MIDI Sync to “External” (page 247), MIDI Control to “In” or “In/Out” (page 247), Rec Count to “OFF” (page 245). Then engage the record ready mode (page 76) and select “MULTI” record mode. When you start the external computer or sequencer, the QY100 will start multipart recording automatically.



Step Accompaniment Recording

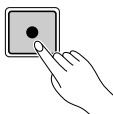
The STEP record mode can be used with the “Pt” (Pattern) and “Cd” (Chord) tracks, making it easy to individually enter or delete pattern and chord changes at precisely the required locations.

1 Select a Song to Record

Select an empty song if you want to record a new song in the step record mode, or select a song that already contains data if you want to make changes or additions.

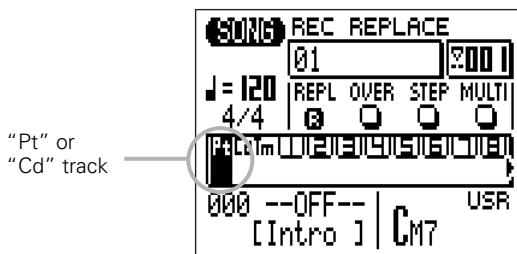
2 Engage the Record Ready Mode

Press the  button to engage the record ready mode. The red LED above the  button will light.



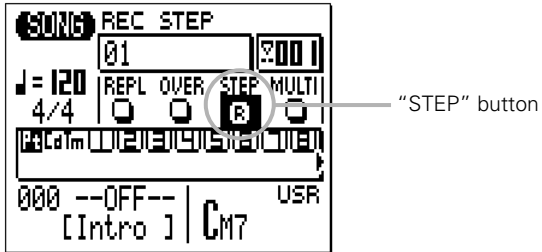
3 Select the “Pt” or “Cd” Track

Move the cursor to the track area of the display, and then shift the cursor sideways to select “Pt” or “Cd”. Once selected, move the cursor vertically if you want to move to other areas of the screen. The selected track will remain highlighted no matter where you move the cursor.



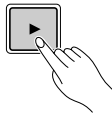
4 Select the Step Record Mode

Move the cursor to the record mode selector area of the display (the area with the “REPL”, “OVER”, “STEP”, and “MULTI” buttons), and move it to the “STEP” button, then press the [+1/YES] button to select the step record mode. An inverse “R” will appear in the selected record mode button.

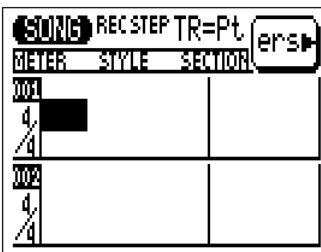


5 Start Recording

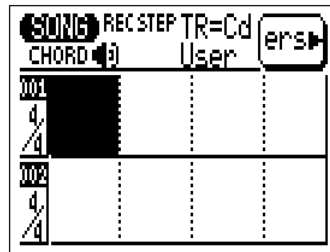
Press the [▶] button to call the selected step record display.



“Pt” step record



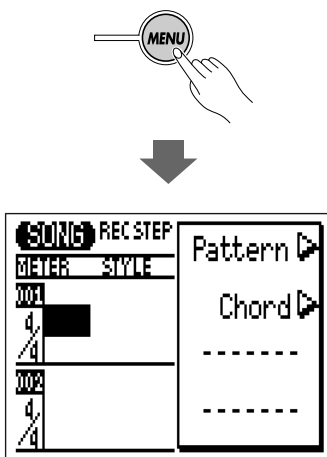
“Cd” step record



6 Enter the Required Pattern and/or Chord Data

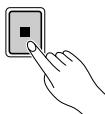
Refer to the following sections for details on how to use each of the step-record mode data-entry displays.

You can switch directly between the pattern and chord data-entry displays while the step record mode is engaged simply pressing the [MENU] button to call the menu shown below, and then the function button corresponding to the display you want to go to.



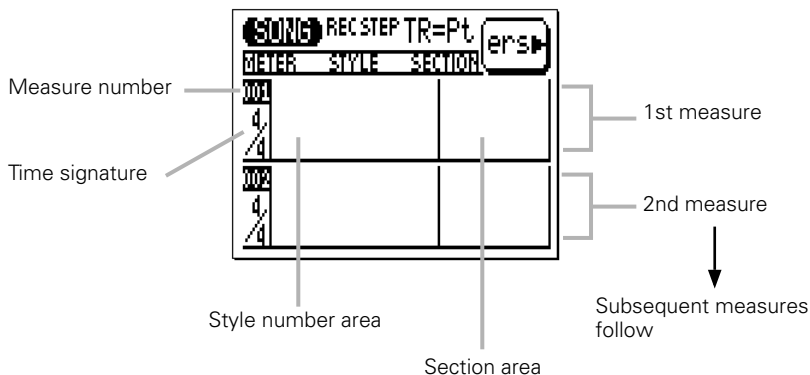
7 Stop Recording

Press the [■] button to exit from the step record mode and return to the normal SONG play mode.



“Pt” — Step Record Pattern Changes

Here’s how the STEP record pattern display will look if you’ve selected an empty song (the appropriate pattern data will appear if the selected song contains data).



● Moving Around & Entering Data

As usual, the cursor buttons are used to move the cursor to the location at which you want to enter data, and the [-1] and [+1] buttons are used to actually enter or change data.

The cursor buttons also move you forward or backward through the song: moving the cursor past the bottom of the screen accesses subsequent measures, while moving it above the top of the screen accesses the preceding measures (if there are any). In the pattern display moving sideways takes you to the time signature, style number, and section parameters.

In all of the STEP record displays the sequencer buttons can also be used to move forward or backward through the song.

- [|◀] Go to first measure.
- [◀◀] Scroll up (see lower measure numbers)
- [▶▶] Scroll down (see higher measure numbers)

● Style Number and Section

Any preset style number from 001 through 128, the “end pattern” (number 129), or any user style number from U1 through U64 can be entered for each measure. The style name appears to the right of the style number. Only one style & pattern (section) can be entered per measure, and that pattern will begin playing from the beginning of the measure at which it is entered.

A pattern entered once will continue to play until a different pattern is entered. If you want to change sections without changing the style number, only the section need be entered. Playback will stop automatically when an “end pattern” (style number 129) or an ending section is encountered.

In the example display below the intro pattern (section) of style 001 plays for the first measure, then the main A pattern (section) of the same style is selected in measure 2.

SONG REC STEP TR=Pt (ers)		
METER	STYLE	SECTION
001 4/4	001Mixture	Intro
002 4/4		MainA

Style number/name

Section

● Time Signature

Although the default time signature for the selected song is automatically selected, the time signature value for each measure can be changed as required. The available time signatures are:

1/16 ... 16/16

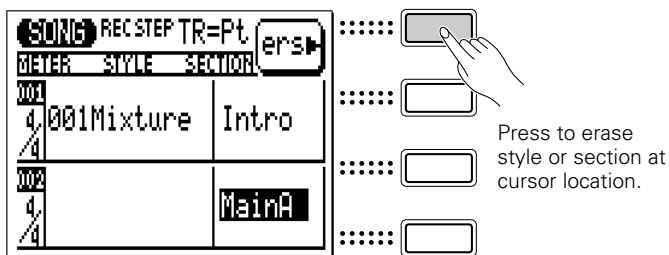
1/8 ... 16/8

1/4 ... 8/4

If a time signature is selected that results in shorter measures than the pattern default, the pattern will be truncated (cut short) accordingly. If the selected time signature results in longer measures than the pattern default, the pattern will be repeated to fill the specified measure length.

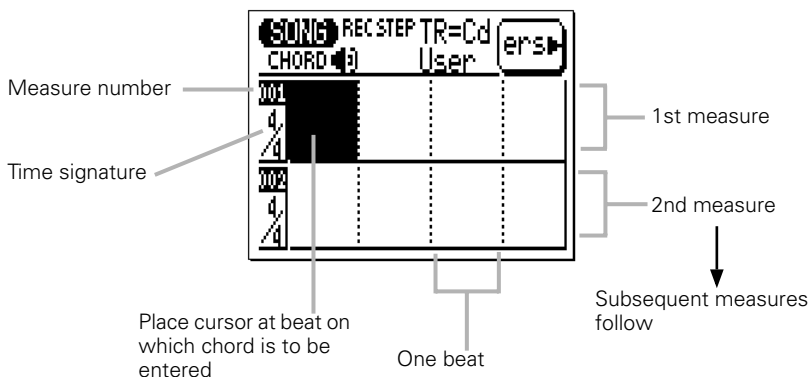
● Erasing Pattern Changes

The function button immediately to the right of "ers" on the display can be used to erase style number or section data at which the cursor is located.



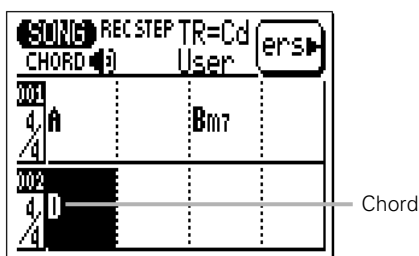
“Cd” — Step Record Chord Changes

Here’s how the STEP record chord display will look if you’ve selected an empty song (the appropriate chord data will appear if the selected song contains data).



● Chords

One chord can be entered per quarter note. Place the cursor at the required quarter-note division on the display and enter the chord by specifying the root and type via the micro-keyboard (see page 67). In the example display below, an A major chord is entered on the first beat of the first measure, a B minor seventh on the third beat of the first measure, and a D major on the first beat of the second measure.

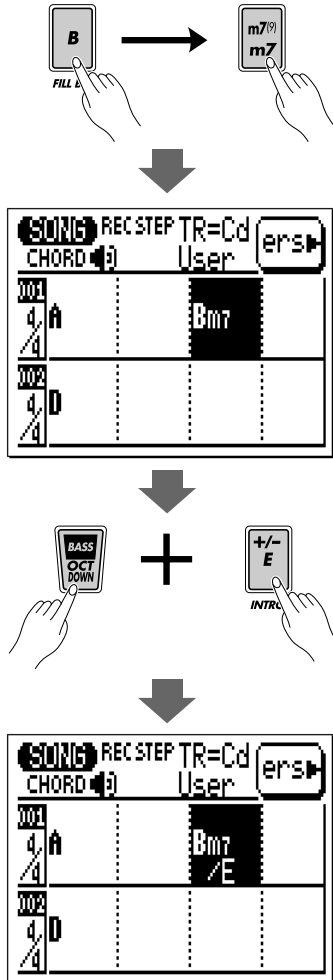


You can also enter a chord by playing the chord as it is on the micro keyboard or an external keyboard if the Fingered Chord function(FNGR) is previously set to “ON”.

● Specifying the Bass Note For a Chord

You can specify the bass note to be used with any chord by using the [OCT DOWN] button (note the “BASS” marking above the button). Enter the chord by specifying the root and type, then press the key on the micro-keyboard corresponding to the desired bass note while holding the [OCT DOWN/BASS] button. The bass note will appear to the right of a slash below the chord name.

Example: Bm7 with E bass



■ NOTE

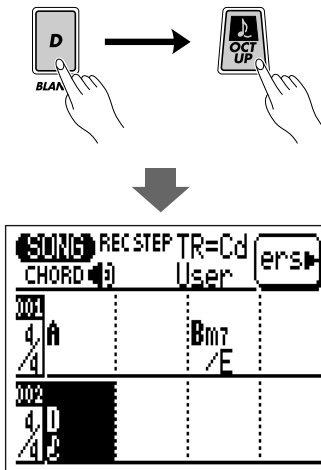
- You can add bass notes to existing chords without having to re-enter the entire chord by simply moving the cursor to the chord and using the [OCT DOWN/BASS] button to specify the bass note. A bass note can be removed from a chord by placing the cursor at the chord and re-entering the chord.

If FNGR is set to “ON”, a bass note can be entered by pressing a key for a bass note on the left part of the micro keyboard or an external keyboard while holding the chord. (The “left part” range for entering a bass note can be specified in the Utility mode on page 252.)

● Syncopated Chords

Chords can be syncopated (i.e. the chord actually begins an eighth or sixteenth note before the beat on which it is entered) by using the [OCT UP] button (note the “♪” marking above the button). Enter the chord, then press the [OCT UP] button once for eighth-note syncopation, or twice for sixteenth-note syncopation (the appropriate syncopation symbol will appear below the chord name).

Example: D chord syncopated (8th note)

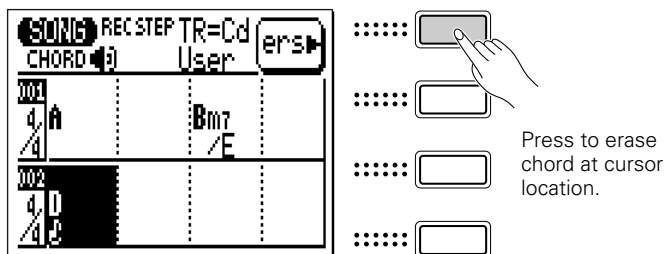


■ **NOTE**

- You can add syncopation to existing chords without having to re-enter the entire chord by simply moving the cursor to the chord and pressing the [OCT UP] button. Syncopation can be removed from a chord by placing the cursor at the chord and pressing the [OCT UP] once or twice so that the syncopation symbol disappears.

● **Erasing Chords**

The function button immediately to the right of “ers” on the display can be used to erase the chord at which the cursor is located.



● **Sound On/Off**

You can hear the sound of entered chord in step recording. If you don't want to hear the sound, press the [MENU] button and then the function button next to “Sound” to call the Sound on/off display.

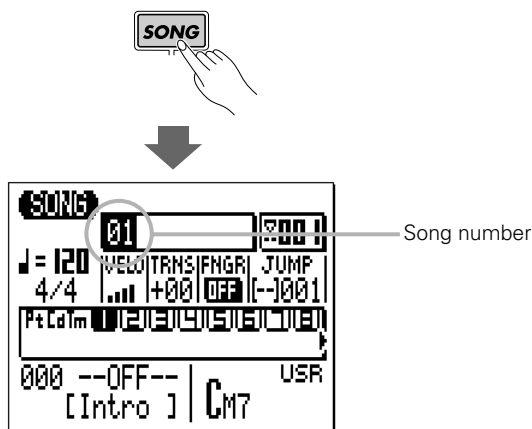
Press [-1/NO] button to turn the sound off, [+1/YES] button to turn on.

Step Sequencer Track Recording

The step record mode lets you enter each track note-by-note, with precise control over the timing, length, and loudness of each note. You can record entire tracks using the step mode, or use it to brush-up and add data to an existing track.

1 Select the SONG Mode & the Song To Be Recorded

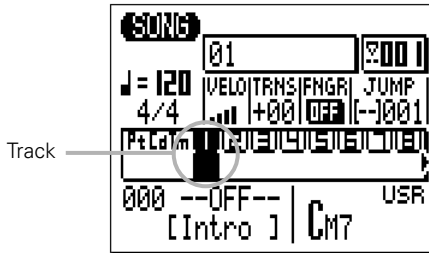
Use the [SONG] button to select the main SONG mode display and, with the cursor located over the song number at the top of the display, use the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34) to select the song you intend to record.



2 Select a Track to Record

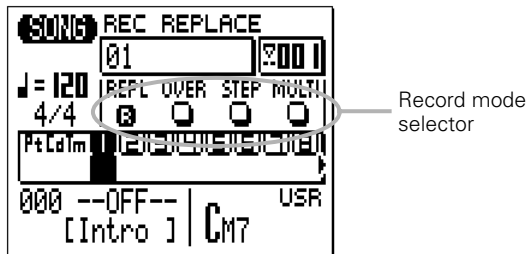
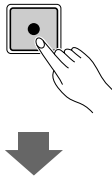
Move the cursor to the track area of the display, and then shift the cursor sideways to select the track you want to record: 1 through 16. The SONG display shows 8 of the 16 available tracks at a time. Use the cursor buttons to scroll left or right to the remaining tracks (an arrow appears at either the left or right of the track numbers to indicate that more tracks can be accessed by scrolling in the corresponding direction). Move the cursor verti-

cally to move to other areas of the screen. The selected track will remain highlighted.



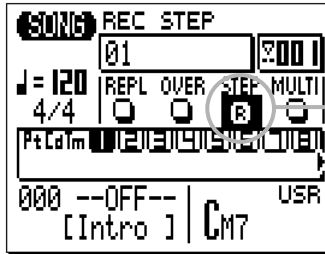
3 Engage the Record Ready Mode

Press the [●] button to engage the record ready mode. The red LED above the [●] button will light.



4 Select the Step Record Mode

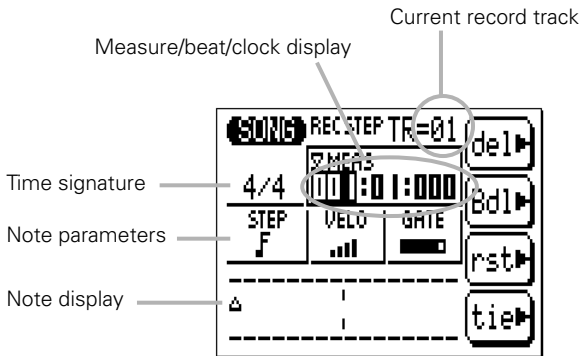
Move the cursor to the record mode selector area of the display (the area with the “REPL”, “OVER”, “STEP”, and “MULTI” buttons), and move it to the “STEP” button, then press the [+1/YES] button to select the step record mode (if it isn’t already selected). An inverse “R” will appear in the selected record mode button.



"STEP" button

5 Engage the Record Mode

Press the [▶] button to engage the step record mode. The step record display shown below will appear.



6 Set the Note Parameters as Required

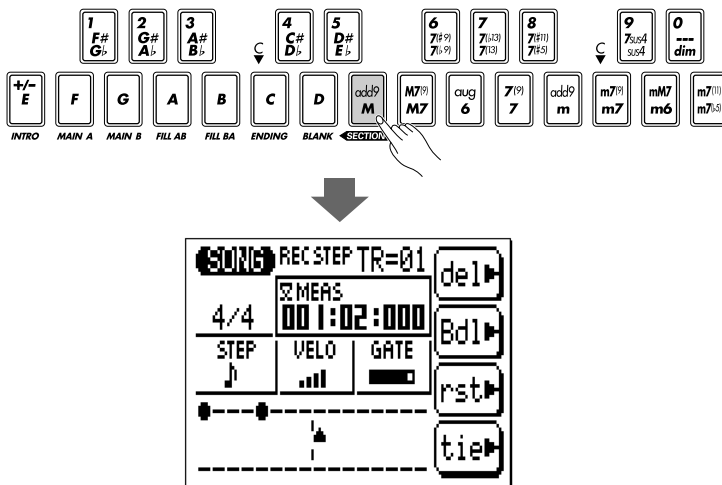
Move the cursor to the note, velocity, and gate time parameters and set as required using the [-1] and [+1] buttons for the first (or next) note to be entered.



- STEP (Note length)**
 32nd, 16th, 16th triplet, 8th, 8th triplet, quarter, quarter triplet, half, whole.
- VELO (Velocity)**
 More bars = higher velocity, adjustable in 10 steps (ppp, pp, p, mp, normal, mf, f, ff, fff, ffff).
 ■■■ ~ ■■■■ produces random velocity.
- GATE (Gate time)**
 ■■■ = staccato (50%).
 ■■■■ = normal (90%).
 ■■■■■ = slur (99%).

7 Enter a Note

Once the note parameter have been specified, the note can be entered simply by playing the appropriate key on the micro-keyboard (or on your external MIDI keyboard). A dot appears on the note display and the note pointer advances to the next note position. Chords are also indicated by a dot. Here's how the display will look after two 8th notes have been entered.

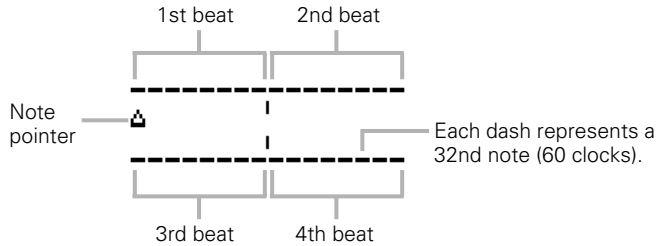


■ **NOTE**

- If you use an external MIDI keyboard for step recording, the QY100 always accepts velocity from the external keyboard regardless of the "VELO" setting.

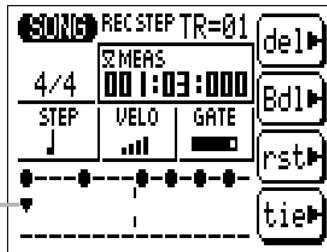
The Note Display

The note display shows up to four 1/4-notes worth of data at once (that's one measure in 4/4 time). If the selected time signature results in more than four 1/4 notes per measure, then the display will scroll to show the extra notes.



Moving Around In the Note Display

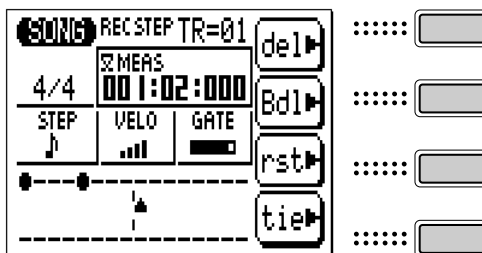
You can move the cursor down to the note display (the note pointer will appear filled) and move the note pointer to any position at which you want to enter a note, or to any note that you want to delete. You will actually hear the appropriate note or chord when the note pointer is moved to an existing note. When you move the note pointer past the end of the note display, the next measure will appear.



Cursor moved to note pointer (pointer filled). Note that the pointer points up to notes in the upper row and down to notes in the lower row.

The Step Mode Function buttons

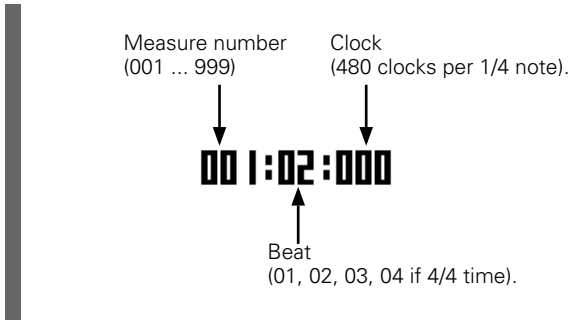
The four function buttons immediately to the right of the display provide access to a number of handy functions in the step record mode. The “del” (delete) button deletes the note or chord at the note pointer. The “Bdl” (back delete) button moves the note pointer backward by the currently selected note length and deletes the note at that position. The “rst” (rest) button enters a rest of the currently selected note length at the note pointer position. And the “tie” button lengthens the previously entered note by “tying” another note of the same length (specified by the STEP parameter) and pitch to it. The “tie” button only works immediately after entering a note.



The Measure/Beat/Clock Display

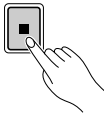
The “Meas” area of the step record display shows the current position of the note pointer in measures, beats, and clocks (there are 480 clocks per 1/4 note). If you’re not sure what measure you’re seeing on the note display while recording, check the measure/beat/clock display.

You can move the note pointer to any measure by moving the cursor to the measure number and entering the value with the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34).



8 Complete the Song

Repeat steps **6** and **7** until the current track is complete, then press **[■]** to stop recording and select the next track for recording, as necessary.



■ NOTE

- See the "Editing Songs & Patterns" section , page 216, for information on how to edit recorded song data.

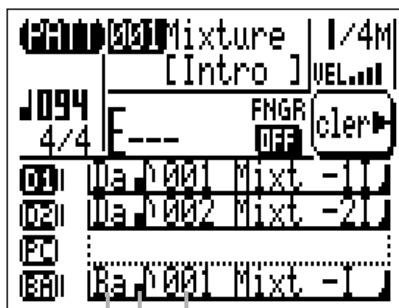
Creating Original Accompaniment Patterns

QY100 accompaniment patterns are created by combining “phrases” — either preset or original — in the PATTERN mode. A phrase is simply an individual “part” of a pattern — e.g. a drum phrase, a bass phrase, a keyboard phrase, etc. — using a single voice. The QY100 has 4,285 preset phrases, and 384 memory locations for original patterns (i.e., 64 user styles, each with independent INTRO, MAIN A, MAIN B, FILL AB, FILL BA, and ENDING sections).

You can also see phrase components of the preset patterns in the PATTERN mode.

The Preset Phrases

The QY100 has a total of 4,285 preset phrases that can be combined to create a virtually endless variety of accompaniment patterns. The preset phrase numbers have three sections, as shown below. The cursor can be placed at any of these three sections to select as required.



Number
Beat
Category

Category

Da	Drum-a (Pop&Rock)
Db	Drum-b (Specific)
Fa	Drum Fill-a (Pop&Rock)
Fb	Drum Fill-b (Specific)
PC	Percussion
Ba	Bass-a (Pop&Rock)
Bb	Bass-b (Specific)
Ga	Guitar Chord-a (Pop&Rock)
Gb	Guitar Chord-b (Specific)
GR	Guitar Riff
KC	Keyboard Chord
KR	Keyboard Riff
PD	Pad
BR	Brass
SE	Sound Effects

Beat

	16 Beat
	8 Beat
	3/4 Beat

Number

Differs depending on the category

■ NOTE

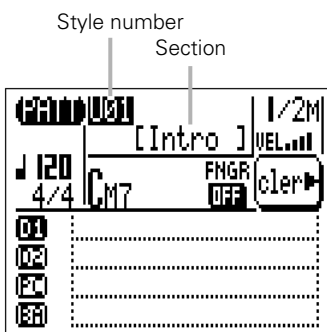
- For details on the phrase category, beat and number, refer to the Preset Phrase List of the separate Data List booklet.

Combining Phrases In the Pattern Mode

The phrases are combined to create patterns which can be used in accompaniments in the PATTERN mode.

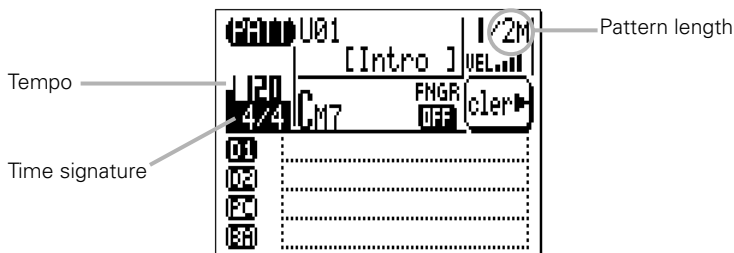
1 Select the PATTERN Mode, a User Style, & a Section

Press the [PATTERN] button to select the PATTERN mode then, with the cursor located at the style number, select a "user" style: "U00" through "U64". Also move the cursor to the section name and select the section you want to create.



2 Set the Pattern Length, Time Signature & Tempo as Required

If you're starting with an empty pattern, move the cursor to the pattern length parameter and set the desired pattern length from 1 to 8 measures. If necessary, also move the cursor to the time signature parameter and set as required (1/16 ... 16/16, 1/8 ... 16/8, 1/4 ... 8/4). The default tempo is 120, but you can move the cursor to the tempo parameter and set any other tempo that is suitable for your pattern.



NOTE

- The default pattern length for the *INTRO*, *MAIN A*, *MAIN B*, and *ENDING* sections is 2 measures, while the default length for the *FILL AB* and *FILLBA* sections is 1 measure.

3 Select a Pattern Track

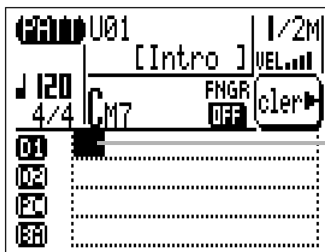
Phrases can be assigned to any of 8 “tracks” in the *PATTERN* mode. The pattern tracks are basically designed to be used with the phrase types listed below (thus the “D1”, “PC”, “BA”, “C1”, etc., track identifiers). In reality, any type of phrase can be assigned to any of the available tracks.

Track	Part	
D1	Drum 1	Drums Phrase
D2	Drum 2	Drums Phrase
PC	Percussion	Percussion Phrase
BA	Bass	Bass Phrase
C1	Chord 1	Chord backing phrase (Guitar, Keyboard, etc.)
C2	Chord 2	Chord backing phrase (Guitar, Keyboard, etc.)
C3	Chord 3	Chord backing phrase (Guitar, Keyboard, etc.)
C4	Chord 4	Chord backing phrase (Guitar, Keyboard, etc.)

NOTE

- For details on the available phrases, refer to the *Preset Phrase List* of the separate *Data List* booklet.

Move the cursor to the phrase-entry area of the track you want to assign a phrase to.

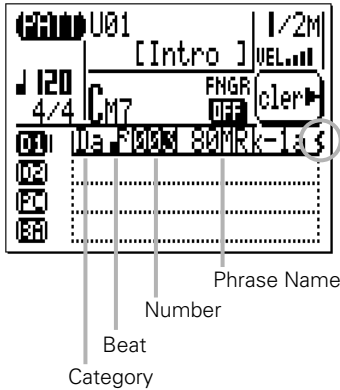


Cursor at D1 track

4 Enter the Required Phrase Number

Use the cursor buttons to move to the category, beat, or number parameter, then use the [-1] and [+1] buttons or the

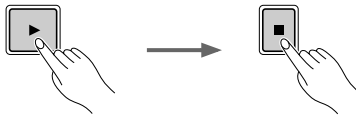
SHIFT-Number entry method (page 34) to select the desired phrase for that track.



If the assigned phrase is longer than the pattern length, this symbol (\$) appears. In this case, the exceeded part of the phrase will not be played.

Monitoring the Pattern

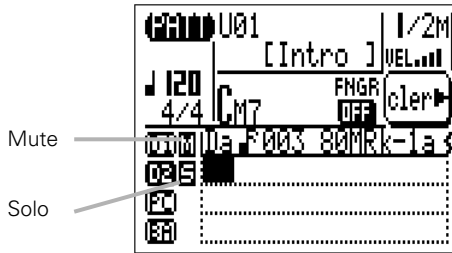
If you press the [▶] button while entering phrases you can hear how the pattern sounds as the various phrases are added. Press [■] to stop playback.



Muting & Soloing the Pattern Tracks

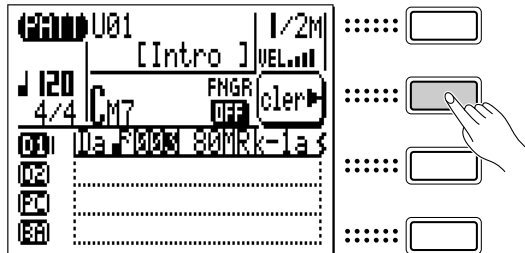
One or more PATTERN mode tracks can be muted or soloed by placing the cursor immediately to the left of the track (in the velocity-meter position) and using the [-1] or [+1] to mute or solo the track as required. Use the [-1] button to alternately mute or un-mute the selected track, or the [+1] button to alternately solo or un-solo the track. Any number of tracks can be muted and/or soloed at a time. To solo more than one track at a time hold the [SHIFT] button while soloing additional tracks after the first solo track has been specified. Also hold the [SHIFT] button while un-soloing a single track when multiple tracks are soloed (un-soloing a single track without holding the [SHIFT] button will un-solo all soloed tracks).

The letter “M” appears next to tracks that are muted, and the letter “S” appears when a track is soloed.



Clearing Phrases

Phrases can be cleared by placing the cursor at the appropriate phrase number, category, or beat and pressing the function button next to “cler” on the display.



Changing the Pattern Playback Chord

The chord used for pattern playback can be changed by placing the cursor at the chord location and entering the chord via the micro-keyboard and [ENTER] button as described on page 67. The bass note for “on-bass” chords can be entered via the lower octave of the micro-keyboard while holding the [OCT DOWN/BASS] button (the bass note will appear to the right of a slash next to the chord name).

You can also enter the chord by pressing the chord as it is on the micro keyboard or an external keyboard if “FNGR”(Fingered Chord function) is set to “ON”. In this case, a bass note can be entered by pressing a key for a bass note on the left part of the micro keyboard or an external keyboard while holding the chord. (The “left part” range for entering a bass note can be specified in the Utility mode on page 252.)

5 Repeat for as Many Tracks as Necessary

Repeat steps **3** and **4** to enter phrases for as many tracks as required (you don’t have to program all 8 pattern tracks).

6 Repeat for the Other Sections

Repeat the above procedure to complete the remaining sections of the style, as required.

■ NOTE

- See “The Pattern Jobs” on page 181 for details on the QY100’s pattern jobs which allow considerable versatility in creating and modifying patterns.
- You can also re-combine phrases on the preset pattern. To store the re-combination, execute the “Copy Pattern” (page 213) or “Copy Track” (page 210) job before changing the style number of the pattern.

Recording Original Phrases

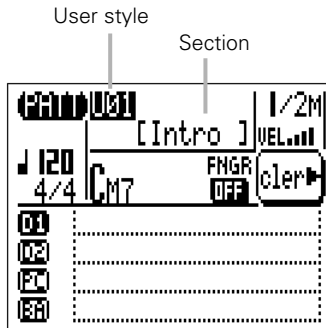
The QY100 makes it easy to create original accompaniment phrases. The PATTERN mode provides two ways to create original phrases: realtime and step recording.

Realtime Phrase Recording

In the realtime record mode you select the track you want to record, the voice you want to record with, and then play the part on the micro-keyboard or an external MIDI keyboard in real time.

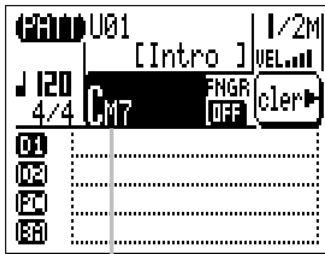
1 Select a User Style and Section

As described in the preceding section, begin by selecting a user style ("U01" through "U64") and a section ("INTRO", "MAIN A", etc.) in the PATTERN mode.



2 Select a Source Chord

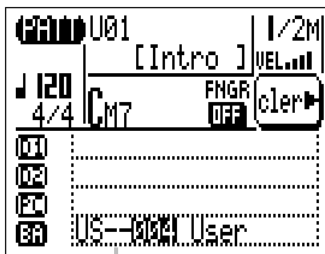
Move the cursor to the chord parameter and use the chord entry procedure described above to enter the "source chord" for the phrase you are recording (i.e. the chord on which the phrase is based). Note that you can not enter an "on-bass" chord for the "source chord".



Source chord

3 Select a Pattern Track and its “User” Phrase

Move the cursor to the track you want to create an original phrase for. To create a bass phrase, for example, select the “BA” (Bass) track. Then use the [+1] button to select the user phrase for that track (“Us-001” for Intro section’s D1 track through “Us-048” for Ending section’s C4 track, depending on the selected section and track.) If the track you intend to record is empty, you need not select the user phrase for that track.



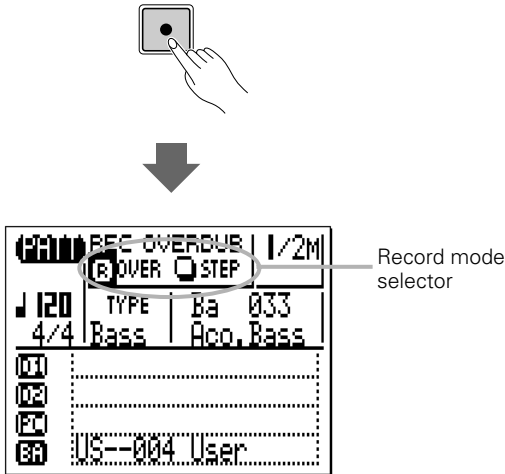
“User” phrase

■ NOTE

- Before engaging the record mode you can also set the micro-keyboard “velocity” via the “VEL” parameter in the upper right corner of the display. The velocity can be set in ten levels — the more bars the higher the velocity. There are also four “random velocity” settings which produce different degrees of random velocity variation. “R1 produces the smallest variation and “R4” produces the greatest variation.
- You can also set the micro-keyboard’s octave before engaging the record mode by pressing [OCT UP] or [OCT DOWN] button.

4 Engage the Phrase Record Ready Mode

Press the **[●]** button to engage the phrase record ready mode. The red LED will light, and the display will appear something like this:

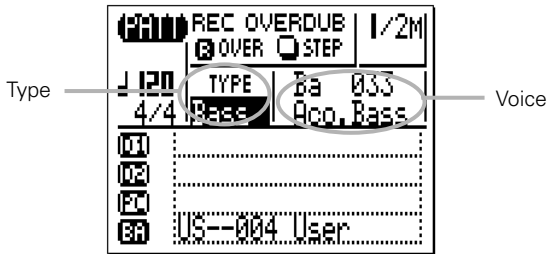


5 Select the Realtime Overdub Record Mode

Move the cursor to the record mode selector area of the display (the area with the “OVER” and “STEP” buttons), and move it to the “OVER” (realtime overdub) button, then press the [+1/YES] button to select the realtime overdub record mode (if it isn’t already selected). An inverse “R” will appear in the selected record mode button.

6 Set the Phrase Type and Voice

Note that a default “TYPE” and voice are shown for the selected track. These can be changed as required before recording the phrase. The default types and voices for each pattern track are shown below. The “TYPE” parameter is actually the “Note Transition Table Type” and it determines how the corresponding track will be re-harmonized when used in an accompaniment with chord changes. The various phrase types are described below.



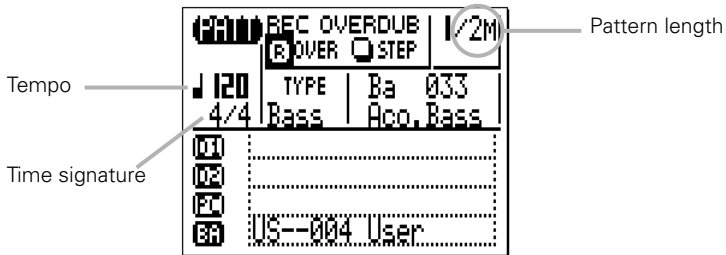
Track	Default Type	Default Voice
D1 (Drum 1)	Bypass	Dr 001: Standard Kit
D2 (Drum 2)	Bypass	Dr 001: Standard Kit
PC (Percussion)	Bypass	Dr 001: Standard Kit
BA (Bass)	Bass	Ba 033: Acoustic Bass
C1 (Chord 1)	Chord 1	Pf 001: Grand Piano
C2 (Chord 2)	Chord 1	Pf 001: Grand Piano
C3 (Chord 3)	Chord 1	Pf 001: Grand Piano
C4 (Chord 4)	Chord 1	Pf 001: Grand Piano.

The Phrase Types

Bypass	The phrase is not re-harmonized — i.e. it is not affected by chord changes — when this type is selected. This type should be used for drum and percussion phrases, otherwise the drum instruments will be “re-harmonized” and change whenever a chord change is encountered.
Bass	When the “Bass” type is selected the phrase is re-harmonized in the same way as for the Chord 1 phrase type, below, except that the root is always used as the first note immediately following a chord change. In the case of an “on-bass” chord, the bass phrase always plays the “on-bass” note.
Chord 1	The source note data is reharmonized based on the root of the specified chord.
Chord 2	The source note data is re-harmonized with the closest possible “voice leading” from the preceding chord. This results in the smoothest possible chord changes.
Parallel	When this type is selected the source note data is simply transposed to the root of the new chord without re-harmonization.

7 Set the Pattern Length, Time Signature & Tempo as Required

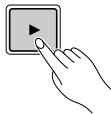
If you're creating a phrase for an empty pattern, move the cursor to the pattern length parameter and set the desired pattern length from 1 to 8 measures. If necessary, also move the cursor to the time signature parameter and set as required (1/16 ... 16/16, 1/8 ... 16/8, 1/4 ... 8/4). The default tempo is 120, but you can move the cursor to the tempo parameter and set any other tempo that is suitable for your recording.



8 Record

Press the [▶] button to begin recording. The metronome will sound and you'll be given a one-measure count-in prior to the first measure actually recorded.

Play the required part either on the micro-keyboard or via an external MIDI keyboard. The phrase will continuously repeat from the first to last measure, so you can continue to add notes until the current part is complete.

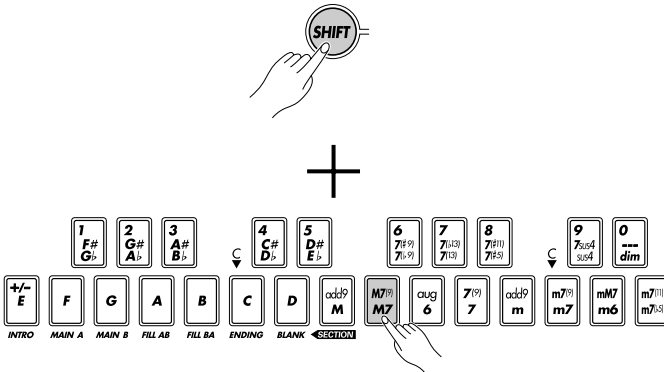


NOTE

- Since your original phrase will be automatically re-harmonized as required by the QY100 ABC system, there are a few rules you should follow to ensure the best results:
 - Stick to the harmonic environment of your source chord.
 - Use primarily the root, 3rd, 5th, and major 7th.
 - Keep it rhythmic ... avoid melodic lines.

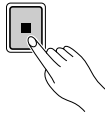
9 Delete Mistakes as Required

To delete mistakes, simply play the note to be deleted on either the micro-keyboard or an external MIDI keyboard while holding the [SHIFT] button. All corresponding notes that occur while the button is held will be deleted.



10 Stop Recording

Press the [■] button to stop recording. The normal PATTERN play mode is automatically re-selected when you stop recording.



11 Repeat for as Many Tracks and Sections as Necessary

Repeat the appropriate steps of the above procedure to record phrases for as many tracks and sections as required.

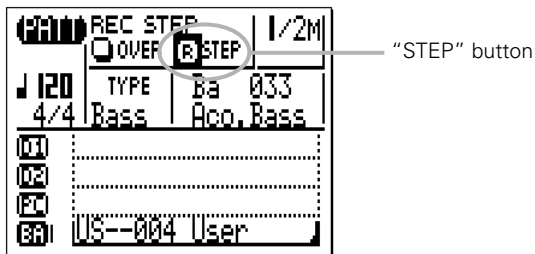
NOTE

- See "The Pattern Jobs" on page 181 for details on the QY100's pattern jobs which allow considerable versatility in creating and modifying patterns.

Step Phrase Recording

The step phrase record mode lets you enter phrases note-by-note, with precise control over the timing, length, and loudness of each note. You can record complete phrases using the step mode, or use it to brush-up and add data to an existing phrase.

Steps **1** through **7** are the same as for phrase realtime recording, above, except for step **5** in which you'll need to select the "STEP" record mode rather than "OVER" (page 107). The actual recording process is then the same as step-recording the SONG tracks except that the measure/beat/clock display shows the total number of measures in the pattern as well as the current measure number. Refer to pages 91 through 97 for details on step recording.



■ NOTE

- The recorded user phrase can be cleared by pressing the function button next to "cler", as shown on page 103. In this case, you can recall the cleared phrase by selecting a user phrase for that track again with [+1]/[-1] button. To delete the recorded phrase completely, execute the "Clear Track" job on page 212.

Pattern Voice mode

Each pattern phrase has its own voice whether it is a preset phrase or a user phrase. (The user phrase voice is specified in the phrase record ready mode described on page 106).

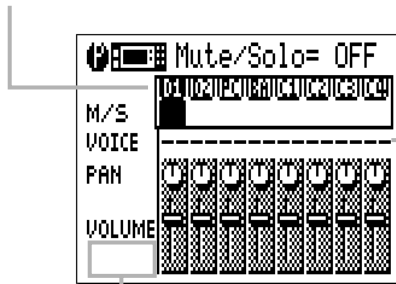
However, you can also assign any of the QY100's 525 voices and 22 drum kits to the 8 pattern phrase tracks (D1, D2, PC, BA, C1...C4) via the PATTERN VOICE mode.

The VOICE mode features a graphic on-screen "mixer" that has mute/solo controls, pan pots, and faders for each track. The PATTERN voice mode also provides access to effect send controls and a versatile range of voice editing parameters.

Press the [PATTERN] button to select the voice mode mixer display. The mixer display shows 8 pattern phrase tracks at a time.

The VOICE mode mixer display looks almost the same as that of the SONG VOICE mode except:

The track numbers are D1, D2, PC, BA and C1...C4.



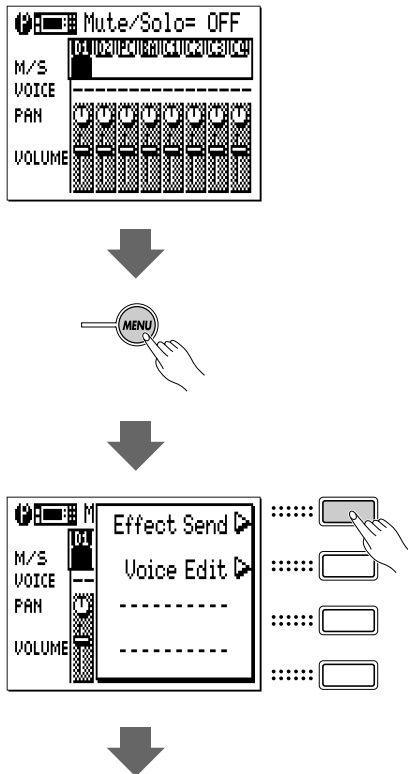
Voice parameter for each track shows "--" as the default setting, which means that the phrase has its own voice assigned to each track.

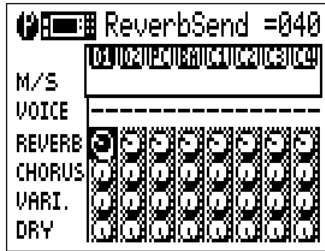
Master volume and Pattern volume faders are omitted.

For details on each parameter of the VOICE mixer display, see "The Song Voice Mode" on page 131. Remember that each track's voice assign, pan and volume settings for a preset pattern in the VOICE mode will not be stored in memory.

The Effect Send Display

The QY100 features a high-performance internal digital signal processing system which provides a range of effects including reverb, delay, modulation, distortion, and more. Three independent effect blocks are provided — Reverb, Chorus, and Variation. The individual effects are selected and modified via the EFFECT mode, described in detail on page 236. The VOICE mode mixer display provides access to independent effect send controls for each of the three effect blocks via the MENU sub-display. Press the [MENU] button, and then the function button next to “Effect Send” on the display.





The Effect Send display looks almost the same as that of the SONG VOICE mode's Effect Send display except for track numbers and the assigned voice (" - " means the phrase has its own voice).

For details on each parameter of the Effect Send display, see "The Effect Send Display" of the Song Voice mode on page 136.

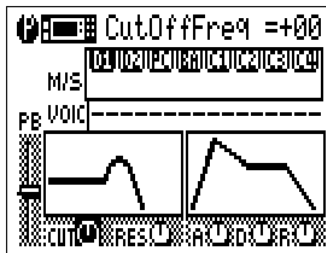
Voice Editing

The QY100's VOICE EDIT mode allows you to modify the sound of the voices assigned to each track to best suit your particular musical requirements. The VOICE EDIT mode can be accessed from the PATTERN VOICE mode by pressing the [MENU] button, and then the function button next to "Voice Edit" on the display. If a Drum Set is selected (i.e., if a drum track, to which "Ds3" drum set voice is assigned, is selected) the "Drum Voice Edit" mode will also be available via the menu.

■ NOTE

- "Ds1" and "Ds2" drum sets can be selected in the SONG VOICE mode only. In the PATTERN VOICE mode, "Ds3" drum set can be selected to edit drum instruments.

The VOICE EDIT display looks almost the same as that of the SONG VOICE mode's VOICE EDIT display except for track numbers and the assigned voice ("--" means the phrase voice has its own voice).



For details on each parameter of the VOICE EDIT display, see "Voice Editing" of the Song Voice mode on page 138.

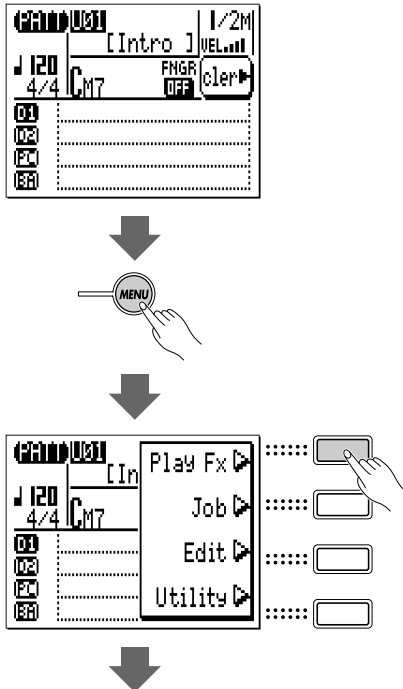
Play Effects

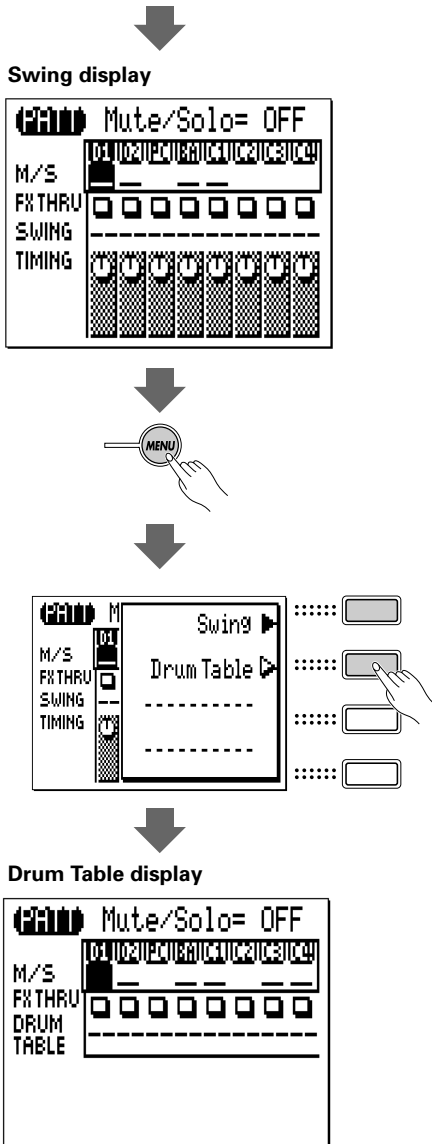
The QY100's "Play Effects" can also affect pattern playback in real time as well as song playback, and are not actually recorded with the phrase data. The Play Effects include Swing and Drum Table Remapping.

To access the Play Effects press the [MENU] button while in the PATTERN play mode and press the function button next to "Play Fx" on the display. The "Swing" and "Drum Table" displays can then be selected by pressing the [MENU] button and then the function button next to "Swing" or "Drum Table" on the display, as required.

■ NOTE

- The Play Effects settings can be stored for each user style. These settings will also be effective when the user style is assigned and played in the SONG mode's pattern (Pt) track.

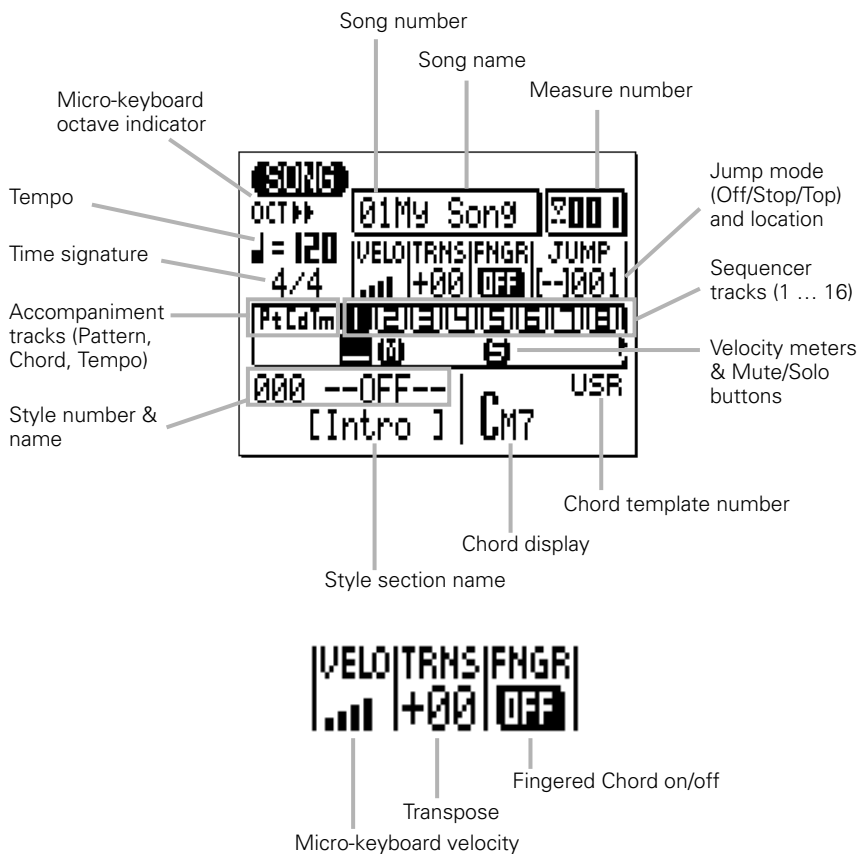




“Swing” and “Drum Table” displays are exactly the same as those in the SONG mode except track numbers (D1, D2, PC, BA, C1...C4). See “Play Effects” of the SONG mode on page 124 for details.

Playback Control

The normal SONG mode display includes all the parameters and controls you need for song playback. Press the [SONG] button to go to the SONG play mode (depending on the current mode, you may need to press the [SONG] button more than once).



● Selecting a Song

The QY100 can retain up to 20 different songs in memory at the same time: song numbers 01 through 20 (three demo songs are recorded as song numbers 21 through 23). To select a song for playback use the cursor buttons to move the cursor to the song number location (the song number will be highlighted), and then use the [-1] and [+1] buttons or the SHIFT-Number entry method described below to select the desired song number. If the song has been given a name (this is done via the Song Name job described on page 180), the song name will appear to the right of the song number.

The SHIFT-Number Entry Method

Numeric values can be directly entered by using the black micro-keyboard keys (numbered 1 through 0) while holding the [SHIFT] button. To enter the number "16", for example, press the "1" and then the "6" keys ("F#/G♭" and "7(#9)/7(♭9)" on the micro-keyboard) while holding the [SHIFT] button. The entered number — "16" — will flash on the display. Press the [ENTER] button to actually enter the number.

Negative values can be entered where applicable by first pressing the "E" (" - ") key on the micro-keyboard while holding the [SHIFT] button, and then entering the value as described above.

● Playing the Selected Song

Playback of the selected song is started by pressing the [▶] ("PLAY") sequencer button. The green LED will flash at the playback tempo. The song will play through to the end and then stop automatically. Song playback can also be stopped at any time by pressing the [■] sequencer button.

■ NOTE

- *When a song is selected, its voice and effect settings will be recalled. Therefore, you should wait for about 1 second until pressing the [▶] button after selecting a song.*

● Repeat Playback

Press the [▶] button while holding the [SHIFT] button to start repeat playback of the selected song. The repeat playback symbol (◀▶) will appear in the upper right corner of the display during repeat playback. In this mode the selected song will repeat indefinitely until stopped by pressing the [■] button.

● Measure Number

The measure number parameter on the display shows the current measure number during song playback (and recording). You can also place the cursor here and use the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34) to enter any measure number from which you want to start playback or recording. The sequencer [◀◀] and [▶▶] buttons can be used to step or scroll forward or backward through the song's measures no matter where the cursor is located.

● Jump Functions

For convenient navigation the QY100 has two "jump" modes that let you jump to a specified measure number.

Jump Mode	Symbol	Function
Stop Jump	[■]	When this mode is selected the QY100 will automatically jump to the specified measure number whenever the sequencer [■] (Stop) button is pressed.
Top Jump	[H]	In this mode the QY100 will automatically jump to the specified measure number when the sequencer [H] (Top) button is pressed and the current measure number is greater than the specified jump location. If the current measure number is lower than the specified jump location the QY100 will jump to the top of the song (measure 001).
Jump Off	[- -]	The jump function is OFF.

The jump modes can be selected by moving the cursor to the jump mode symbol and selecting via the [-1] and [+1] buttons, or by using the following button combinations:

Mode	Button Combination
Stop Jump	[SHIFT] + [■]
Top Jump	[SHIFT] + [◀]
Jump Off	[SHIFT] + [◀◀] or [▶▶]

To specify the measure number you want to jump to move the cursor to the jump location parameter and use the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34) to set as required.

● Playback Tempo

The playback tempo can set from 25 to 300 quarter-note beats per minute by moving the cursor to the tempo parameter and using the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34) to set as required.

● Track Selection

Although track selection is more of a recording than a playback function, it is necessary to select tracks in the playback mode for muting and solo monitoring control (below). The SONG display shows the pattern ("Pt"), chord ("Cd"), and tempo ("Tm") accompaniment tracks as well as 8 of the 16 available sequencer tracks at a time. Move the cursor to the track area and scroll left or right to the remaining tracks (an arrow appears at either the left or right of the track numbers to indicate that more tracks can be accessed by scrolling in the corresponding direction). The number of the selected track remains highlighted when the cursor is moved to other areas of the display.



● The Velocity Meters

The area below each sequencer track number is a 5-segment “velocity” meter that shows approximate MIDI velocity in the corresponding track during playback. When playback is stopped, the lowest segment of the velocity meter appears only below tracks which contain data.

● Mute/Solo

The velocity meter area below each track number in the SONG mode also functions as a mute/solo button which can be used to mute (turn off) or solo (only that track will be monitored) the corresponding track. Move the cursor to the track, then use the [-1] button to alternately mute or un-mute that track, or use the [+1] button to alternately solo or un-solo the track. Any number of tracks can be muted and/or soloed at a time. To solo more than one track at a time hold the [SHIFT] button while soloing additional tracks after the first solo track has been specified. Also hold the [SHIFT] button while un-soloing a single track when multiple tracks are soloed (un-soloing a single track without holding the [SHIFT] button will un-solo all soloed tracks).

The letter “M” appears below the number of tracks that are muted, and the letter “S” appears when a track is soloed.

■ NOTE

- *The mute function is a handy way to simply turn tracks that you don’t want to hear off. When recording, they also make it easy to mute a “busy” track or several tracks that might make it difficult to hear an important track.*
- *Solo monitoring is a great way to isolate a track or two when you want to concentrate on the sound while, for example, making delicate adjustments to effects or other parameters that might get “swamped” by the sound from other tracks. It’s also handy for listening for small mistakes that you might otherwise overlook.*

● **Velocity**

This parameter sets the “velocity” (i.e. loudness) of the micro-keyboard. The velocity can be set in ten levels — the more bars the higher the velocity. There are also four “random velocity” settings which produce different degrees of random velocity variation. “R1” produces the smallest variation and “R4” produces the greatest variation.

● **Transposition**

The transpose (“TRNS”) parameter can be used to transpose the pitch of song playback up or down by a maximum of 2 octaves in semitone increments. A transpose setting of “+00” produces normal pitch. To transpose song playback move the cursor to the “TRNS” parameter and use the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34) to set as required. Minus settings transpose down, and plus settings transpose up by the specified amount. Each increment corresponds to one semitone. The maximum range is from “-24” through “+00” to “+24”.

● **Fingered Chord**

This parameter can either be turned “OFF” or “ON”. When “ON” chords played in the specified “fingered zone” of the micro-keyboard or an external MIDI keyboard are recognized by the QY100 and the chord accompaniment track is reharmonized accordingly. See page 252 for details.



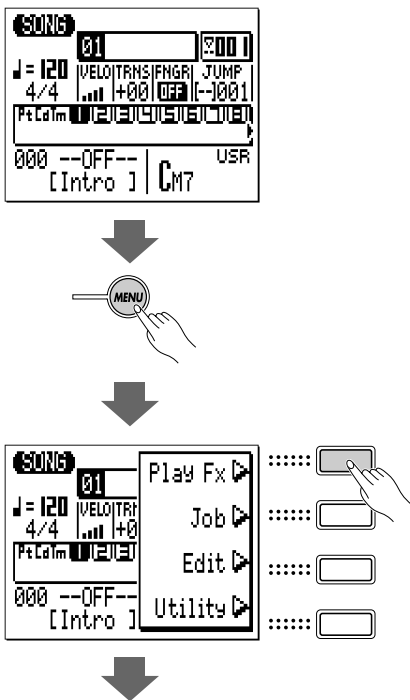
Play Effects

The QY100 “Play Effects” affect sequence playback in real time, and are not actually recorded with the sequence data. The Play Effects include Swing and Drum Table Remapping.

To access the Play Effects press the [MENU] button while in the SONG mode and press the function button next to “Play Fx” on the display. The “Swing” and “Drum Table” displays can then be selected by pressing the [MENU] button and then the function button next to “Swing” or “Drum Table” on the display, as required.

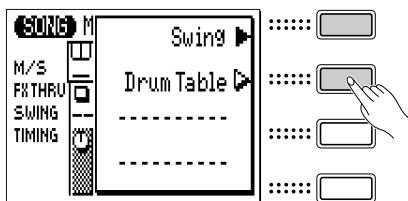
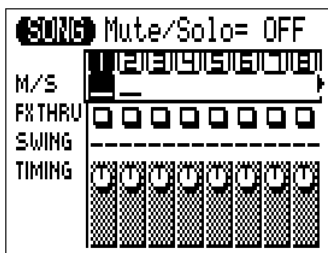
■ NOTE

- The Play Effects settings can be stored for each song.
- See the “Normalize” job on page 177 to apply the Play Effects to the actual sequence data.

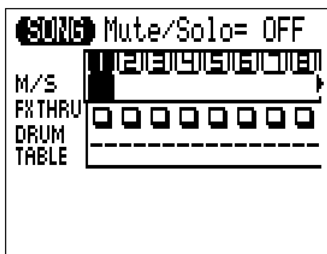




Swing display



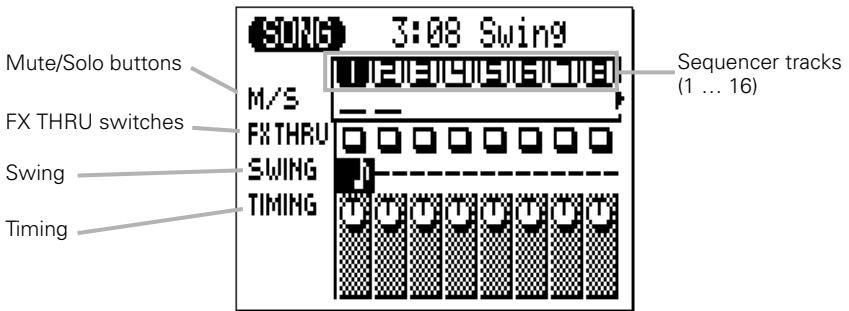
Drum Table display



Swing

By shifting the timing of certain notes according to a pre-defined pattern, this function makes it easy to add a “swing” feel to data which has already been recorded.

If the Swing display shown below does not appear when “Play Fx” is selected, press the [MENU] button again and press the function button next to “Swing” on the display.



The Swing display shows 8 of the 16 available tracks at a time. Use the cursor buttons to scroll left or right to the remaining tracks (an arrow appears at either the left or right of the track numbers to indicate that more tracks can be accessed by scrolling in the corresponding direction).

● M/S (Mute/Solo)

The Mute/Solo (“M/S”) parameters below each track number in the Swing display can be used to mute (turn off) or solo (only that track will be monitored) the corresponding track. Move the cursor to the appropriate M/S parameter, then use the [-1] button to alternately mute or un-mute that track, or use the [+1] button to alternately solo or un-solo the track. Any number of tracks can be muted and/or soloed at a time. To solo more than one track at a time hold the [SHIFT] button while soloing additional tracks after the first solo track has been specified. Also hold the [SHIFT] button while un-soloing a single track when multiple tracks are soloed (un-soloing a single track without holding the [SHIFT] button will un-solo all soloed tracks).

The letter “M” appears below the number of tracks that are muted, and the letter “S” appears when a track is soloed.





■ NOTE

- *The M/S parameters duplicate those in the SONG play mode and SONG VOICE displays, and have exactly the same effect.*

● FX THRU

These “switches” enable or bypass the effect for the corresponding tracks. When an FX THRU switch appears as an empty square, the effect is enabled for that track. To bypass the effect for a track, move the cursor to the appropriate FX THRU switch, and press the [+1] button so that a “T” (THRU) in the square. Bypassed tracks can be enabled by pressing the [-1] button.

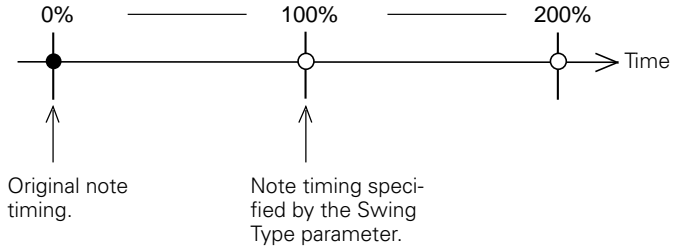
● SWING

Use the Swing Type parameter to select the swing type for currently selected track. No swing is applied when off (“—”) is selected. The available swing types are: — (OFF),  (32 swing),  (16 swing),  (08 swing), and  (04 swing).



● **TIMING**

Determines the degree to which the original notes are shifted toward the timing specified by the Swing Type parameter. The range is from 0% to 200%. At 100% the notes are shifted to the note timing specified by the Swing Type parameter (see illustration, below), while at 200% the amount of shift is doubled.



Drum Table Remapping

If the Drum Table display shown below does not appear when “Play Fx” is selected, press the [MENU] button again and press the function button next to “Drum Table” on the display.

Drum Table remapping allows the drum instruments to be “remapped” so that, for example, you can replace a medium snare drum with a high snare or rimshot without affecting the data in the drum track.



● M/S (Mute/Solo)

The Mute/Solo (“M/S”) parameters below each track number in the Drum Table display can be used to mute (turn off) or solo (only that track will be monitored) the corresponding track. Move the cursor to the appropriate M/S parameter, then use the [-1] button to alternately mute or un-mute that track, or use the [+1] button to alternately solo or un-solo the track. Any number of tracks can be muted and/or soloed at a time. To solo more than one track at a time hold the [SHIFT] button while soloing additional tracks after the first solo track has been specified. Also hold the [SHIFT] button while un-soloing a single track when multiple tracks are soloed (un-soloing a single track without holding the [SHIFT] button will un-solo all soloed tracks).

The letter “M” appears below the number of tracks that are muted, and the letter “S” appears when a track is soloed.

■ NOTE

- *The M/S parameters duplicate those in the SONG play mode and SONG VOICE displays, and have exactly the same effect.*

● FX THRU

These “switches” enable or bypass the effect for the corresponding tracks. When an FX THRU switch appears as an empty square, the effect is enabled for that track. To bypass the effect for a track, move the cursor to the appropriate FX THRU switch, and press the [+1] button so that a “T” (THRU) in the square. Bypassed tracks can be enabled by pressing the [-1] button.



● DRUM TABLE

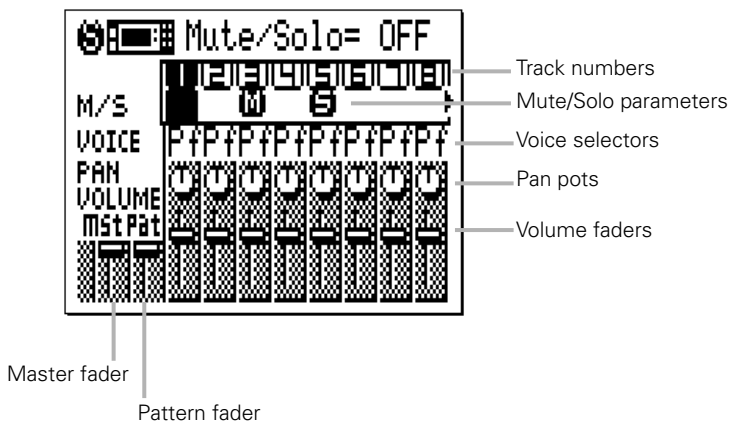
This parameter specifies the drum instrument to be remapped for the selected track. 24 choices are available (in addition to “-” or “OFF”), spanning 6 remapping categories, as shown in the chart below. A selected instrument will replace any other instrument in the same category. For example, if a drum track uses the Snare M instrument and you select DRUM TABLE number 7 for that track, every occurrence of the Snare M instrument will be replaced by the Open Rimshot instrument.

No.	Category	Instrument
1	Bass Drum	Bass Drum L
2		Bass Drum M
3		Bass Drum H
4	Snare	Snare L
5		Snare M
6		Snare H
7		Open Rimshot
8		Brush Slap
9		Side Stick
10		Hand Clap
11	Mid Tom	
12	Hi Hat	Ride Cymbal
13		Cabasa
14		Maracas
15		Triangle
16		Shaker
17	Tambourine	
18	Bongo-Conga	Bongo-Conga
19	Solo	Solo BassDr
20		Solo SnareDr
21		Solo Hi-Hat
22	Mute	Mute BassDr
23		Mute SnareDr
24		Mute Hi-Hat

The Song Voice Mode

The QY100 has 525 voices and 22 drum kits that can be selected, played, and assigned to the 16 SONG mode sequencer tracks via the SONG VOICE mode. The VOICE mode features a graphic on-screen “mixer” that has mute/solo controls, pan pots, and faders for each track. The SONG voice mode also provides access to effect send controls and a versatile range of voice editing parameters (page 138).

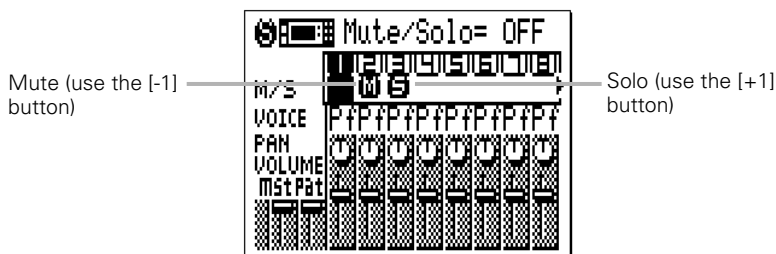
Press the [SONG] button to select the voice mode mixer display. The mixer display shows 8 of the 16 available tracks at a time. Use the cursor buttons to scroll left or right to the remaining tracks (an arrow appears at either the left or right of the track numbers to indicate that more tracks can be accessed by scrolling in the corresponding direction).



● Mute/Solo

The Mute/Solo (“M/S”) parameters below each track number in the VOICE mode mixer display can be used to mute (turn off) or solo (only that track will be monitored) the corresponding track. Move the cursor to the appropriate M/S parameter, then use the [-1] button to alternately mute or un-mute that track, or use the [+1] button to alternately solo or un-solo the track. Any number of tracks can be muted and/or soloed at a time. To solo more than one track at a time hold the [SHIFT] button while soloing additional tracks after the first solo track has been specified. Also hold the [SHIFT] button while un-soloing a single track when multiple tracks are soloed (un-soloing a single track without holding the [SHIFT] button will un-solo all soloed tracks).

The letter “M” appears below the number of tracks that are muted, and the letter “S” appears when a track is soloed.



■ NOTE

- The mute function is a handy way to simply turn tracks that you don't want to hear off. When recording, they also make it easy to mute a “busy” track or several tracks that might make it difficult to hear an important track.
- Solo monitoring is a great way to isolate a track or two when you want to concentrate on the sound while, for example, making delicate adjustments to effects or other parameters that might get “swamped” by the sound from other tracks. It's also handy for listening for small mistakes that you might otherwise overlook.
- These same parameters also appear in the main SONG display. A track that is muted or soloed in the main SONG display will also appear muted or soloed in the voice mode mixer display, and vice-versa.

● The Voices

Due to the large number of voices provided in the QY100, they are organized into 21 categories, as follows:

Prefix	Category
Pf	Piano
Cp	Chromatic Percussion
Or	Organ
Gt	Guitar
Ba	Bass
St	Strings
En	Ensemble
Br	Brass
Rd	Reed
Pi	Pipe
Ld	Lead Synth
Pd	Pad
Fx	Synth Effects
Et	Ethnic instruments
Pc	Percussive
Se	Sound effects
Sfx	More sound effects
Sfk	Sound effect kits (i.e. a different effect on each key).
Dr	Drum kits
Ds1	Drum set 1 (Drum kit including "editable" drum instruments)
Ds2	Drum set 2 (Drum kit including "editable" drum instruments)

See the Data List for a complete list of the voices with their corresponding category, program number, and bank number.

To select a voice for a specific track, move the cursor to the appropriate VOICE parameter and select using the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34). You can also skip to the first voice in each category by using the [-1/NO] and [+1/YES] buttons while holding the [SHIFT] button.

Note that the currently selected voice category, number, and name appear at the top of the display. Also note that some of the voices have variations, indicated by a plus sign ("+") between the program number and voice name. Play the micro keyboard and you'll hear that voice.



■ **NOTE**

- *In any QY100 mode, the micro keyboard or an external MIDI keyboard plays the voice assigned to the currently selected track. A MIDI keyboard will also play the voice assigned to a track with the same number as the external keyboard's MIDI transmit channel unless the "ECHO BACK" parameter (page 248) is set to "Rec Monitor".*
- *If you're playing the micro keyboard, use the octave keys to access the full range of instruments in each drum or effects kit.*
- *See the Data List for a complete list of note assignments (i.e. which drum instruments and SFX sounds are assigned to which notes) for all drum and SFX kits.*

● **The Pan Pots**

Like the pan pots on a mixing console, the VOICE mode pan pots can be used to position the sound of the corresponding track anywhere from left to right in the stereo sound field. Position the cursor at the pan pot, then use the [-1/NO] and [+1/YES] buttons to set the pan position. The graphic pan pot will rotate to the corresponding position. The pan positions also have numeric values (1 through 63) that appear at the top of the display: "Center" is center, "Left 63" is full left, and "Right 63" is full right. There's also a "Random" setting in which the pan position is set randomly.

● **The Volume Faders**

Each track has a graphic volume "fader" that can be set to produce the best "mix" (balance) between the various voices. Position the cursor at a fader, then use the [-1/NO] and [+1/YES] buttons or the SHIFT-Number entry method (page 34) to set the fader level. The graphic fader will move to the corresponding position (higher for higher volume, and lower for lower volume). The fader positions also have numeric values (000 through 127) that appear in the upper right corner of the display: "000" is minimum volume (no sound) and "127" is maximum volume. The default setting is "100" for all tracks. The leftmost "mst" fader is a "master" fader which can be used to adjust the overall volume level, while the "pat" fader independently controls the level of the pattern track.

■ **NOTE**

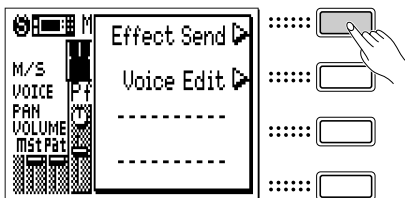
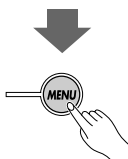
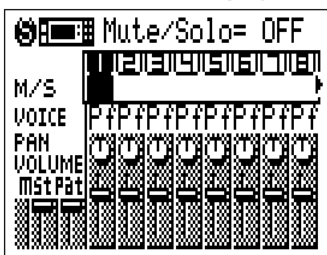
- *You can switch back and forth between the SONG and VOICE modes even while a song is playing, so you can adjust all VOICE mode parameters (change voices, mute tracks, pan, and change volume settings) while listening to the results in real time!*

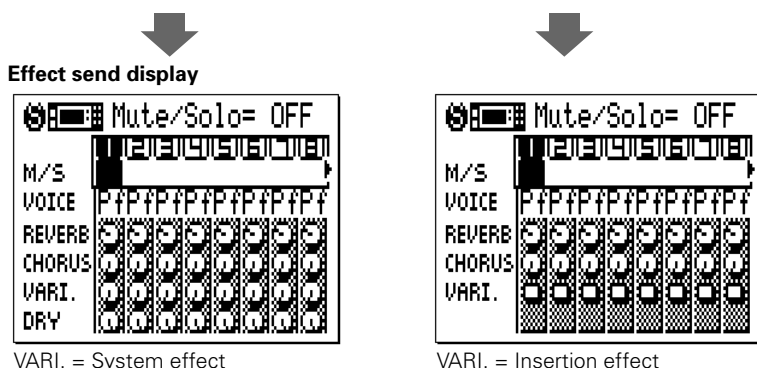


The Effect Send Display

The QY100 features a high-performance internal digital signal processing system which provides a range of effects including reverb, delay, modulation, distortion, and more. Three independent effect blocks are provided — Reverb, Chorus, and Variation. The individual effects are selected and modified via the EFFECT mode, described in detail on page 236. The VOICE mode mixer display provides access to independent effect send controls for each of the three effect blocks via the MENU sub-display: press the [MENU] button, and then the function button next to “Effect Send” on the display.

VOICE mode mixer display





The VARI. (variation effect) control appears either as a standard rotary control or a switch, depending on how the variation effect block is “connected” to the system in the EFFECT mode (“System” or “Insertion” — see page 239).

The effect controls — “REVERB”, “CHORUS”, and “VARI.” — set the level of the corresponding effect for the corresponding parts. Position the cursor at a control, then use [-1/NO] and [+1/YES] buttons or the SHIFT-Number entry method (page 34) to set the corresponding effect level. The graphic control will rotate to the corresponding position (clockwise for higher level, and counter-clockwise for lower level). The control positions also have numeric values (000 through 127) that appear at the top of the display: “000” is no effect and “127” is maximum effect level. When the VARIATION control appears as a switch, it simply turns the current variation effect on or off (“E” appears in the switch when the variation effect is on).

The Mute/Solo and Voice selectors in the Effect Send display duplicate those in the VOICE mode mixer display, and have exactly the same functions.

You can return to the SONG VOICE mixer display by pressing the [EXIT] button.

NOTE

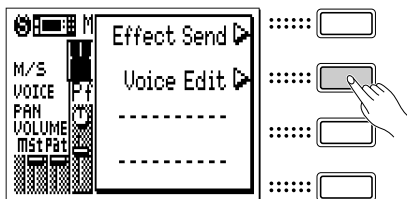
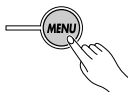
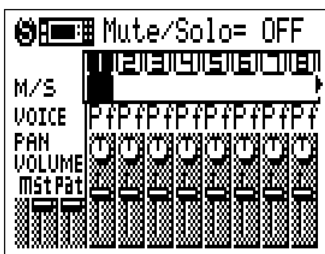
- The effect settings apply only to the QY100’s internal voices — i.e. they will not affect the sound of an external tone generator or synthesizer being driven by the QY100.
- When the “VARI.” control appears as a standard rotary control (i.e., the variation effect block is connected as a “System” effect), the “DRY” rotary control also appears to control “Dry/Wet” mixing of effects for each track. When the “VARI.” control appears as a switch (i.e., the variation effect block is connected as an “Insertion” effect), the “DRY” rotary control disappears. In this case, “Dry/Wet” mixing can be controlled in the “Vari.Edit” of the Effect Editing display. (page 240)

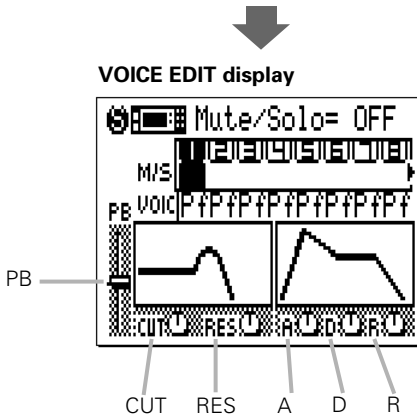


Voice Editing

The QY100 VOICE EDIT mode makes it possible to modify the sound of the voices assigned to each track to best suit your particular musical requirements. The VOICE EDIT mode can be accessed from the SONG VOICE mode by pressing the [MENU] button, and then the function button next to "Voice Edit" on the display. If a Drum Set is selected ("Ds1" or "Ds2") the "Drum Voice Edit" mode will also be available via the menu.

VOICE mode mixer display





To edit a voice parameter, move the cursor to the parameter and edit using either the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34).

NOTE

- The Mute/Solo and Voice selectors in the VOICE EDIT display duplicate those in the VOICE mode mixer display, and have exactly the same functions.
- You can return to the SONG VOICE mixer display by pressing the [EXIT] button.

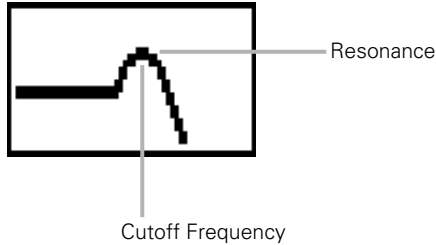
PB (Pitch Bend Range)

This control sets the maximum pitch bend control range. The range is from "-24" through "0" to "+24". Each increment corresponds to one semitone (100 cents), thus the maximum pitch bend control range is plus or minus two octaves. The value set here also applies to the pitch bend range controlled by the [OCT DOWN] button while playing on the micro keyboard.



● Filter Controls

The filter controls affect the basic “timbre” of the sound.



CUT (Cutoff Frequency)

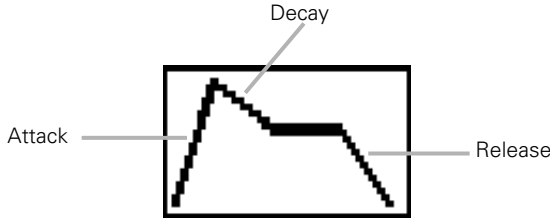
Sets the cutoff frequency of the low-pass filter from “-64” through “0” to “+63”. Negative values lower the cutoff frequency, producing a “darker” sound. Positive values raise the cutoff frequency, producing a brighter sound. The graphic filter response curve will shift to indicate the current setting (the heavy default setting curve will also remain on the display).

RES (Resonance)

Adjusts the height of the filter’s resonance peak from “-64” through “0” to “+63”. Negative values lower the resonant peak producing a “flatter” sound. Positive values increase the resonant peak, emphasizing components at the filter cutoff frequency. The peak on the graphic filter response curve will grow or shrink to indicate the current setting (the heavy default setting curve will also remain on the display).

● EG (Envelope Generator) Controls

The envelope generator controls affect the level “envelope” of the sound — i.e. its attack, decay, and release times. Plotted against time, the level envelope looks something like this.



A (Attack Time)

Adjusts the attack portion of the envelope generator curve from “-64” through “0” to “+63”. Negative values produce a faster attack while positive values produce a slower attack. The graphic envelope generator curve will shift to indicate the current setting (the heavy default setting curve will also remain on the display).

D (Decay Time)

Adjusts the decay portion of the envelope generator curve from “-64” through “0” to “+63”. Negative values produce a faster decay while positive values produce a slower decay. The graphic envelope generator curve will shift to indicate the current setting (the heavy default setting curve will also remain on the display).

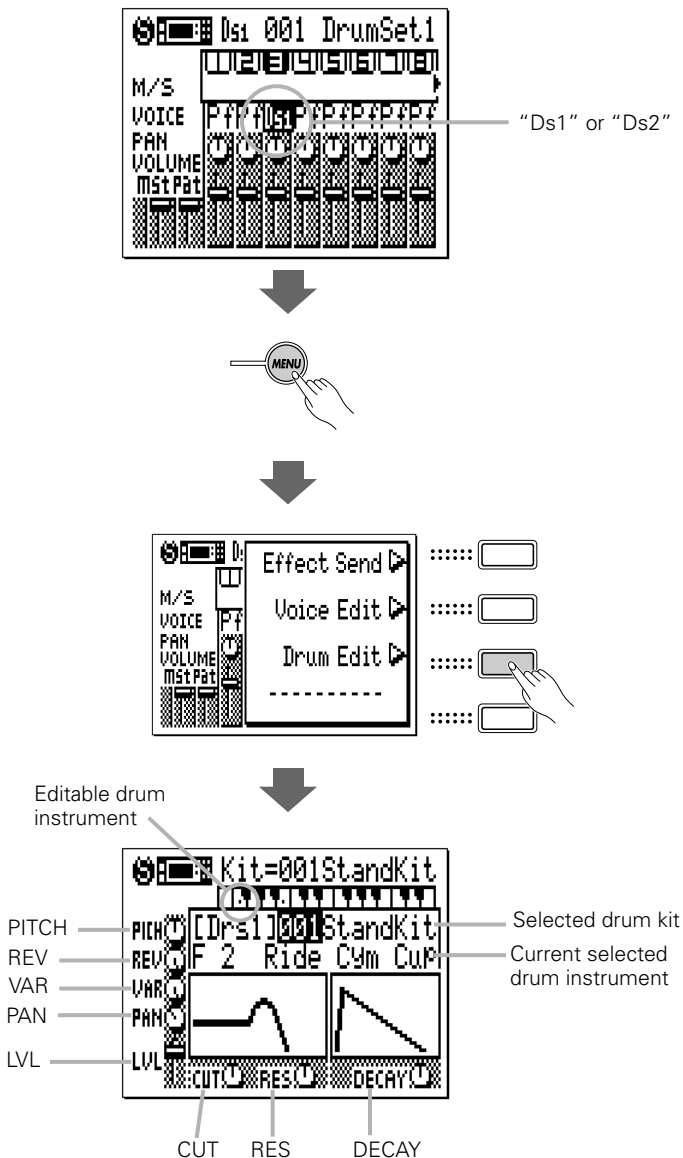
R (Release Time)

Adjusts the release portion of the envelope generator curve from “-64” through “0” to “+63”. Negative values produce a faster release while positive values produce a slower release. The graphic envelope generator curve will shift to indicate the current setting (the heavy default setting curve will also remain on the display).



Drum Edit

When a Drum Set is selected (“Ds1” or “Ds2”) the “Drum Voice Edit” mode can be selected via the SONG VOICE menu.



Select the specific drum set to be edited by placing the cursor on the drum set number and selecting via the [-1] and [+1] buttons or by using the SHIFT-Number entry method. Only certain drum instruments can be edited, and these are indicated by dots on the appropriate keys in the graphic keyboard display at the top of the display panel. Use the [OCT DOWN] and [OCT UP] buttons to access the full range of drum instruments, and press the corresponding micro-keyboard key to select an instrument for editing. When a drum instrument which cannot be edited is selected, the controls on the display appear “grayed” and cannot be accessed.

PICH (Pitch Coarse)

Adjusts the pitch of the selected drum instrument from “-64” through “0” to “+63”. Negative values lower the pitch of the instrument, while positive values raise the pitch of the instrument.

REV (Reverb Send)

Independently adjusts the reverb send level of the selected drum instrument from “0” (no reverb) to “127” (maximum reverb).

VAR (Variation Send)

Independently adjusts the variation effect send level of the selected drum instrument from “0” (no effect) to “127” (maximum effect) when the variation effect block is connected as a system effect, or turns the variation effect “On (in case set to other than 0)” or “Off (in case set to 0)” when the variation effect block is connected as an insertion effect (see page 239 for details on the effect connections).

PAN (Pan Position)

Sets the pan position of the selected drum instrument. “Center” is center, “Left 63” is full left, and “Right 63” is full right. There’s also a “Random” setting in which the pan position is set randomly.

LVL (Level)

Sets the level (volume) of the selected drum instrument from “0” (no sound) to “127” (maximum volume).



CUT (Cutoff Frequency)

Sets the cutoff frequency of the low-pass filter from “-64” through “0” to “+63”. Negative values lower the cutoff frequency, producing a “darker” sound. Positive values raise the cutoff frequency, producing a brighter sound. The graphic filter response curve will shift to indicate the current setting (the heavy default setting curve will also remain on the display).

RES (Resonance)

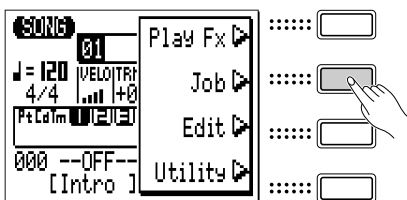
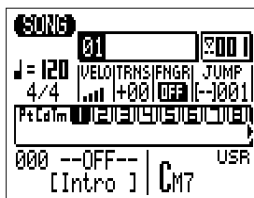
Adjusts the height of the filter’s resonance peak from “-64” through “0” to “+63”. Negative values lower the resonant peak producing a “flatter” sound. Positive values increase the resonant peak, emphasizing components at the filter cutoff frequency. The peak on the graphic filter response curve will grow or shrink to indicate the current setting (the heavy default setting curve will also remain on the display).

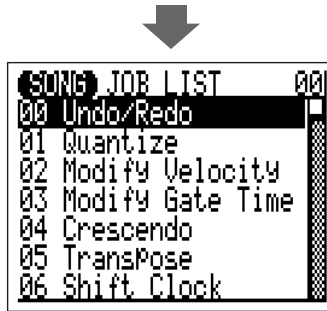
DECAY (Decay Rate)

Adjusts the decay rate from “-64” through “0” to “+63”. Negative values produce a slower decay while positive values produce a faster decay (Unlike the Decay Time in normal Voice Editing (page 141), this parameter sets the rate for how much the level of the instrument decays. Therefore, positive values produce a faster decay.). The graphic envelope generator curve will shift to indicate the current setting (the heavy default setting curve will also remain on the display).

The Song Jobs

The SONG mode includes 25 song “jobs” that perform a variety of important functions. To access and use the song jobs, press the [MENU] button while in the main SONG play mode, then press the “Job” function button. This calls the song job list. You can select any job on the list simply by moving the cursor to the required job and pressing [ENTER]. The function buttons can be used to move the cursor directly to the first job in the corresponding category: Event, Measure, Track, or Song (press the [MENU] button, then the appropriate function button).





00: Undo/Redo	“Measure” category
“Event” category	15: Create Measure
01: Quantize	16: Delete Measure
02: Modify Velocity	“Track” category
03: Modify Gate Time	17: Copy Track
04: Crescendo	18: Mix Track
05: Transpose	19: Clear Track
06: Shift Clock	20: Expand Backing
07: Chord Sort	21: Normalize
08: Chord Separate	“Song” category
09: Copy Event	22: Copy Song
10: Erase Event	23: Clear Song
11: Extract Event	24: Song Name
12: Create Continuous	
13: Thin Out	
14: Time Stretch	

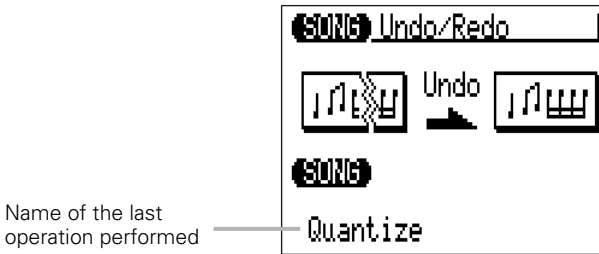
■ Returning to the SONG Mode

The [EXIT] button can be used to exit from any song job, and then from the job list thereby returning you to the normal song play mode. You can also press the [SONG] button to directly return to the SONG mode.



00 : Undo/Redo

This job will “undo” any other song/pattern job, edit, or record function if it is executed before any other operation is performed. In all cases the affected data is restored to the state it was in before performing the job, edit, or record operation. This job will also undo the last undo operation (redo).



The name of the last operation performed will appear on the display (i.e. the operation which will be “undone”). In the example display, above, a quantize operation will be undone.

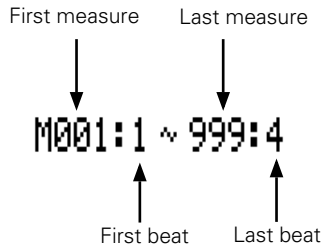
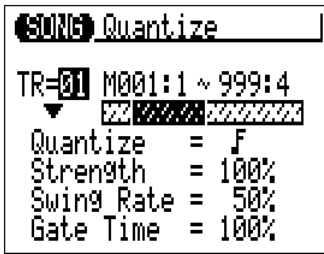
Press [ENTER] to execute the Undo/Redo job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ DETAIL

- The UNDO/REDO job will not undo the Clear Song (“All”), the Clear Pattern (“All” styles), the Song Name or Style Name jobs.

01 : Quantize

Aligns notes in the specified track to or close to the nearest specified beat.





The “**TR**” parameter selects the track to be affected by the Quantize job: “01” ... “16” for individual tracks, or “All” to quantize all 16 tracks simultaneously.


The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be quantized.

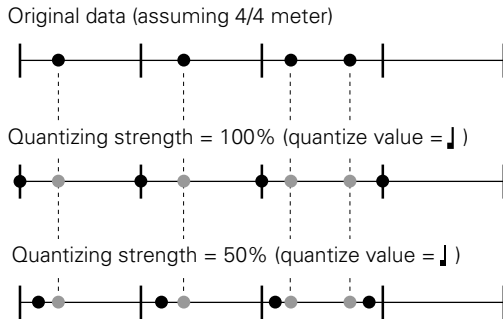
The “**Quantize**” parameter determines to what beats the note data in the specified track will be aligned. If you select “**F**”, for example, all notes in the track will be aligned to the nearest 16th-note beat, to a degree determined by the “Strength” parameter.

Quantize Values

Value	Effect
F	Aligns to the nearest 32nd note.
ƒ	Aligns to the nearest 16th note triplet.
f	Aligns to the nearest 16th note.
ƒ	Aligns to the nearest 8th note triplet.
f	Aligns to the nearest 8th note.
ƒ	Aligns to the nearest quarter note triplet.
f	Aligns to the nearest quarter note.

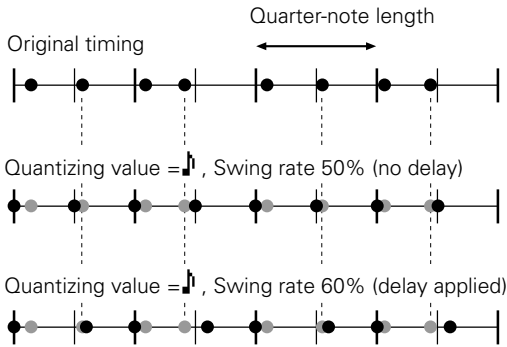
Value	Effect
	Aligns to the nearest 16th note + 16th note triplet.
	Aligns to the nearest 8th note + 8th note triplet.

The “**Strength**” parameter determines how “strongly” the notes are attracted to the specified quantize value. The strength range is from 0% to 100%. At a setting of “0%” no quantization will occur, while a setting of “100%” will cause all notes to be aligned precisely to the nearest specified beat value. In-between settings produce a corresponding shift in the position of all off-beat notes to the nearest specified beat value. With a value setting of “” and a strength setting of 50%, for example, a note that does not fall precisely on a quarter beat will be shifted about halfway to nearest quarter beat.



The “**Swing Rate**” parameter produces a “swing” feel by shifting the timing of “back beats”, as specified by the quantize value. For example, if the specified quantization value is 8th notes, then the swing effect will shift the 2nd, 4th, 6th, and 8th beats of each measure forward to create a swing feel. If the quantize value is set to a triplet note length, the last note in each triplet group will be shifted. If the quantize value is set to a compound note length (e.g. 8th note + 8th note triplet) the even-numbered back beats will be shifted. The “Swing Rate” parameter determines how much the timing of the affected notes will be shifted. The range is from 50% (no swing) to 75% (maximum swing) for even note lengths, from 66% to 83% for triplet note lengths, and from 50% to 66% for even-plus-triplet note lengths (e.g. 8th note + 8th note triplet).



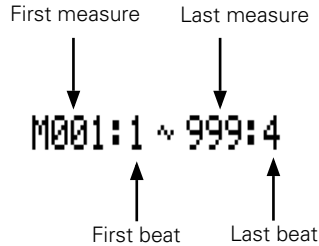
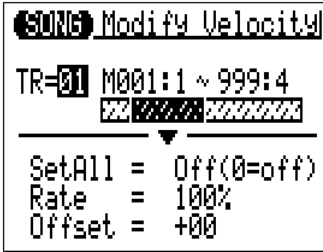


The “**Gate Time**” parameter increases or decreases the gate times (length) of all notes affected by the swing parameter. The range is from 0% to 200%. The “Gate Time” parameter sets the ratio between the shorter and longer gate time values. A setting of “100%” maintains the original relationship between the notes, lower values produce a narrower gate time range, and higher values produce a broader gate time range.

After setting the parameters as required press [ENTER] to execute the Quantize job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

02 : Modify Velocity

Increases or decreases the velocity values of all notes in the specified track and range of measures.



The “**TR**” parameter selects the track to be affected by the Modify Velocity job: “01” ... “16”.

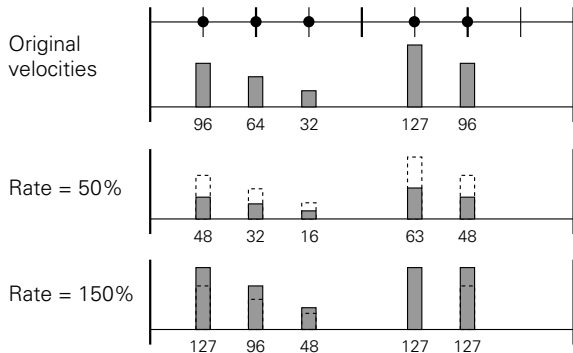
The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**SetAll**” parameter makes it possible to set all notes in the specified range to a single velocity value from “1” to “127”. “Set All” can also be turned “Off” when the “Rate” and “Offset” parameters, below, are to be used for velocity modification.

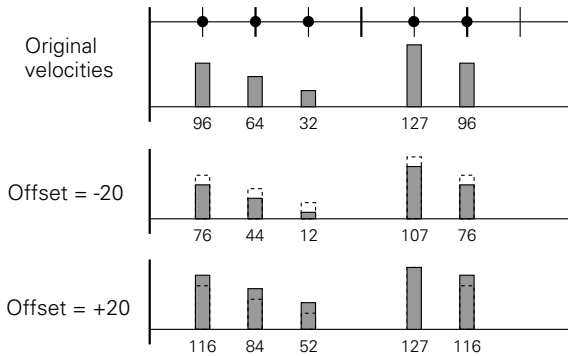
The “**Rate**”

parameter allows you to change the Velocity value of each note without affecting the velocity ratios between notes (proportional change). A setting of “100%” maintains the absolute velocity differences between notes, while lower (higher) values will

decrease (increase) the velocity values to the corresponding percentage, resulting in a narrower (wider) dynamic range. The range is from “0%” to “200%”.



The “**Offset**” parameter allows you to change all velocity values by an absolute amount. “-” settings will decrease the velocity of each note by the corresponding amount, “+” settings will increase the velocity accordingly. The range is from “-99” through “0” to “+99”.



New Velocity = Original Velocity x rate/100 + offset

(If the right side of the equation is 0 or less, the New Velocity becomes 1. If the right side of the equation is 128 or more, the New Velocity becomes 127.)

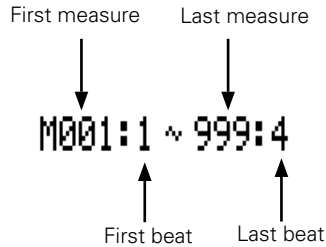
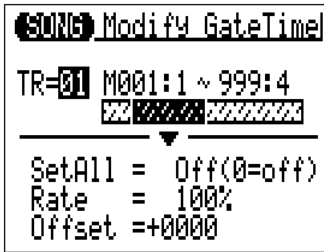
After setting the parameters as required press [ENTER] to execute the Modify Velocity job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

NOTE

- The Modify Velocity job is a great way to “soften” the sound of material that has too great variation between the softest and loudest notes, or, conversely, to add extra punch to dull-sounding material. Experiment with the parameters to get a feel for what they do.

03 : Modify Gate Time

Increases or decreases the gate times (length) of all notes in the specified track and range of measures.

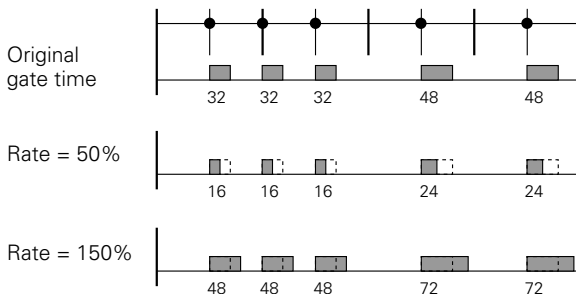


The “**TR**” parameter selects the track to be affected by the Modify Gate Time job: “01” ... “16”.

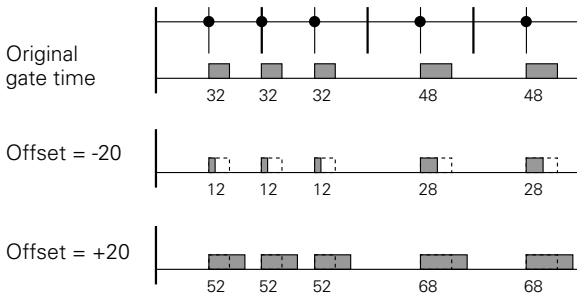
The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**SetAll**” parameter makes it possible to set all notes in the specified range to a single gate time value from “1” to “9999”. “Set All” can also be turned “Off” when the “Rate” and “Offset” parameters, below, are to be used for gate time modification.

The “**Rate**” parameter allows you to change the Gate Time value of each note without affecting the gate time ratios between notes (proportional change). A setting of “100%” maintains the absolute gate time differences between notes, while lower (higher) values will decrease (increase) the gate time values to the corresponding percentage. The range is from “0%” to “200%”.



The “**Offset**” parameter allows you to change all gate time values by an absolute amount. “-” settings will decrease the gate time of each note by the corresponding amount, “+” settings will increase the gate time accordingly. The range is from “-9999” through “0” to “+9999”.



New Gate Time = Original Gate Time x rate/100 + offset

(If the right side of the equation is 0 or less, the New Gate Time becomes 1)

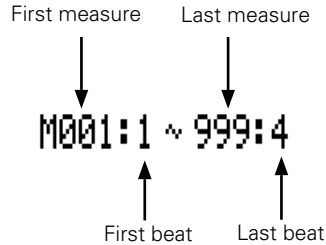
After setting the parameters as required press [ENTER] to execute the Modify Gate Time job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ **NOTE**

- The Modify Gate Time job can be used to produce a more staccato or legato feel, as required. Experiment with the parameters to get a feel for what they do.

04 : Crescendo

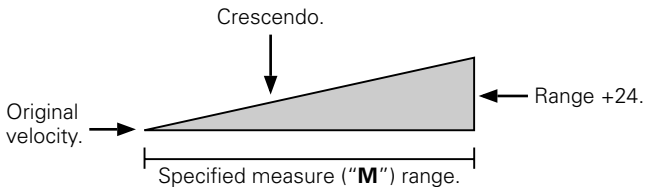
Produces a gradual crescendo (increase in note velocity) or decrescendo (decrease in note velocity) in the specified track over the specified range of measures.



The “**TR**” parameter selects the track to be affected by the Crescendo job: “01” ... “16”.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Range**” parameter determines the range of velocity values over which the crescendo will occur. A setting of “+24”, for example, will cause the MIDI velocity values to increase by 24 over the specified measure range (The MIDI velocity value range is from 1 to 127).

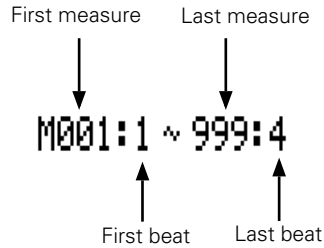
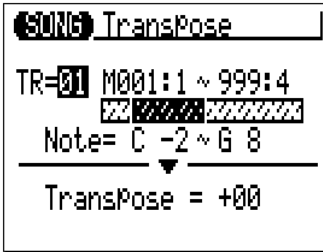


Negative values cause a corresponding decrease in velocity, thereby producing a decrescendo rather than a crescendo. The range of this parameter is from “-99” through “0” to “+99”.

After setting the parameters as required press [ENTER] to execute the Crescendo job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

05 : Transpose

Transposes all notes in the specified part up or down by the specified number of semitones.



The “**TR**” parameter selects the track to be affected by the Transpose job: “01” ... “16” for the sequencer tracks, or “Cd” for the accompaniment chord track.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Note**” parameters specify the range of notes to be affected. The maximum range is from “C-2” to “G8”.

The “**Transpose**” parameter determines the amount of transposition in semitone increments. Minus (-) values transpose down while plus (+) values transpose up. the range is from “-99” through “0” to “+99”.

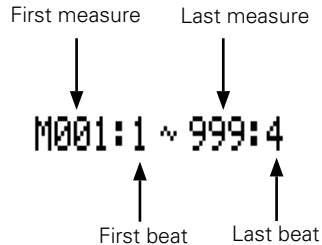
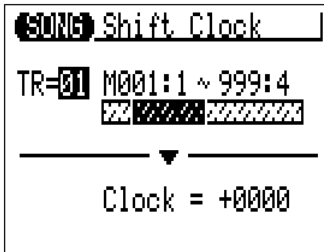
After setting the parameters as required press [ENTER] to execute the Transpose job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- *Of course, you can transpose all tracks as required to shift the entire song to a different key, but the Transpose job is actually more suited to changing the pitch of a section of a single track. This can be done to produce temporary “modulations” to another key, or to create harmony with another track.*

06 : Shift Clock

Moves all notes and events in the specified track and range of measures forward or backward by the specified number of clocks (480 clocks per 1/4 note).



The “**TR**” parameter selects the track to be affected by the Shift Clock job: “01” ... “16” for the sequencer tracks, or “Tm” for the tempo track.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Clock**” parameter determines the direction and number of clocks by which the notes in the specified measure range will be shifted. “+” settings shift the notes forward (toward the end of the song) and “-” settings shift the notes backward (toward the beginning of the song). The range is from “-9999” through “0000” to “+9999”.

After setting the parameters as required press [ENTER] to execute the Shift Clock job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

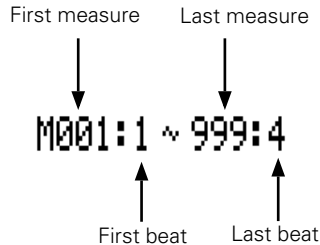
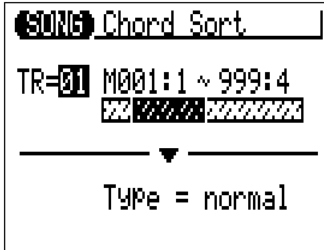
■ NOTE

- *The Shift Clock job will not shift data beyond the specified measure range. Events near the beginning and end of the specified range may therefore sound “bunched” together in some cases.*
- *Since the Shift Clock job actually shifts the timing of all notes and other events in the specified measures forward or backward, it can significantly alter the “feel” of the song. You could move the notes forward (“+” settings) to create a more “laid back” feel, or backward (“-” settings) to produce a more “driving” feel. Of course, you can also use Shift Clock to correct timing that is off in the first place.*



07 : Chord Sort

Sorts all notes in the specified measure range which fall on the same beat (i.e. chords) so that the notes are arranged in order from lowest to highest or from highest to lowest.



The "TR" parameter selects the track to be affected by the Chord Sort job: "01" ... "16".

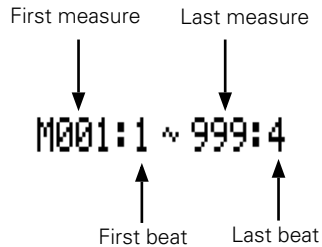
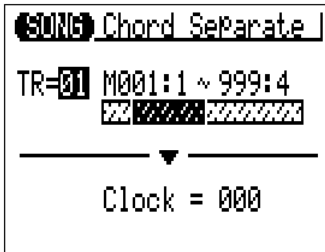
The "M" parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The "Type" parameter determines whether the chords in the specified range are arranged from lowest to highest note ("Normal") or from highest to lowest note ("Reverse").

After setting the parameters as required press [ENTER] to execute the Chord Sort job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

08 : Chord Separate

Shifts each note in the specified measure range which falls on the same beat (i.e. chords) forward in order from lowest to highest or vice versa according to the Chord Sort settings, by the specified number of clocks, thus "separating" the chord notes by the specified number of clocks.



The "TR" parameter selects the track to be affected by the Chord Separate job: "01" ... "16".

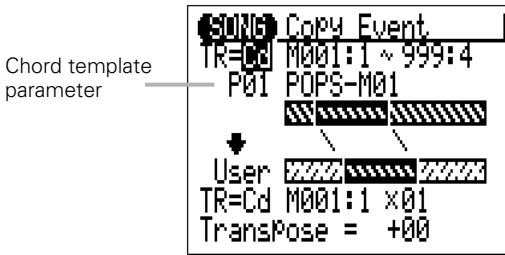
The "M" parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The "Clock" parameter determines the number of clocks by which the notes of the chord will be separated: "000" through "999".

After setting the parameters as required press [ENTER] to execute the Chord Separate job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

09 : Copy Event

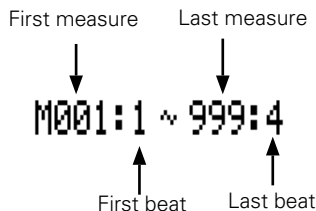
Copies all data from a specified range of measures from one track to the specified measure in the specified destination track. The copied data can also be transposed as required. This operation overwrites the data from the beginning of the specified destination measure with the data from the source measures. Previous data in the overwritten measures is therefore lost.



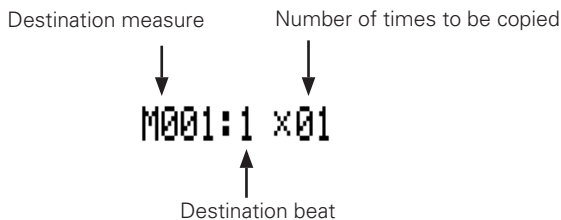
The upper **"TR"** parameter selects the source track — i.e. the track from which the data is to be copied: "01" ... "16" for the sequencer tracks, the accompaniment "Pt" track, the accompaniment "Cd" track, the "Tm" track, or "Al" (All) tracks. When "Pt", "Cd", "Tm" or "Al" is selected, the lower **"TR"** parameter is automatically set to the same track.

The lower **"TR"** parameter selects the destination track — i.e. the track to which the data is to be copied: "01" ... "16" for the sequencer tracks, the accompaniment "Pt" track, the accompaniment "Cd" track, the "Tm" track, or "Al" (All) tracks. When "Pt", "Cd", "Tm" or "Al" is selected, the upper **"TR"** parameter is automatically set to the same track.

The **"M"** parameters above the upper graphic bar are used to specify the first measure:beat and last measure:beat of the range to be copied.



The “M” parameters below the lower graphic bar specify the destination measure:beat to which the data will be copied, as well as the number of times the data is to be copied.



The “**Transpose**” parameter sets a transpose value for the copied data in semitone increments from “-24” through “+00” to “+24”.

The Chord template parameter, above the upper graphic bar, appears only when the “Cd” track is selected at the “**TR**” parameter. This parameter specifies which chord progression, either the user chord progression programmed in the source “Cd” track or preset chord template, will be copied to the **User** chord progression.

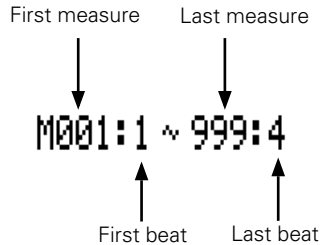
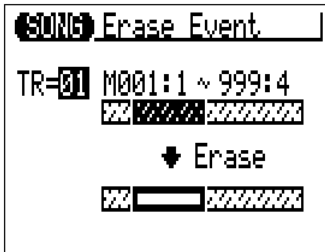
After setting the parameters as required press [ENTER] to execute the Copy Event job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ **NOTE**

- Previous data in measures overwritten by the Copy Event job will be completely erased and replaced by the copied data.
- The time signature is copied by the Copy Event job, but Voice and Play Effect data is not copied.
- The Copy Event job makes it easy to use phrases or even complete sections (an entire chorus, for example) in more than one place in a song. You can copy a phrase played by one voice, and have it repeated by a different voice later in the song. You can always edit the copied sections to create variations.
- Since the default copy source range is M001 ... 999 (measures), an “Illegal Input” error will occur if you attempt to copy to measure 002 or later without first changing the source range. Be sure to set an appropriate source range even when the chord track (“Cd”) is selected as source track.

10 : Erase Event

Erases all note and event data from the specified measure or range of measures in the specified track. An erase operation leaves the specified measures intact but blank.



The “**TR**” parameter selects the track to be affected by the Erase Event job: “01” ... “16” for the sequencer tracks, the accompaniment “Pt” track, the accompaniment “Cd” track, or the “Tm” track.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be erased.

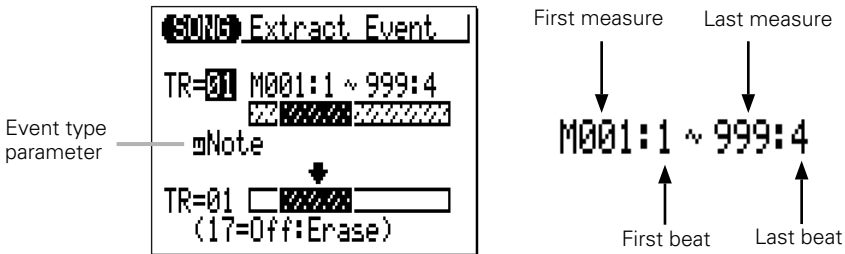
After setting the parameters as required press [ENTER] to execute the Erase Event job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- Unlike the Delete Measure job, the Erase Event job erases the data from the specified measures only in the specified track. Also, the data is erased but the measures remain intact (i.e. the subsequent measures are not moved back). After an erase operation you can record new material in the resulting blank measures as required.

11 : Extract Event

Allows a specified type of event — note, program change, pitch bend, control change, channel aftertouch, polyphonic aftertouch, or system exclusive — to be extracted (removed) from a specified range of measures in a specified track. The extracted data can be moved to the same range of measures in any other specified track.



The upper “**TR**” parameter selects the source track — i.e. the track from which the event data is to be extracted: “01” ... “16”.

The lower “**TR**” parameter selects the destination track — i.e. the track to which the extracted event data is to be moved: “01” ... “17”, or “Off” if you simply want to discard the specified event data.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range from which the event data is to be extracted.

The event type parameter near the upper graphic bar determines the type of event data to be extracted:

NOTE	Note events.
PC	Program change events.
PB	Pitch bend events.
CC	Control change events. When this event type is selected a control change number parameter appears to the right of the event type. The control change parameter determines the MIDI control change number(s) to be extracted: “000” ... “127” or “All”.
CAT	Channel aftertouch events.
PAT	Polyphonic aftertouch events.
EXC	Exclusive events.

After setting the parameters as required press [ENTER] to execute the Extract Event job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ **NOTE**

- *Although you can remove events individually in the edit mode (page 216), the Extract Event job makes it simple to remove all occurrences of the specified event within the specified measure range in one operation. This is particularly convenient when removing slow pitch bends or volume changes that may employ many individual events to create a single effect.*
- *If the destination track already contains data, the extracted event data will be merged.*

12 : Create Continuous

This job makes it possible to create continuous data of the specified type in order to produce smooth pitch bends, tempo changes, etc.

The screenshot shows the 'Create Continuous Data' menu with the following options: **TR=01**, **M001:1 ~ 999:4**, **PB** Pitch Bend, Data= -8192 ~ +8191, Clock= 001, and Curve= +00. A label 'Data type parameter' points to the 'PB' option. To the right, a diagram shows the notation 'M001:1 ~ 999:4' with arrows indicating 'First measure' and 'Last measure' pointing to the first and last measures, and 'First beat' and 'Last beat' pointing to the first and last beats within those measures.

The “**TR**” parameter selects the track to be affected by the Create Continuous job: “01” ... “16” for the sequencer tracks, or “Tm” for the tempo track.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

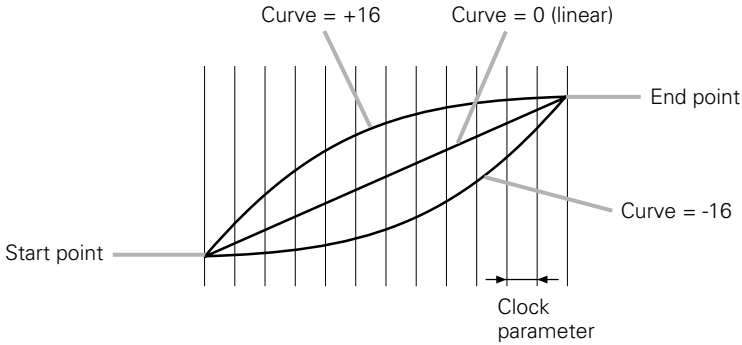
The data type parameter determines the type of data to be created

PB	Pitch bend events.
CC	Control change events. When this event type is selected a control change number parameter appears to the right of the type parameter. The control change parameter determines the MIDI control change number to be created: “000” ... “127”.
CAT	Channel aftertouch events.
EXC	Master volume.
TMP	Tempo events (can only be selected for the Tm (Tempo) track).

The “**Data**” parameters set the range of data values to be created: the left number sets the starting value and the right number sets the ending value. The range of values available will depend on the type of event selected.

The “**Clock**” parameter sets the spacing between the created events in clocks: “000” ... “999”.

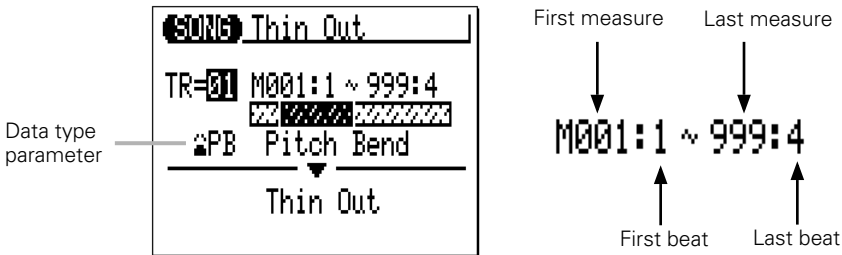
The “**Curve**” parameter sets the degree of positive or negative “curvature” that will be applied to the continuous data: “-16” ... “00” ... “+16”.



After setting the parameters as required press [ENTER] to execute the Create Continuous job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

13 : Thin Out

“Thins out” specified types of data by removing every other event of the specified type. This is particularly useful for reducing the volume of data required for pitch bends, aftertouch and other control change operations, thus making more efficient use of the available memory.



The “**TR**” parameter selects the track to be affected by the Thin Out job: “01” ... “16” for the sequencer tracks, or “Tm” for the tempo track.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

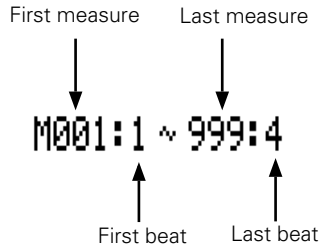
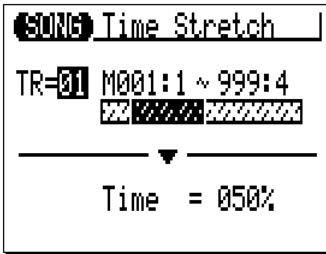
The data type parameter determines the type of data to be thinned.

PB	Pitch bend events.
CC	Control change events. When this event type is selected a control change number parameter appears to the right of the type parameter. The control change parameter determines the MIDI control change number to be thinned: “000” ... “127”.
CAT	Channel aftertouch events.
PAT	Polyphonic aftertouch events.
TMP	Tempo events (can only be selected for the Tm (Tempo) track).

After setting the parameters as required press [ENTER] to execute the Thin Out job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

14 : Time Stretch

Lengthens or shortens the specified track by a specified percentage without affecting tempo or pitch.



The “**TR**” parameter selects the track to be affected by the Time Stretch job: “01” ... “16” for the sequencer tracks, or “Al” for all sequencer tracks.

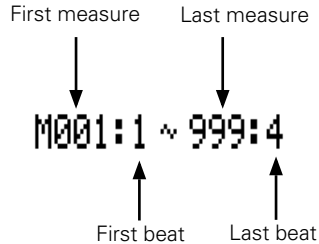
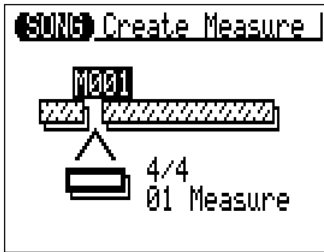
The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Time**” parameter specifies the percentage by which the time is to be lengthened or shortened: “50%” ... “200%”. Gate time of notes in the specified track and measures will also be changed in proportion to this setting.

After setting the parameters as required press [ENTER] to execute the Time Stretch job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

15 : Create Measure

Creates a specified number of blank measures having the specified time signature for all tracks. The created measures are inserted at a specified measure number, and all subsequent measures are moved forward to make room.



The “**M**” parameter above the graphic bar specifies the measure at which the newly created measures will be inserted.

The time signature parameter below the graphic bar determines the time signature of the measures to be created: 1/16 ... 16/16, 1/8 ... 16/8, 1/4 ... 8/4.

The “**Measure**” parameter below the bar specifies the number of measures to be created.

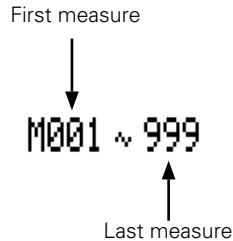
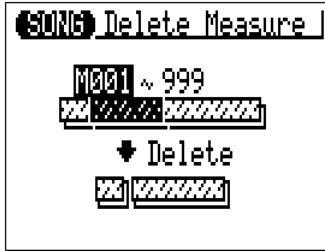
After setting the parameters as required press [ENTER] to execute the Create Measure job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- All existing measures after the point at which the new measures are created will be moved forward to make room for the new measures.
- If you use the Create Measure job with an empty song, the specified new measures will be placed in track 1 only.
- Use Create Measure when you want to add new material somewhere in the middle of data you’ve already recorded, without erasing the existing data. First create the required measures, then either copy the data from existing measures using the Copy Event function, or record new data as required.

16 : Delete Measure

Deletes the specified range of measures from all tracks simultaneously.



The “**M**” parameters above the graphic bar are used to specify the first measure and last measure of the range to be deleted.

After setting the parameters as required press [ENTER] to execute the Delete Measure job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- *Delete Measure is a great way to completely cut out unwanted data from the song. It's important to remember, however, that a delete operation affects all tracks simultaneously, and that measures following the deleted range are moved back to take the place of the deleted measures.*

17 : Copy Track

Copies all data from the specified track to any other specified track.

```

(SONG) COPY Track
TR=01 [hatched box]
      ↓ Copy
TR=01 [hatched box]
 Event
 Play Effect
 Voice
  
```

The upper “**TR**” parameter selects the source track — i.e. the track from which the data is to be copied: “01” ... “16”.

The lower “**TR**” parameter selects the destination track — i.e. the track to which the data is to be copied: “01” ... “16”.

The “**Event**”, “**Play Effect**”, and “**Voice**” check boxes make it possible to specify whether or not the corresponding types of data will be copied or not (the data is copied when the checkbox is checked).

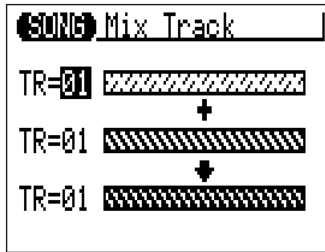
After setting the parameters as required press [ENTER] to execute the Copy Track job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If the destination track already contains data, the copied track data will erase and replace the previous data.

18 : Mix Track

Combines the data contained in two specified tracks and places the result in a third track (which can be the same as the second track).



The upper and center “**TR**” parameters select the first and second source tracks — i.e. the tracks which are to be mixed: “01” ... “16”.

The lower “**TR**” (“01” ... “16”) parameter specifies the destination track to which the mixed data is to be copied.

After setting the parameters as required press [ENTER] to execute the Mix Track job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If there is no data in the second source track, the data from the first source track is simply copied to the destination track.

19 : Clear Track

Completely clears the specified track from the currently selected song (including all Play Effect parameters).



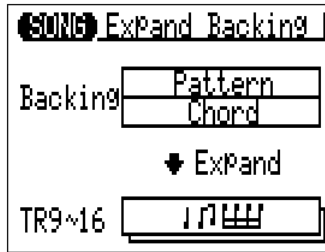
The “**TR**” parameter selects the track(s) to be cleared: “01” ... “16” for the sequencer tracks, the accompaniment “Pt” track, the accompaniment “Cd” track, the “Tm” track, or “Al” (All) tracks.

The “**Event**”, “**Play Effect**”, and “**Voice**” check boxes make it possible to specify whether or not the corresponding types of data will be cleared or not (the data is cleared when the checkbox is checked).

After setting the parameters as required press [ENTER] to execute the Clear Track job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

20 : Expand Backing

“Expands” the accompaniment track data — i.e. the pattern and chord data — and places the results in the normal sequencer tracks after converting the data to standard MIDI format. The expanded data is placed in sequencer tracks 9 through 16 (see chart below). Any previous data in those tracks will be erased!



Press [ENTER] to execute the Expand Backing job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

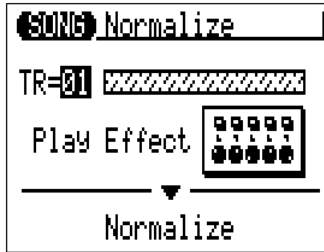
Pattern Track	Sequencer Track
D1	9
D2	10
PC	11
BA	12
C1	13
C2	14
C3	15
C4	16

■ NOTE

- If the “Ds3” (Drum set 3) is assigned to the D1, D2 or PC track of the expanded pattern, the drum voice settings will be copied to “Ds2” (Drum set 2). The previous settings in Ds2 will be overwritten (erased).

21 : Normalize

Actually applies the Play Effect settings to the sequence data, modifying the sequence data accordingly. The Play Effect settings are initialized after execution.

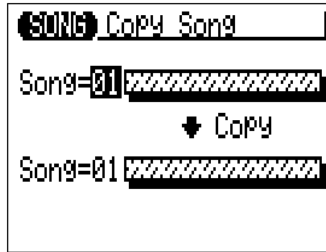


The “**TR**” parameter selects the track(s) to be affected by the Normalize job: “01” ... “16” for the sequencer tracks, or “Al” (All) for all sequencer tracks.

After setting the parameter as required press [ENTER] to execute the Normalize job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

22 : Copy Song

Copies all data from all tracks of the specified song to any other specified song (including song name, play effect and voice assignment settings).



The upper "**Song**" parameter selects the source song — i.e. the song from which the data is to be copied: "01" ... "20".

The lower "**Song**" parameter selects the destination song — i.e. the song to which the data is to be copied: "01" ... "20"

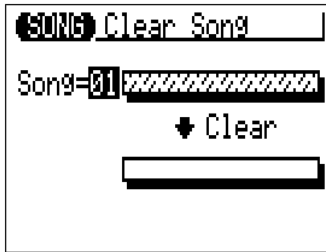
After setting the parameters as required press [ENTER] to execute the Copy Song job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If the destination song already contains data, the copied song will erase and replace the previous song.

23 : Clear Song

Completely clears all data from all tracks of the currently selected song. Also initializes the play effect and voice settings.



The "**Song**" parameter selects the song to be cleared: "01" ... "20" or "Al"(All)

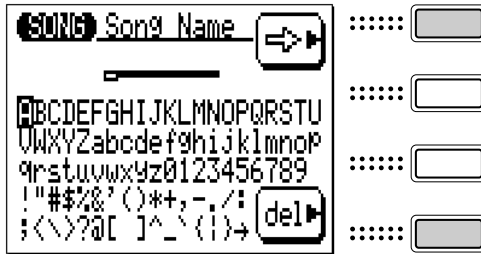
After setting the parameter as required press [ENTER] to execute the Clear Song job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ **NOTE**


- Clearing "All" songs can not be undone with the "Undo/Redo" job.

24 : Song Name

Allows an original name of up to 8 characters to be assigned to the current song.



To enter a character, use the cursor buttons to move the cursor to the character to be entered, then press the [ENTER] button. The character will appear at the character cursor location and the character cursor will advance to the next character position.

The character cursor can be moved by pressing the function button to the right of "  "

To delete a character, press the function button to the right of "del". The character to the left of the cursor will be deleted and the cursor will move to the deleted character's position.

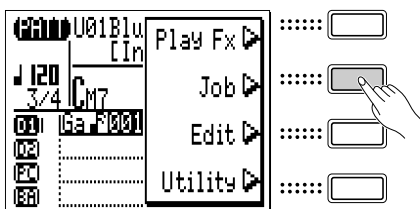
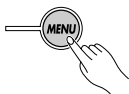
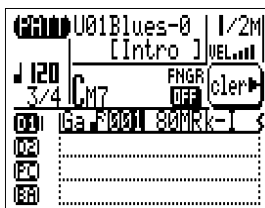
When the name has been entered press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode (it is not necessary to press the [ENTER] button to enter the specified name).

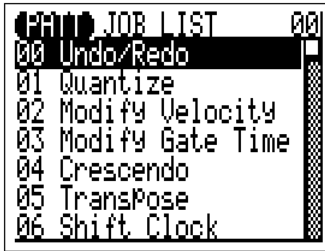
■ NOTE

- Entering a song name can not be undone with the "Undo/Redo" job.

The Pattern Jobs

The PATTERN mode includes 24 pattern “jobs” that perform a variety of important functions. To access and use the pattern jobs, press the [MENU] button while in the main PATTERN mode, then press the “Job” function button. This calls the pattern job list. You can select any job on the list simply by moving the cursor to the required job and pressing [ENTER]. The function buttons can be used to move the cursor directly to the first job in the corresponding category: Event, Phrase, Track, or Pattern (press the [MENU] button, then the appropriate function button).





00: Undo/Redo	14: Time Stretch
“Event” category	“Phrase” category
01: Quantize	15: Copy Phrase
02: Modify Velocity	16: Get Phrase
03: Modify Gate Time	17: Put Phrase
04: Crescendo	“Track” category
05: Transpose	18: Copy Track
06: Shift Clock	19: Mix Track
07: Chord Sort	20: Clear Track
08: Chord Separate	“Pattern” category
09: Copy Event	21: Copy Pattern
10: Erase Event	22: Clear Pattern
11: Extract Event	23: Style Name
12: Create Continuous	
13: Thin Out	

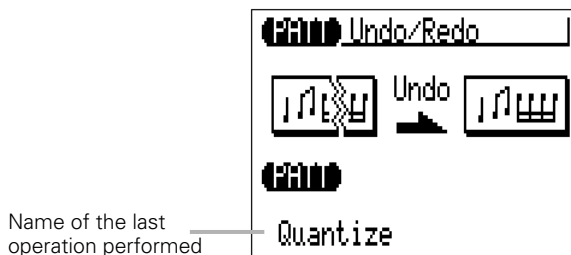
■ **Returning to the PATTERN Mode**

The [EXIT] button can be used to exit from any pattern job, and then from the job list thereby returning you to the normal PATTERN mode. You can also press the [PATTERN] button to directly return to the PATTERN mode.



00 : Undo/Redo

This job will “undo” any other pattern/song job, edit, or record function if it is executed before any other operation is performed. In all cases the affected data is restored to the state it was in before performing the job, edit, or record operation. This job will also undo the last undo operation (redo).



The name of the last operation performed will appear on the display (i.e. the operation which will be “undone”). In the example display, above, a quantize operation will be undone.

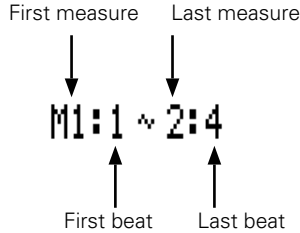
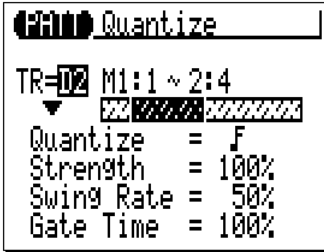
Press [ENTER] to execute the Undo/Redo job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ **DETAIL!**

- The UNDO/REDO job will not undo the Clear Song (“All”), the Clear Pattern (“All” styles), the Song Name, or Style Name jobs.

01 : Quantize

Aligns notes in the specified track to or close to the nearest specified beat.





The “TR” parameter selects the track to be affected by the Quantize job: D1, D2, PC, BA, C1, C2, C3, C4.


The “M” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be quantized.

The “Quantize” parameter determines to what beats the note data in the specified track will be aligned. If you select “ F ”, for example, all notes in the track will be aligned to the nearest 16th-note beat, to a degree determined by the “Strength” parameter.

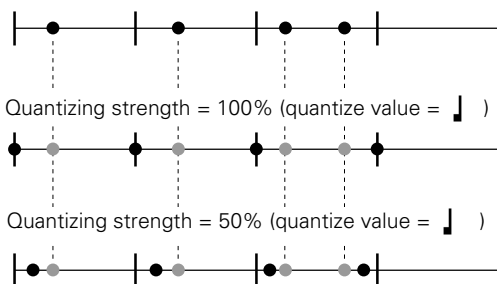
Quantize Values

Value	Effect
	Aligns to the nearest 32nd note.
	Aligns to the nearest 16th note triplet.
	Aligns to the nearest 16th note.
	Aligns to the nearest 8th note triplet.
	Aligns to the nearest 8th note.
	Aligns to the nearest quarter note triplet.
	Aligns to the nearest quarter note.

Value	Effect
	Aligns to the nearest 16th note + 16th note triplet.
	Aligns to the nearest 8th note + 8th note triplet.

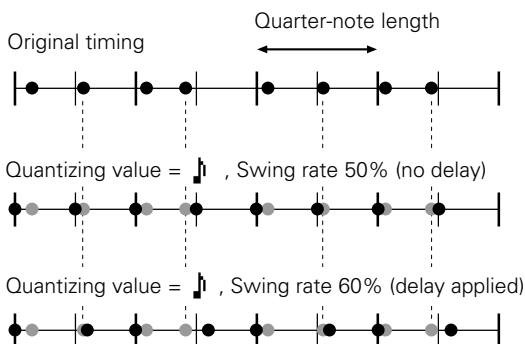
The “**Strength**” parameter determines how “strongly” the notes are attracted to the specified quantize value. The strength range is from 0% to 100%. At a setting of “0%” no quantization will occur, while a setting of “100%” will cause all notes to be aligned precisely to the nearest specified beat value. In-between settings produce a corresponding shift in the position of all off-beat notes to the nearest specified beat value. With a value setting of “” and a strength setting of 50%, for example, a note that does not fall precisely on a quarter note beat will be shifted about halfway to nearest quarter note beat.

Original data (assuming 4/4 meter)



The “**Swing Rate**” parameter produces a “swing” feel by shifting the timing of “back beats”, as specified by the quantize value. For example, if the specified quantization value is 8th notes, then the swing effect will shift the 2nd, 4th, 6th, and 8th beats of each measure forward to create a swing feel. If the quantize value is set to a triplet note length, the last note in each triplet group will be shifted. If the quantize value is set to a compound note length (e.g. 8th note + 8th note triplet) the even-numbered back beats will be shifted. The “Swing Rate” parameter determines how much the timing of the affected notes will be shifted. The range is from 50% (no swing) to 75% (maximum swing) for even note lengths, from 66% to 83% for triplet note lengths, and from 50% to 66% for even-plus-triplet note lengths (e.g. 8th note + 8th note triplet).



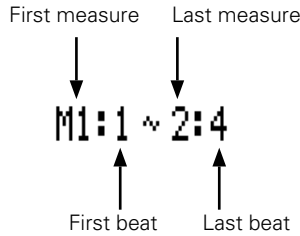
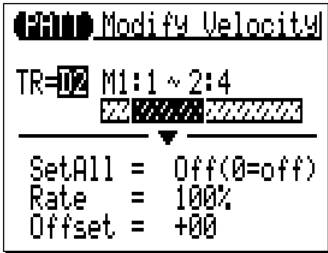


The “**Gate Time**” parameter increases or decreases the gate times (length) of all notes affected by the swing parameter. The range is from 0% to 200%. The “Gate Time” parameter sets the ratio between the shorter and longer gate time values. A setting of “100%” maintains the original relationship between the notes, lower values produce a narrower gate time range, and higher values produce a broader gate time range.

After setting the parameters as required press [ENTER] to execute the Quantize job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

02 : Modify Velocity

Increases or decreases the velocity values of all notes in the specified track and range of measures.

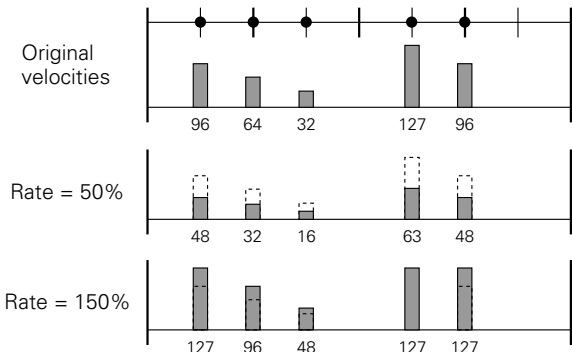


The “**TR**” parameter selects the track to be affected by the Modify Velocity job: D1, D2, PC, BA, C1, C2, C3, C4.

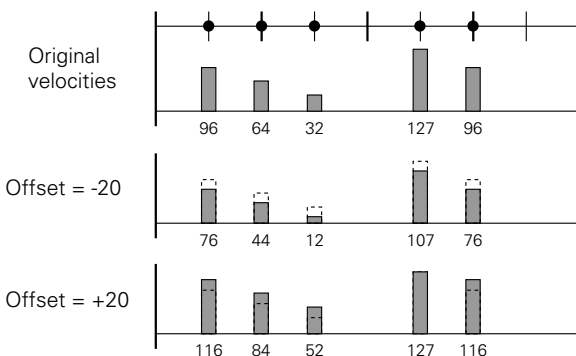
The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**SetAll**” parameter makes it possible to set all notes in the specified range to a single velocity value from “1” to “127”. “Set All” can also be turned “Off” when the “Rate” and “Offset” parameters, below, are to be used for velocity modification.

The “**Rate**” parameter allows you to change the Velocity value of each note without affecting the velocity ratios between notes (proportional change). A setting of “100%” maintains the absolute velocity differences between notes, while lower (higher) values will decrease (increase) the velocity values to the corresponding percentage, resulting in a narrower (wider) dynamic range. The range is from “0%” to “200%”.



The “**Offset**” parameter allows you to change all velocity values by an absolute amount. “-” settings will decrease the velocity of each note by the corresponding amount, “+” settings will increase the velocity accordingly. The range is from “-99” through “0” to “+99”.



New Velocity = Original Velocity x rate/100 + offset

(If the right side of the equation is 0 or less, the New Velocity becomes 1. If the right side of the equation is 128 or more, the New Velocity becomes 127.)

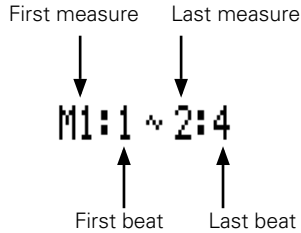
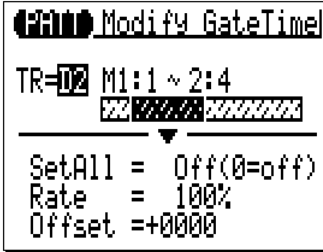
After setting the parameters as required press [ENTER] to execute the Modify Velocity job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

NOTE

- *The Modify Velocity job is a great way to “soften” the sound of material that has too great a variation between the softest and loudest notes, or, conversely, to add extra punch to dull-sounding material. Experiment with the parameters to get a feel for what they do..*

03 : Modify Gate Time

Increases or decreases the gate times (length) of all notes in the specified track and range of measures.

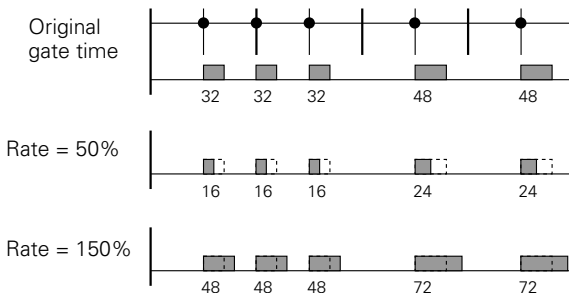


The “**TR**” parameter selects the track to be affected by the Modify Gate Time job: D1, D2, PC, BA, C1, C2, C3, C4.

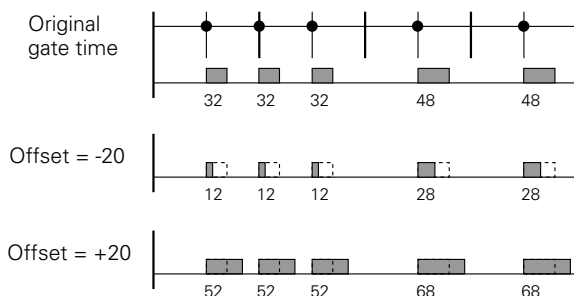
The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**SetAll**” parameter makes it possible to set all notes in the specified range to a single gate time value from “1” to “9999”. “Set All” can also be turned “Off” when the “Rate” and “Offset” parameters, below, are to be used for gate time modification.

The “**Rate**” parameter allows you to change the Gate Time value of each note without affecting the gate time ratios between notes (proportional change). A setting of “100%” maintains the absolute gate time differences between notes, while lower (higher) values will decrease (increase) the gate time values to the corresponding percentage. The range is from “0%” to “200%”.



The “**Offset**” parameter allows you to change all gate time values by an absolute amount. “-” settings will decrease the gate time of each note by the corresponding amount, “+” settings will increase the gate time accordingly. The range is from “-9999” through “0” to “+9999”.



New Gate Time = Original Gate Time x rate/100 + offset

(If the right side of the equation is 0 or less, the New Gate Time becomes 1)

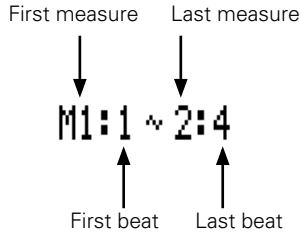
After setting the parameters as required press [ENTER] to execute the Modify Gate Time job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- *The Modify Gate Time job can be used to produce a more staccato or legato feel, as required. Experiment with the parameters to get a feel for what they do..*

04 : Crescendo

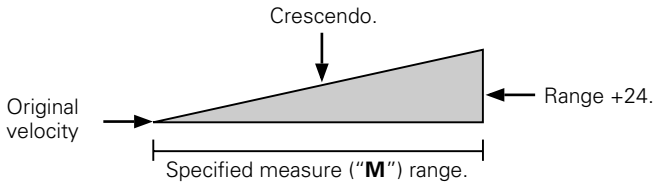
Produces a gradual crescendo (increase in note velocity) or decrescendo (decrease in note velocity) in the specified track over the specified range of measures.



The “**TR**” parameter selects the track to be affected by the Crescendo job: D1, D2, PC, BA, C1, C2, C3, C4.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Range**” parameter determines the range of velocity values over which the crescendo will occur. A setting of “+24”, for example, will cause the MIDI velocity values to increase by 24 over the specified measure range (The MIDI velocity value range is from 1 to 127).



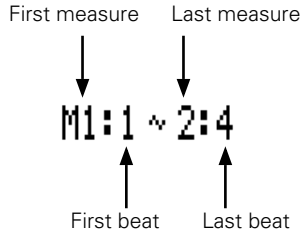
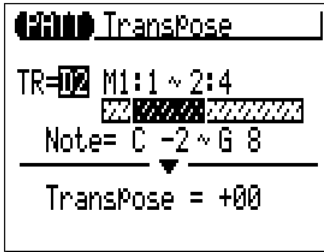
Negative values cause a corresponding decrease in velocity, thereby producing a decrescendo rather than a crescendo. The range of this parameter is from “-99” through “0” to “+99”.



After setting the parameters as required press [ENTER] to execute the Crescendo job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

05 : Transpose

Transposes all notes in the specified part up or down by the specified number of semitones.



The "TR" parameter selects the track to be affected by the Transpose job: D1, D2, PC, BA, C1, C2, C3, C4.

The "M" parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

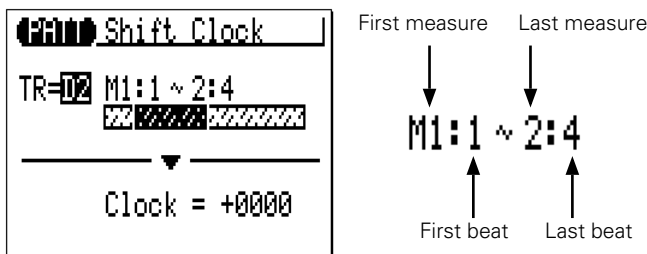
The "Note" parameters specify the range of notes to be affected. The maximum range is from "C-2" to "G8".

The "Transpose" parameter determines the amount of transposition in semitone increments. Minus (-) values transpose down while plus (+) values transpose up. the range is from "-99" through "0" to "+99".

After setting the parameters as required press [ENTER] to execute the Transpose job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

06 : Shift Clock

Moves all notes and events in the specified track and range of measures forward or backward by the specified number of clocks (480 clocks per 1/4 note).



The “**TR**” parameter selects the track to be affected by the Shift Clock job: D1, D2, PC, BA, C1, C2, C3, C4.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Clock**” parameter determines the direction and number of clocks by which the notes in the specified measure range will be shifted. “+” settings shift the notes forward (toward the end of the pattern) and “-” settings shift the notes backward (toward the beginning of the pattern). The range is from “-9999” through “0000” to “+9999”.

After setting the parameters as required press [ENTER] to execute the Shift Clock job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

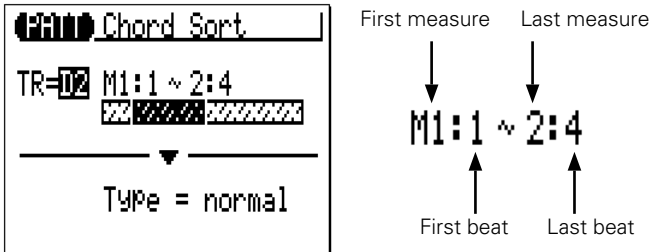
■ NOTE

- *The Shift Clock job will not shift data beyond the specified measure range. Therefore, events near the beginning of the specified range may sound “bunched” together and events near the end of the specified range may be “cut off” in some cases.*
- *Since the Shift Clock job actually shifts the timing of all notes and other events in the specified measures forward or backward, it can significantly alter the “feel” of the pattern. You could move the notes forward (“+” settings) to create a more “laid back” feel, or backward (“-” settings) to produce a more “driving” feel. Of course, you can also use Shift Clock to correct timing that is off in the first place.*



07 : Chord Sort

Sorts all notes in the specified measure range which fall on the same beat (i.e. chords) so that the notes are arranged in order from lowest to highest or from highest to lowest.



The “**TR**” parameter selects the track to be affected by the Chord Sort job: D1, D2, PC, BA, C1, C2, C3, C4.

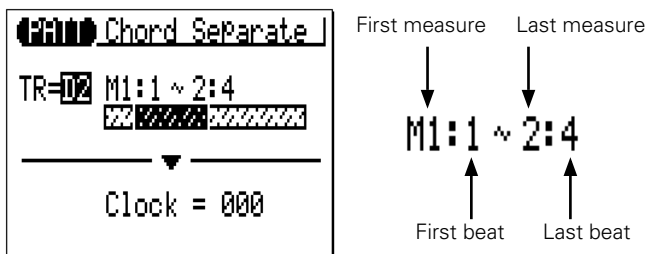
The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Type**” parameter determines whether the chords in the specified range are arranged from lowest to highest note (“Normal”) or from highest to lowest note (“Reverse”).

After setting the parameters as required press [ENTER] to execute the Chord Sort job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

08 : Chord Separate

Shifts each note in the specified measure range which falls on the same beat (i.e. chords) forward in order from lowest to highest or vice versa according to the Chord Sort settings, by the specified number of clocks, thus “separating” the chord notes by the specified number of clocks.



The “**TR**” parameter selects the track to be affected by the Chord Separate job: D1, D2, PC, BA, C1, C2, C3, C4.

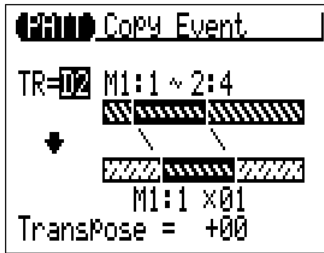
The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Clock**” parameter determines the number of clocks by which the notes of the chord will be separated: “000” through “999”.

After setting the parameters as required press [ENTER] to execute the Chord Separate job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

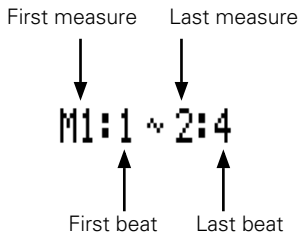
09 : Copy Event

Copies all data from a specified range of measures to the selected place in the same track. The copied data can also be transposed as required. This operation overwrites the data from the beginning of the specified destination measure with the data from the source measures. Previous data in the overwritten measures is therefore lost.

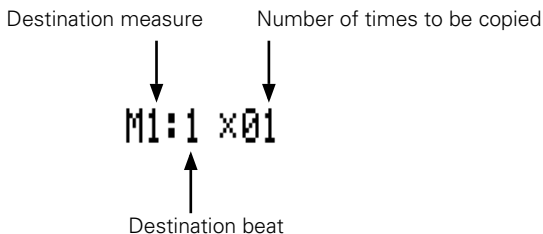


The upper "**TR**" parameter selects the source track — i.e. the track from which the data is to be copied: D1, D2, PC, BA, C1, C2, C3, C4.

The "**M**" parameters above the upper graphic bar are used to specify the first measure:beat and last measure:beat of the range to be copied.



The “**M**” parameters below the lower graphic bar specify the destination measure:beat to which the data will be copied, as well as the number of times the data is to be copied.



The “**Transpose**” parameter sets a transpose value for the copied data in semitone increments from “-24” through “+00” to “+24”.

After setting the parameters as required press [ENTER] to execute the Copy Event job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

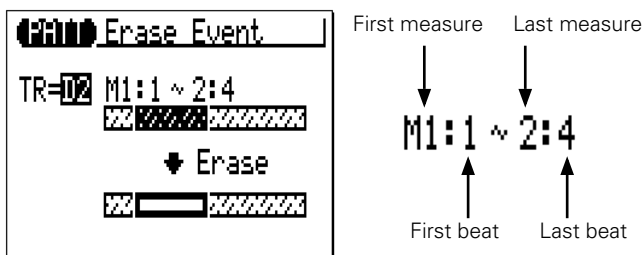
■ **NOTE**

- Previous data in measures overwritten by the Copy Event job will be completely erased and replaced by the copied data.



10 : Erase Event

Erases all note and event data from the specified measure or range of measures in the specified track. An erase operation leaves the specified measures intact but blank.



The “**TR**” parameter selects the track to be affected by the Erase Event job: D1, D2, PC, BA, C1, C2, C3, C4.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be erased.

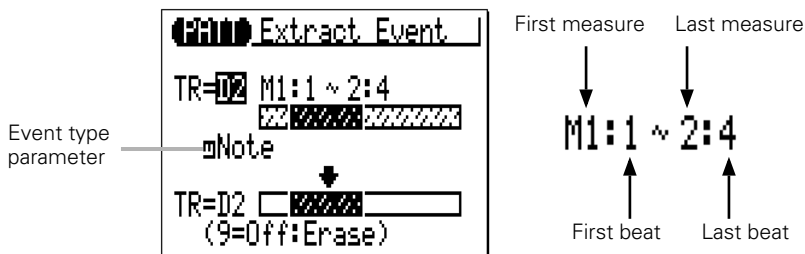
After setting the parameters as required press [ENTER] to execute the Erase Event job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- The Erase Event job erases the data from the specified measures only in the specified track. Also, the data is erased but the measures remain intact (i.e. the subsequent measures are not moved back). After an erase operation you can record new material in the resulting blank measures as required.

11 : Extract Event

Allows a specified type of event — note, program change, pitch bend, control change, channel aftertouch, polyphonic aftertouch, or system exclusive — to be extracted (removed) from a specified range of measures in a specified track. The extracted data can be moved to the same range of measures in any other specified track.



The upper **"TR"** parameter selects the source track — i.e. the track from which the event data is to be extracted: D1, D2, PC, BA, C1, C2, C3, C4.

The lower **"TR"** parameter selects the destination track — i.e. the track to which the extracted event data is to be moved: D1, D2, PC, BA, C1, C2, C3, C4, or "Off" if you simply want to discard the specified event data.

The **"M"** parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range from which the event data is to be extracted.

The event type parameter near the upper graphic bar determines the type of event data to be extracted:

NOTE	Note events.
PC	Program change events.
PB	Pitch bend events.
CC	Control change events. When this event type is selected a control change number parameter appears to the right of the even type. The control change parameter determines the MIDI control change number(s) to be extracted: "000" ... "127" or "All".
CAT	Channel aftertouch events.
PAT	Polyphonic aftertouch events.
EXC	Exclusive events.

After setting the parameters as required press [ENTER] to execute the Extract Event job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ **NOTE**

- *Although you can remove events individually in the edit mode (page 216), the Extract Event job makes it simple to remove all occurrences of the specified event within the specified measure range in one operation. This is particularly convenient when removing slow pitch bends or volume changes that may employ many individual events to create a single effect.*
- *If the destination track already contains data, the extracted event data will be merged.*

12 : Create Continuous

This job makes it possible to create continuous data of the specified type in order to produce smooth pitch bends, aftertouch, etc.

The screenshot shows the 'Create Continuous Data' menu with the following parameters:

- TR=01
- M1:1 ~ 1:4
- ▣PB Pitch Bend
- Data= -8192 ~ +8191
- Clock= 060
- Curve= +00

A label 'Data type parameter' points to the 'PB' parameter. To the right, a diagram shows the notation 'M1:1 ~ 1:4' with arrows indicating 'First measure' and 'Last measure' pointing to the first and last measures, and 'First beat' and 'Last beat' pointing to the first and last beats of the first measure.

The "TR" parameter selects the track to be affected by the Create Continuous job: D1, D2, PC, BA, C1, C2, C3, C4.

The "M" parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

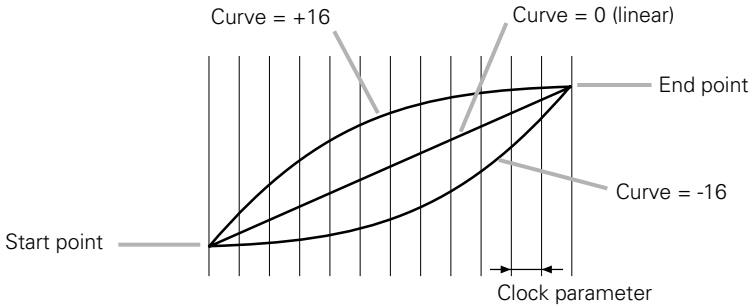
The data type parameter determines the type of data to be created.

PB	Pitch bend events.
CC	Control change events. When this event type is selected a control change number parameter appears to the right of the type parameter. The control change parameter determines the MIDI control change number to be created: "000" ... "127".
CAT	Channel aftertouch events.
EXC	Master volume.

The "Data" parameters set the range of data values to be created: the left number sets the starting value and the right number sets the ending value. The range of values available will depend on the type of event selected.

The "Clock" parameter sets the spacing between the created events in clocks: "000" ... "999".

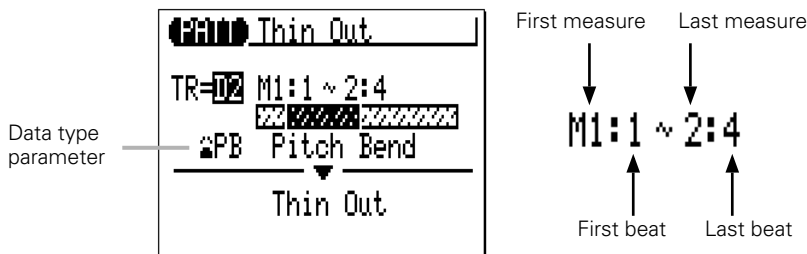
The "**Curve**" parameter sets the degree of positive or negative "curvature" that will be applied to the continuous data: "-16" ... "00" ... "+16".



After setting the parameters as required press [ENTER] to execute the Create Continuous job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

13 : Thin Out

“Thins out” specified types of data by removing every other event of the specified type. This is particularly useful for reducing the volume of data required for pitch bends, aftertouch and other control change operations, thus making more efficient use of the available memory.



The “**TR**” parameter selects the track to be affected by the Thin Out job: D1, D2, PC, BA, C1, C2, C3, C4.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

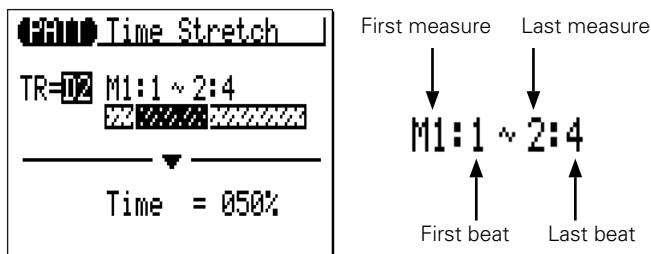
The data type parameter determines the type of data to be thinned.

PB	Pitch bend events.
CC	Control change events. When this event type is selected a control change number parameter appears to the right of the type parameter. The control change parameter determines the MIDI control change number to be thinned: “000” ... “127”.
CAT	Channel aftertouch events.
PAT	Polyphonic aftertouch events.

After setting the parameters as required press [ENTER] to execute the Thin Out job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

14 : Time Stretch

Lengthens or shortens the specified track by a specified percentage without affecting tempo or pitch.



The “**TR**” parameter selects the track to be affected by the Time Stretch job: D1, D2, PC, BA, C1, C2, C3, C4.

The “**M**” parameters above the graphic bar are used to specify the first measure:beat and last measure:beat of the range to be modified.

The “**Time**” parameter specifies the percentage by which the time is to be lengthened or shortened: “50%” ... “200%”. The gate time of notes in the specified track and measures will also be changed in proportion to this setting.

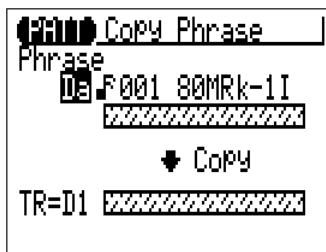
After setting the parameters as required press [ENTER] to execute the Time Stretch job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If the specified track is shortened, the phrase of the track will play repeatedly to fill the pattern length.
- If the specified track is lengthened, the exceeding part of the phrase will be cut off.

15 : Copy Phrase

Copies the specified preset phrase to a specified PATTERN mode track as a user phrase.



The “**Phrase**” parameter selects the source phrase — i.e. the preset phrase to be copied (preset phrase numbers have three sections which can be specified: category, beat, and number — page 98).

The “**TR**” parameter selects the destination track: D1, D2, PC, BA, C1, C2, C3, C4.

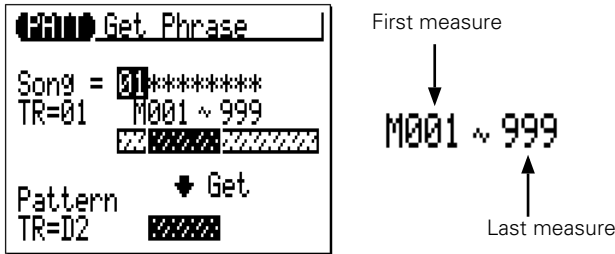
After setting the parameters as required press [ENTER] to execute the Copy Phrase job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If the specified preset phrase is shorter than the pattern length, the phrase will be copied repeatedly to fill the pattern length.
- If the specified preset phrase is longer than the pattern length, the exceeding part of the copied phrase will be cut off.
- If the destination track already contains data, the copied phrase will erase and replace the previous phrase data.

16 : Get Phrase

Copies the data from the specified range of measures in the specified track of a specified song to the specified phrase.



The “**Song**” parameter selects the source song — i.e. the song from which the data is to be copied: “01” ... “20”.

The “**TR**” parameter selects the song source track — i.e. the track from which the data is to be copied: “01” ... “16”.

The “**M**” parameters above the upper graphic bar are used to specify the first measure and last measure of the range to be copied.

The lower “**TR**” parameter specified the track to which the data is to be copied: D1, D2, PC, BA, C1, C2, C3, C4.

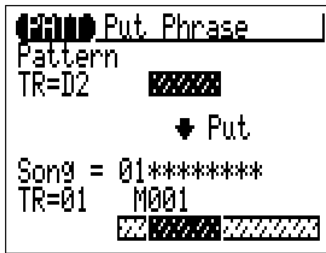
After setting the parameters as required press [ENTER] to execute the Get Phrase job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- The Get Phrase job is a convenient way to create new phrases by copying a few appropriate measures from songs.
- If the destination track already contains data, the copied data will erase and replace the previous phrase data.

17: Put Phrase

Copies the phrase data from a specified pattern track to the specified measures in the specified track of a specified song.



The “**Pattern TR**” parameter specifies the source pattern track: D1, D2, PC, BA, C1, C2, C3, C4.

The “**Song**” parameter selects the destination song — i.e. the song to which the phrase data is to be copied: “01” ... “20”.

The “**TR**” parameter selects the destination song track — i.e. the track to which the phrase data is to be copied: “01” ... “16”.

The “**M**” parameter specifies the measure of the destination track to which the phrase data is to be copied.

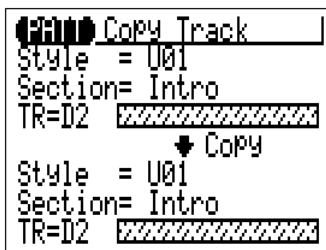
After setting the parameters as required press [ENTER] to execute the Put Phrase job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- The time signature of the phrase will not affect the time signature of the song.
- If the destination song track contains data, the copied phrase data will erase and replace the previous song track data.
- The source pattern data is re-harmonized to the current chord specified in the PATTERN play mode before being copied to the destination song track.

18 : Copy Track

Copies all data from the specified track in the specified section of the specified style to any other specified track in the specified section of the specified style.



The upper "**Style**" parameter specifies the source style: "001" ... "128", "U01" ... "U64".

The upper "**Section**" parameter specifies the source section: "Intro", "MainA", "MainB", "FillAB", "FillBA", "Ending".

The upper "**TR**" parameter selects the source track — i.e. the track from which the data is to be copied: D1, D2, PC, BA, C1, C2, C3, C4.

The lower "**Style**" parameter specifies the destination style: "U01" ... "U64".

The lower "**Section**" parameter specifies the destination section: "Intro", "MainA", "MainB", "FillAB", "FillBA", "Ending".

The lower "**TR**" parameter selects the destination track — i.e. the track to which the data is to be copied: D1, D2, PC, BA, C1, C2, C3, C4.

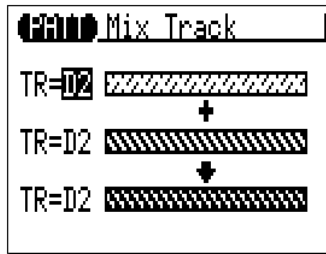
After setting the parameters as required press [ENTER] to execute the Copy Track job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If the destination track already contains data, the copied data will erase and replace the previous data.

19 : Mix Track

Combines the data contained in two specified tracks and places the result in a third track (which can be the same as the second track).



The upper and center “**TR**” parameters select the first and second source tracks — i.e. the tracks which are to be mixed: D1, D2, PC, BA, C1, C2, C3, C4.

The lower “**TR**” parameter specifies the destination track to which the mixed data is to be copied: D1, D2, PC, BA, C1, C2, C3, C4.

After setting the parameters as required press [ENTER] to execute the Mix Track job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If there is no data in the second source track, the data from the first source track is simply copied to the destination track.
- Even if a preset phrase is previously assigned to the destination track, it will be mixed with the first source track and become a user phrase.

20 : Clear Track

Completely clears the specified track in the specified section.



The "**Section**" parameter specifies the section to be cleared: "Intro", "MainA", "MainB", "FillAB", "FillBA", "Ending".

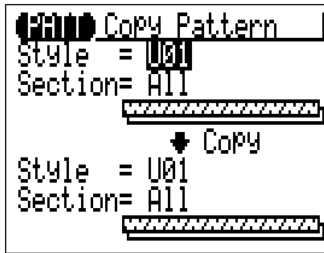
The "**TR**" parameter selects the track to be cleared: D1, D2, PC, BA, C1, C2, C3, C4.

The "**Event**", "**Play Effect**", and "**Voice**" check boxes make it possible to specify whether or not the corresponding types of data will be cleared or not (the data is cleared when the checkbox is checked).

After setting the parameters as required press [ENTER] to execute the Clear Track job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

21 : Copy Pattern

Copies all data from the specified section of the specified style to any other specified section of the specified style.



The upper "**Style**" parameter specifies the source style: "001" ... "128", "U01" ... "U64".

The upper "**Section**" parameter specifies the source section: "Intro", "MainA", "MainB", "FillAB", "FillBA", "Ending" and "All".

The lower "**Style**" parameter specifies the destination style: "U01" ... "U64".

The lower "**Section**" parameter specifies the destination section: "Intro", "MainA", "MainB", "FillAB", "FillBA", "Ending" and "All".

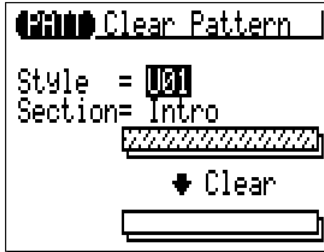
After setting the parameters as required press [ENTER] to execute the Copy Pattern job. The metronome icon will appear on the display while the data is being processed, then "Completed !" will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- If the destination pattern contains data, the copied data will erase and replace the previous pattern data.

22 : Clear Pattern

Completely clears all data from the specified section of the specified style.



The “**Style**” parameter specifies the style: “U01” ... “U64” and “All”.

The “**Section**” parameter specifies the section of the style to be cleared: “Intro”, “MainA”, “MainB”, “FillAB”, “FillBA”, “Ending” and “All”.

After setting the parameter as required press [ENTER] to execute the Clear Pattern job. The metronome icon will appear on the display while the data is being processed, then “Completed !” will appear briefly when the job is done. Press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode.

■ NOTE

- Clearing “All” styles can not be undone with the “Undo/Redo” job.

23 : Style Name

Allows an original name of up to 8 characters to be assigned to the current style.



To enter a character, use the cursor buttons to move the cursor to the character to be entered, then press the [ENTER] button. The character will appear at the character cursor location and the character cursor will advance to the next character position.

The character cursor can be moved by pressing the function button to the right of "⇐⇒".

To delete a character, press the function button to the right of "del". The character to the left of the cursor will be deleted and the cursor will move to the deleted character's position.

When the name has been entered press the [EXIT] button to return to the job list, or a mode button to go directly to the selected mode (it is not necessary to press the [ENTER] button to enter the specified name).

■ NOTE

- You can enter "name" not only for the user style but also for the preset style. If you want to store a newly entered "name" for the preset style, execute the "Copy Pattern" Job before changing the style number.
- Entering a style name can not be undone with the "Undo/Redo" job.

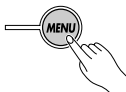
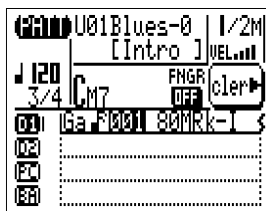
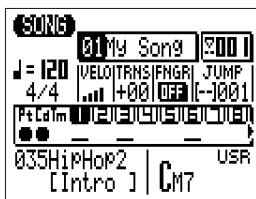
Editing Songs & Patterns

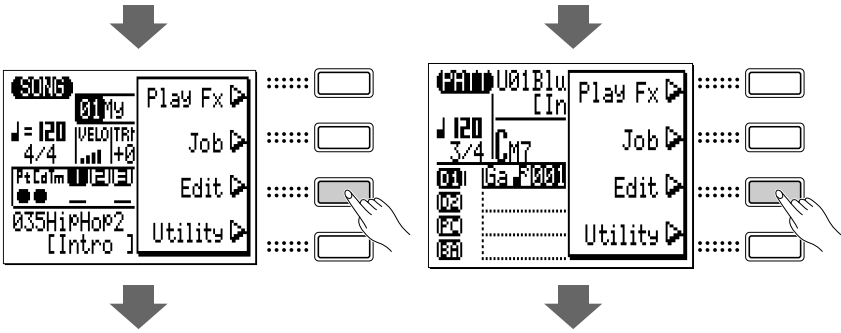
The QY100's editing capability makes it easy to correct mistakes made when recording song or pattern phrase data, and to generally refine your sound.

The song and pattern edit "change" mode lets you individually modify the timing, pitch, gate time (length) and velocity (loudness) of each note or other events in the song or pattern. There's also an edit "insert" that allows insertion of note, program change, sustain on/off, pitch bend, modulation, pan, volume, expression, and other events at any point in the song or pattern.

Engaging the SONG or PATTERN Edit Mode

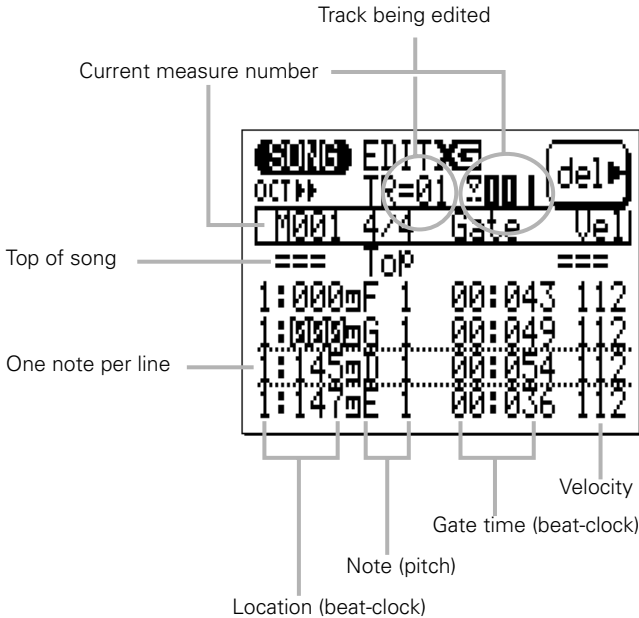
To engage the edit mode, place the cursor at the track you want to edit in the normal SONG or PATTERN mode, press the [MENU] button, and then the function button next to [Edit] on the display.





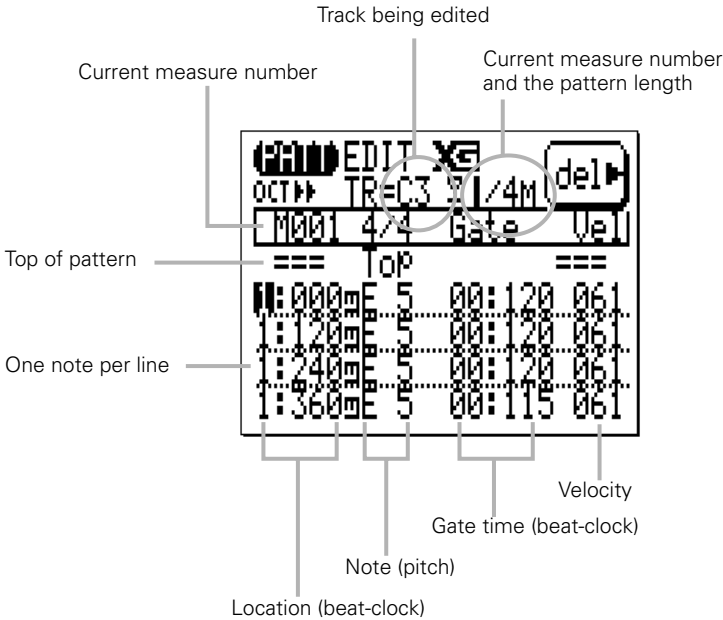
The edit display will look something like this (of course, the note data will be different).

Song Edit Display



The pattern edit display is almost exactly the same. The only differences are the name of the track being edited and the current measure display.

Pattern Edit Display

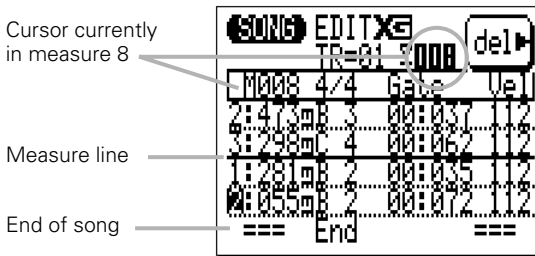


If you place the cursor at the "Pt" (pattern) or "Cd" (chord) track in the SONG mode and engage the edit mode, the edit display will be exactly the same as the step recording display described on page 84.

Moving Around

The location, pitch, gate time, and velocity values for each note are shown on a single line of the display. The notes are arranged in order from top to bottom. You can move around within the song or pattern by simply moving the cursor. Move below the bottom of the display and the note data will scroll down, moving towards the end of the song or pattern. The opposite occurs when you move up above the top of the display.

In addition to the lines of note data, there are markers for the top of the song/pattern and the end of the song/pattern. Measure lines are indicated by solid lines between lines of note data (non-measure boundaries between lines of data appear as dotted lines).



Change Mode Editing

The “Change” edit mode is initially selected when the edit mode is engaged. To edit any note or other event in the song or pattern, simply move the cursor to the appropriate line, and then to the required parameter within that line. The [-1] and [+1] buttons can then be used to select a new value for the selected parameter. The edited line will flash when any parameter within it is changed. This indicates that a change has been made but has not yet been entered. Press the [ENTER] button to actually enter the changes, or move the cursor to another line to cancel the changes.

The available parameters depend on the selected event type. The note event parameters are listed below. See “Insert Mode Editing” (page 221) for other event types.

4: 276	D 3	00: 178	112
└───┬───┘	└──┬──┘	└───┬───┘	└──┬──┘
Beat-clock	Pitch	Gate time	Velocity

Beat-clock

The first column contains the note location data. The left number is the beat within the current measure (1 through 4 in a 4/4 measure, for example.), and the right number is the clock within that beat (000 through 479 in case of 1/4-note beat). The beat and clock values can be selected and edited independently.

Pitch

This is the actual pitch of the note. The range is from C-2 to G8.

Gate Time

Gate time is the length of the note in beats and clocks. The number to the left of the colon is 1/4-beats and the number to the right is clocks within a 1/4-beat. A normal 1/4 note, for example, is 432 clocks long. This is about 90% of the actual length of a 1/4-note division, which is 480 clocks. The “normal” length of the note is slightly shortened to prevent notes from running into each other and sounding slurred (a slur is produced by setting the full note length). The beat-clock range is from 00:001 to 99:479.

Velocity

This parameter controls the velocity (loudness) of the note. The range is from 001 to 127.

Deleting Events

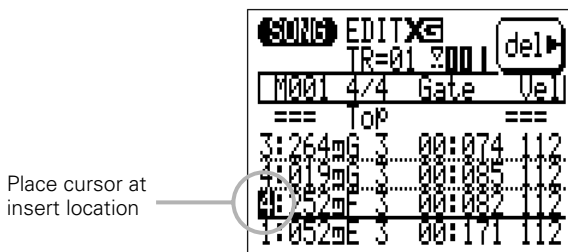
Notes and other events (sustain on/off, pitch bend, etc.) can be deleted by placing the cursor at the line corresponding to the event to be deleted, and then pressing the function button next to “del” on the display.

Insert Mode Editing

The edit insert mode is used to insert new notes and other events at a specified location in the song or pattern.

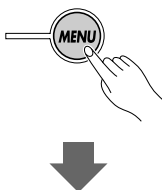
1 Place the cursor at the insert location.

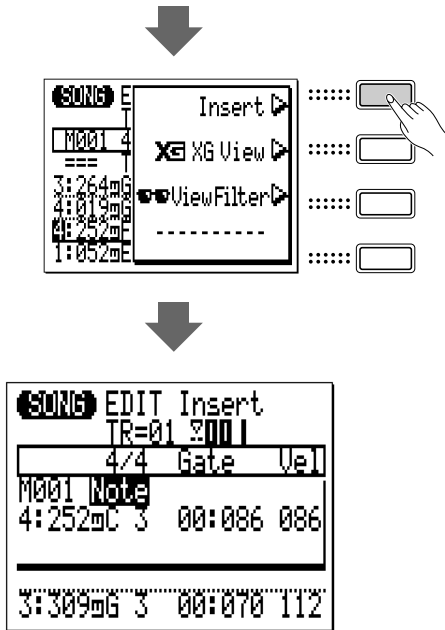
Move the cursor to the edit line corresponding to (or near to) the location at which you want to insert the new data.



2 Engage the insert edit mode.

Press the [MENU] button and then the function button next to “Insert” on the display to switch to the insert edit mode.





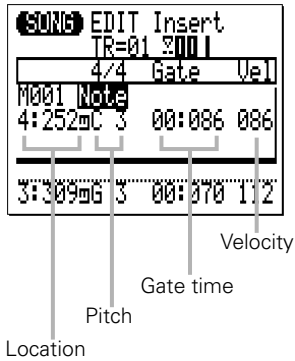
3 Select an Event Type to Insert, and Set the Event Parameters

If the display corresponding to the type of event you want to insert does not appear immediately, use the [-1] and [+1] buttons to select the desired event type.

All events have at least two parameters — usually the location of the event (Measure-Beat-Clock) and the event value. Move the cursor to the event parameters and set as required by using the [-1] and [+1] buttons or the SHIFT-Number entry method (page 34) where appropriate.

Note

New notes can be inserted at any specified location. The note range is from “C-2” to “G8”. Gate time and velocity can also be specified.



PB (Pitch Bend)

Pitch bend events can be used to produce pitch bend effects. The pitch bend values correspond to pitch bend wheel positions from “-8192” (lowest position) through “+0000” (center) to “+8191” (highest position). To produce smooth pitch bends you’ll need to insert several small pitch bend events at appropriate intervals. Remember to use more pitch bend events to return the pitch to normal after a bend.



PC (Program Change)

Program change events can be used to switch voices at any point in the track.

The Bank Select (MSB and LSB) parameters are used for bank selection when selecting XG voices. Refer to the XG Normal/Drum voice list in the Data List for details.

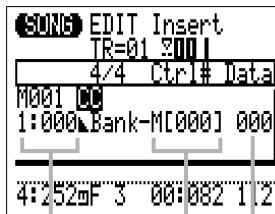


Location
Program change number
Voice name
Bank Select LSB
Bank Select MSB

Note that the program number in the XG Normal/Drum voice list (refer to the Data List) and the MIDI program change number is different: i.e., the program number for “Grand Piano” is “1” while its MIDI program change number is “0”. (Program numbers, which are defined in General MIDI, range 1 - 128, while MIDI program change numbers range 0 - 127.)

CC (Control Change)

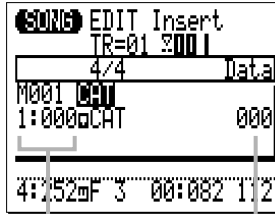
Any MIDI control change number from 000 through 127 can be entered with an appropriate control value where applicable. Control change numbers are used for modulation, volume, panning, expression and other control functions. Some control change numbers are assigned to specific functions and some are not. Refer to the “MIDI Data Format” section of the Data List for details.



Location
Control change number
Control change value

CAT (Channel Aftertouch)

Inserts a channel aftertouch message with the specified aftertouch value.



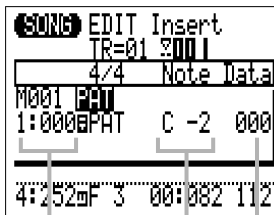
Location

Aftertouch value

PAT (Polyphonic Aftertouch)

Inserts a polyphonic aftertouch message for the specified note with the specified aftertouch value.

PAT aftertouch events affect a single specified note, as opposed to CAT aftertouch events which affect all notes on the same channel (track) simultaneously.



Location

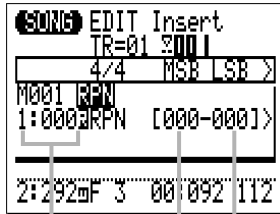
Note

Aftertouch value

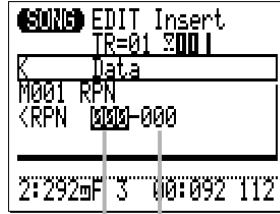


RPN

Inserts RPN data. RPN is an abbreviation for “Registered Parameter Number”, which is a MIDI message used to control part settings such as pitch bend sensitivity, tuning, etc. Refer to the “MIDI Data Format” section of the Data List for details.



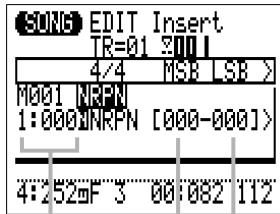
Location RPN MSB RPN LSB



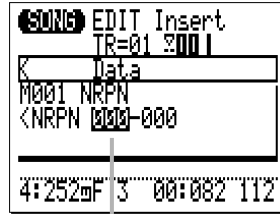
Data entry LSB Data entry MSB

NRPN

Inserts NRPN data. NRPN is an abbreviation for “Non Registered Parameter Number”, which is a MIDI message used to control voice settings such as vibrato, filter, envelope generator, drum setup, etc. Refer to the “MIDI Data Format” section of the Data List for details.



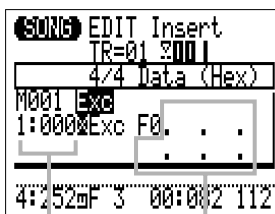
Location NRPN MSB NRPN LSB



Data entry MSB

Exc (Exclusive)

Inserts a System Exclusive message in hexadecimal format. Refer to the “MIDI Data Format” section of the Data List for details.



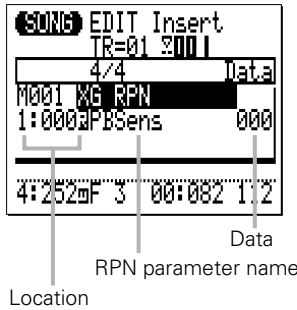
■ Hexadecimal Number Entry

Use the [SHIFT] and the micro-keyboard to enter hexadecimal values.

- Press a black key while holding the [SHIFT] button to enter the corresponding number.
- Press a white key in the left-hand section of the micro-keyboard (E - D except G) while holding the [SHIFT] button to enter the corresponding character, "A" through "F".
- After entering a hexadecimal value in one space, move the cursor to the next space and enter the next value.
- Remember to enter "F7" at the end of every exclusive message.

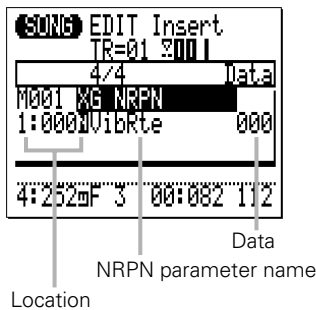
XG RPN

Inserts RPN (Registered Parameter Number) data using an XG parameter name ("RPN", above, needs to be entered using numbers). Refer to the "MIDI Data Format" section of the Data List for details.



XG NRPN

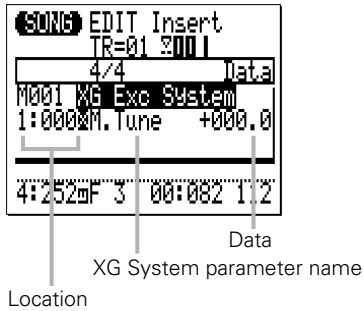
Inserts NRPN (Non Registered Parameter Number) data using an XG parameter name ("NRPN", above, needs to be entered using numbers). Refer to the "MIDI Data Format" section of the Data List for details.



- * "Note" appears if a drum setup parameter is selected to specify a drum instrument.

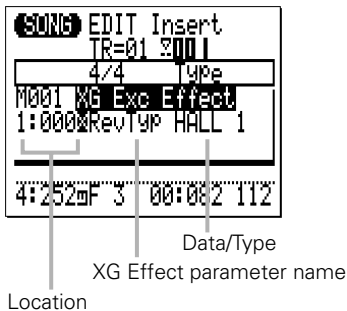
XG Exc System

Inserts a System Exclusive (XG System) message using an XG parameter name ("Exc", above, needs to be entered using hexadecimal values). Refer to the "MIDI Data Format" section of the Data List for details.



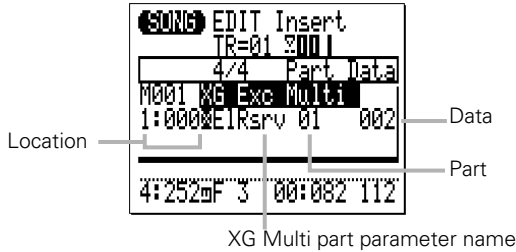
XG Exc Effect

Inserts a System Exclusive (XG Effect) message using an XG parameter name ("Exc", above, needs to be entered using hexadecimal values). Refer to the "MIDI Data Format" section of the Data List for details.



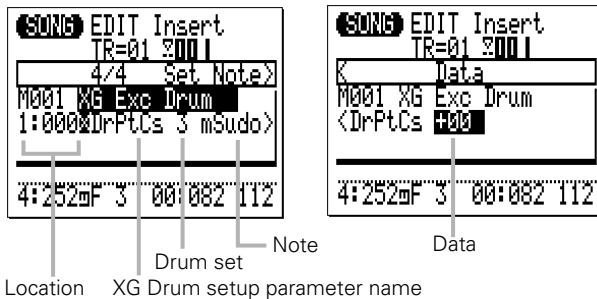
XG Exc Multi

Inserts a System Exclusive (XG Multi part) message using an XG parameter name ("Exc", above, needs to be entered using hexadecimal values). Refer to the "MIDI Data Format" section of the Data List for details.



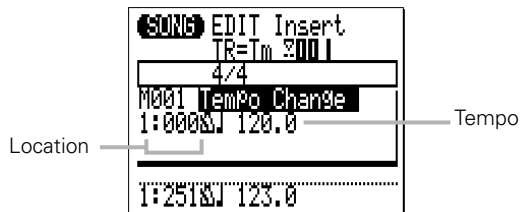
XG Exc Drum

Inserts a System Exclusive (XG Drum setup) message using an XG parameter name ("Exc", above, needs to be entered using hexadecimal values). Refer to the "MIDI Data Format" section of the Data List for details.



Tempo Change (Tempo track (Tm) only)

Inserts tempo change data with the specified tempo value (25.0 - 300.0).



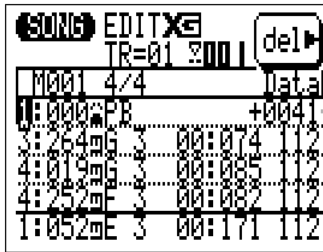
4 Enter the Specified Event

Press the [ENTER] button to enter the event as specified.



5 Return to the Change Edit Mode

Press the [EXIT] button to return to the change edit display, and continue editing as required.



Pitch bend event inserted. once inserted, you can edit the event's location and value in the change edit mode.

6 Exit From the Edit Mode

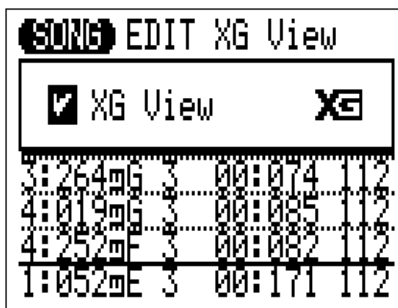
Press the [SONG] or [PATTERN] button to exit from the EDIT mode and return to the normal SONG or PATTERN play mode. The [EXIT] button will also return you to the SONG or PATTERN mode from the EDIT mode.

NOTE

- If you insert Control Change data other than Modulation (#1), Expression (#11), Harmonic Content (#71) and Brightness (#74) in the user pattern, these data will not be reset even if the pattern is changed, and will take effect on the newly selected pattern. To avoid this, remember to enter the value to reset at the end of the phrase when you insert these control change data.

XG View

The XG View function displays XG-related events (RPN, NRPN, System Exclusive, etc.) using the name defined by the XG format. To engage the XG View function press the [MENU] button while in the EDIT mode, then press the function button next to “XG View” on the display.

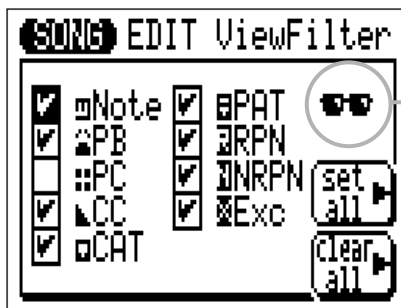


When the box to the left of “XG View” is checked, XG-related events will be displayed using the corresponding XG format name. If the box is not checked, XG-related events will be displayed as MSB/LSB values, or as hexadecimal numbers.

Press [+1] button to check the XG View box, or the [-1] button to uncheck the box.

View Filter

The View Filter lets you “filter out” specified types of events so that they don’t appear in the EDIT mode display. To access the View Filter press the [MENU] button while in the EDIT mode, then press the function button next to “View Filter” on the display



The “sunglasses” appear if any events are “unchecked”.

When the check box beside an event type is checked, that events will be displayed in the EDIT display. Event types that are not checked will not appear in the EDIT display.

To filter out a certain type of event, simply move the cursor to the corresponding check box and press the [-1] button to “uncheck” the box (or the [+1] button to check the box, as necessary).

The “Set All” function button checks all boxes at once, while the “Clear All” function button clears all check boxes.

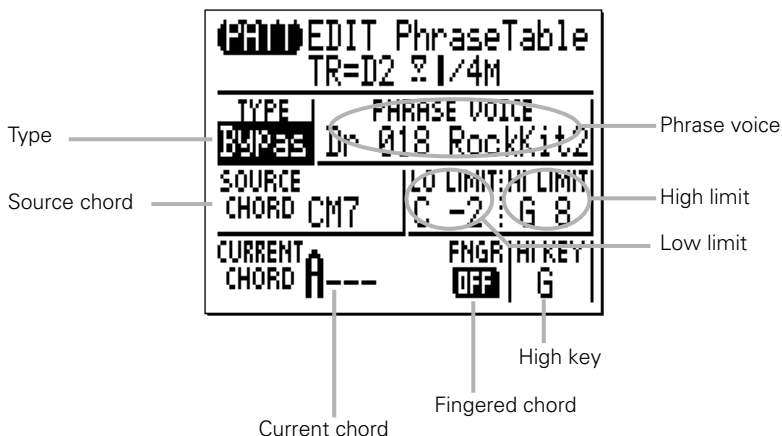
The View Filter Event Types

Abbreviation	Event Type
Note	Note
PB	Pitch Bend
PC	Program Change
CC	Control Change
CAT	Channel Aftertouch
PAT	Polyphonic Aftertouch
RPN	Registered Parameter Number
NRPN	Non Registered Parameter Number
Exc	System Exclusive

Phrase Table (Pattern Edit Only)

Phrase Table lets you edit phrase settings for the pattern track currently being edited.

To access the Phrase Table function press the [MENU] button while in the EDIT mode, then press the function button next to "Phrase Table" on the display.



To edit a Phrase Table parameter, move the cursor to the parameter and edit using the [-1] and [+1] buttons, the SHIFT-Number entry method, or the micro keyboard as necessary. Only the "CURRENT CHORD" and "FNGR" parameters can be edited for preset phrases.

TYPE

Selects the phrase (note transition) type: Chord 1, Chord 2, Bass, Bypass or Parallel. Refer to "The Phrase Types" on page 108 for information on the various phrase types.

PHRASE VOICE

Selects the voice to be used in the phrase. Refer to the XG Normal/Drum voice list in the Data List.

SOURCE CHORD

Sets the source chord for the phrase (i.e. the chord on which the phrase is based). Note that you can not enter an “on-bass” chord for the source chord.

LO LIMIT

HI LIMIT

Sets the note range over which the re-harmonized phrase will be played (C-2 through G8). If any re-harmonized phrase notes exceed the range set here, the notes will be automatically shifted up or down in octave steps so that they fall within the specified range.

CURRENT CHORD

Shows the currently selected chord for the PATTERN play mode. The current chord can be changed here.

FNGR (Fingered Chord)

Shows the current Fingered Chord setting, ON or OFF. The ON/OFF setting can be changed here.

HI KEY

Selects the highest root (C through B) in case the phrase (note transition) type is either Chord 1 or Bass.



Effects & Effect Editing

The QY100 features a versatile internal effects system which consists of three independent effect stages: REVERB, CHORUS, and VARIATION. Of these the REVERB and CHORUS stages function as “system effects”, and the VARIATION stage can be used either as a system or “insertion” effect. See the signal-flow diagrams on page 238 for the difference between “system” and “insertion” effects.

Accessing & Editing the Effect Parameters

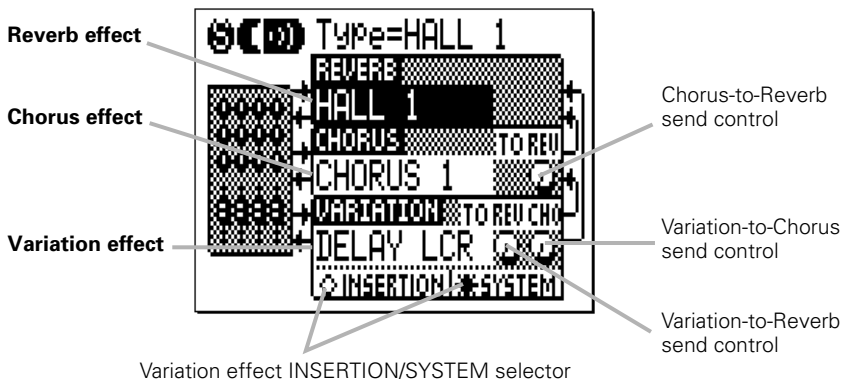
The EFFECT connection display and the effect edit displays can be accessed from the SONG or PATTERN mode as follows:

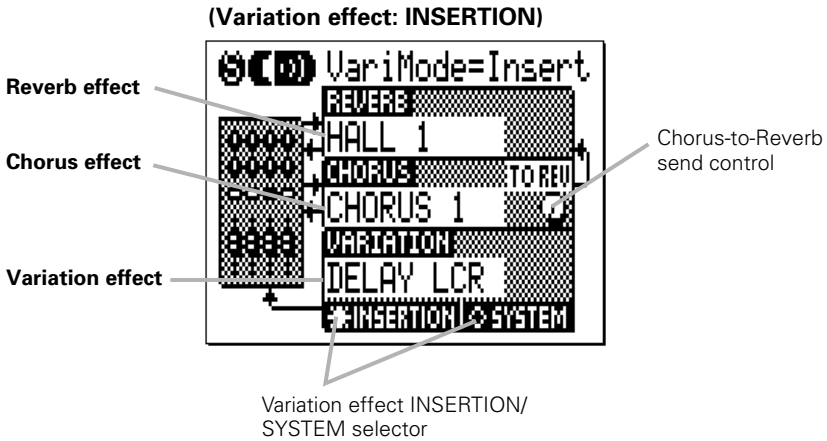
1 Select the Effect Connection Display

Press the [SONG] or [PATTERN] button as many times as necessary until the SONG or PATTERN effect connection display appears.

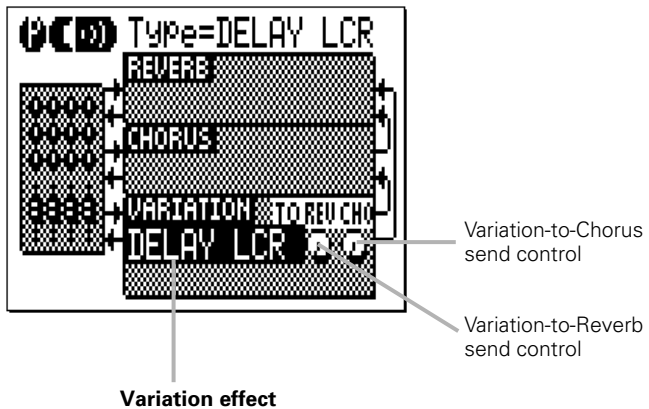
Song Mode Effect Connection Display

(Variation effect: SYSTEM)





Pattern Mode Effect Connection Display



Note that in the PATTERN mode effect connection display only the variation stage has accessible controls. The reverb type for the PATTERN mode effect is always "HALL 1" and the chorus type is always "CHORUS 1".

2 Set the Effect Parameters As Required

Move the cursor to the desired parameter and use the [-1] and [+1] buttons to set the selected parameter as required. The REVERB, CHORUS, and VARIATION effect parameters let you select any of the available effect types for each stage.

The VARIATION stage INSERTION/SYSTEM selector determines whether the VARIATION stage functions as an insertion effect or system effect. Refer to the “Effect Signal Flow” diagrams and text, below. (In the PATTERN mode effect connection display, the VARIATION stage is always used as a system effect that applies to all 8 tracks for the pattern)

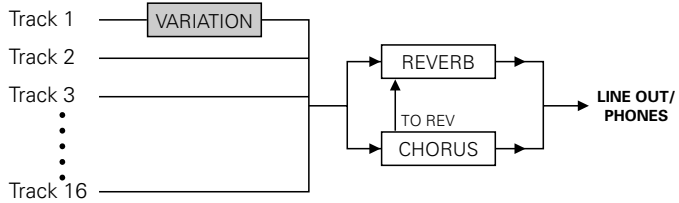
Effect Signal Flow

The following diagrams should help you to understand how the QY100 effect stages relate to overall signal flow.

The signal from each part (track) of the tone generator is sent to the reverb, chorus and variation stages. The reverb and chorus effects are always connected as “System” effects, which means that they affect all parts (tracks). The effect depth for each track can be varied via the “REVERB” and “CHORUS” send controls in the EFFECT SEND display (page 136). The chorus stage “TO REV” parameter can be used to send some or all of the output from the chorus stage to the reverb stage.

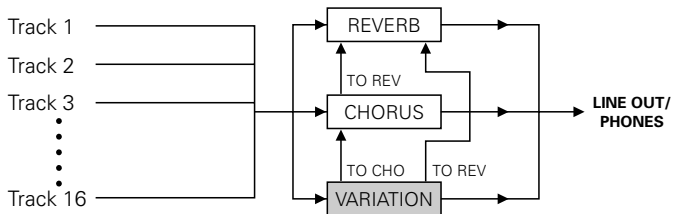
The variation effect can be applied either to one specific part (track) when it is connected as an “Insertion” effect, or all parts (tracks) when it is connected as a “System” effect.

● When the Variation Stage is an Insertion Effect



In this case the variation effect is applied to one specific part (track) with “Dry/Wet” mixing capability available in “Vari. Edit” (See “Effect Editing” on page 240). The track to which the variation effect is to be applied can be selected via the EFFECT SEND display (page 136).

● When the Variation Stage is a System Effect



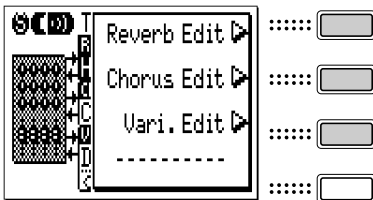
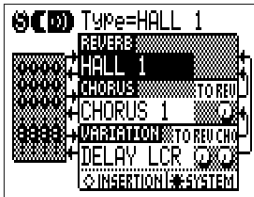
In this case the variation effect is applied to all parts (tracks). The variation stage “TO REV” and “TO CHO” parameters can be used to send some or all of the output from the variation stage to the reverb and chorus stages. Variation send level and “Dry/Wet” mixing for each track can be varied via the controls in the EFFECT SEND display (page 136).

Effect Editing

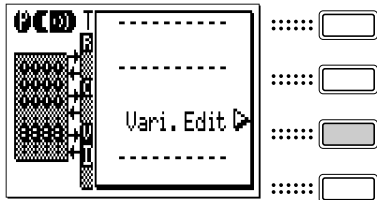
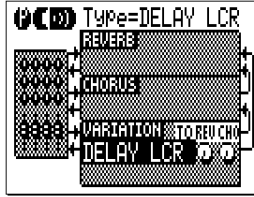
The Reverb Edit, Chorus Edit, and Variation Edit displays can be accessed from the Effect Connection display by pressing the [MENU] button and then the function button next to "Reverb Edit", "Chorus Edit", or "Vari. Edit" on the display. Note that only "Vari. Edit" is available from the PATTERN mode Effect Connection display.

Use the "Type" parameter near the top of the display to select the effect type for the current effect stage (REVERB, CHORUS, or VARIATION). Each effect will have different parameters which will appear in the lower section of the display. Move the cursor to the various parameters and set as required via the [-1] and [+1] buttons. Refer to the "Effect Type List" and the "Effect Parameter List" (refer to the Data List) for a complete list of the parameters available for each effect and their ranges.

Song Mode Effect Connection Display



Pattern Mode Effect Connection Display





Reverb Edit Display

REVERB EDIT	
Type	HALL 1
Reverbtime	2.1s
Diffusion	10
InitDelay	08
HPF Cutoff	90Hz
LPF Cutoff	5.6kHz



Chorus Edit Display

CHORUS EDIT	
Type	CHORUS 1
LFO Freq	0.25Hz
LFO PM Dpt	054
FB Level	+13
Delay Ofst	106



Variation Edit Display

VARIATION EDIT	
Type	DELAY LCR
Lch Delay	396.1ms
Rch Delay	247.8ms
Cch Delay	715.0ms
FB Delay	500.0ms
FB Level	+36

■ NOTE

- These effect displays can be used to edit not all the parameters but the main parameters given for each effect type. (Refer to the "Effect Parameter List" in the Data List.) To edit the effect in detail, send the appropriate system exclusive message to the QY100's tone generator section.

How the Variation Effect works in the SONG mode

Please, remember that the variation effect settings in the SONG effect connection and edit display become ineffective if a song containing "Pt"(pattern track) data is played. In this case, the variation effect settings for the pattern used in the song (which is set in the PATTERN effect connection and edit display) will be used.

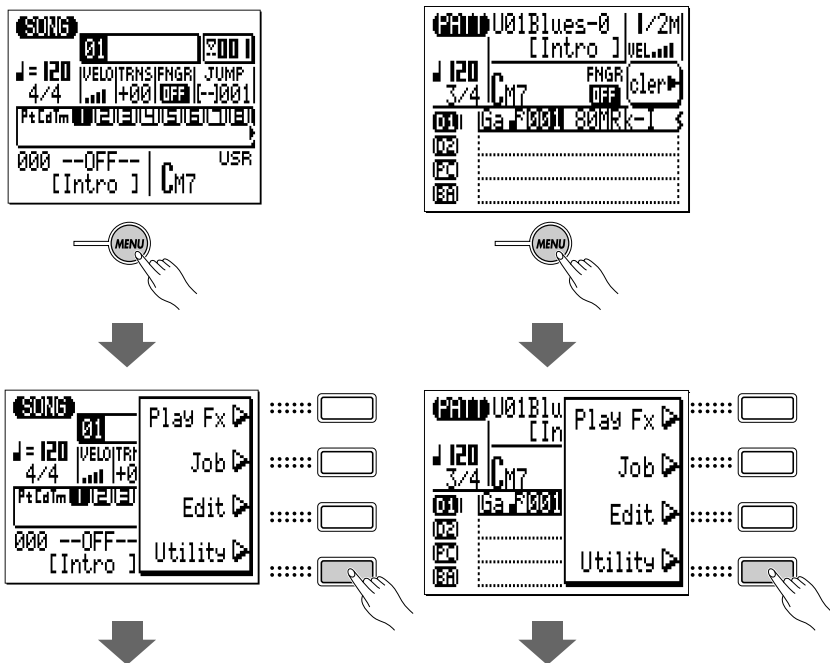
To use the variation effect settings in the SONG effect connection and edit display, play a song consisting of only sequencer track (1...16) data. It's sometimes useful to execute Expand Backing job on page 176 to "expand" pattern track data to the sequencer tracks.

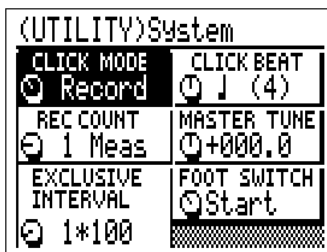
Utility Functions

The QY100 utility mode includes a number of functions that are important for general operation — e.g. MIDI data handling, interfacing with external equipment, saving song and pattern data to an external storage device, ABC system operation, etc.

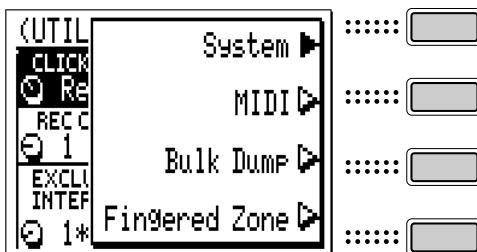
Accessing the Utility Mode

The utility mode can be accessed from the SONG or PATTERN mode. Simply press the [MENU] button and then the function button next to “Utility” on the display.





Once the utility mode has been selected, any of the four utility displays can be called by pressing the [MENU] button and then the appropriate function button, as shown below.



NOTE

- When the utility mode is first engaged from the SONG or PATTERN mode, the last utility display selected will initially appear.

System Parameters

The “System” display includes 6 parameters that affect the basic operation of the QY100. Move the cursor to the parameter to be adjusted and set as required by using the [-1] and [+1] buttons.

(UTILITY)System	
CLICK MODE ⊙ Record	CLICK BEAT ⊙ J (4)
REC COUNT ⊙ 1 Meas	MASTER TUNE ⊙ +000.0
EXCLUSIVE INTERVAL ⊙ 1*100	FOOT SWITCH ⊙ Start

CLICK MODE

Settings: Off, Record, Rec/Play, Always

Determines when the QY100 metronome will sound. Normally the QY100 metronome sounds only during realtime recording — the “Record” setting. With this parameter, however, you can turn the metronome “Off” so that it never sounds, set it to “Rec/Play” so that it sounds during recording and playback, or set it to “Always” so that the metronome sounds at all times.

CLICK BEAT

Settings: 16, 8, 4, 2, 1

Determines on what beats the QY100 metronome will sound. The normal setting is “4”, causing the metronome to sound on every quarter-note beat. The metronome can also be set to sound on every 16th, 8th, 1/2, or whole-note beat.

REC COUNT**Settings: OFF, 1 Meas ... 8 Meas**

This parameter sets the number of count-in measure provided before realtime recording begins in the SONG and PATTERN modes. The default setting is "1".

MASTER TUNE**Settings: -102.4 ... +000.0 ... +102.3**

Tunes the overall pitch of the QY100 sound. The Master Tune range is from "-102.4" through "+000" to "+102.3". Each increment corresponds to approximately 1 cent (a cent is 1/100th of a semitone). A setting of "+000" produces normal pitch: A4 = 440 Hz.

EXCLUSIVE INTERVAL**Settings: 0*100 ... 9*100**

This parameter sets the delay time between exclusive data blocks between 0 and 900 milliseconds in 100-millisecond increments. This type of delay is sometimes necessary to allow smooth playback of song data which includes large system exclusive messages.

FOOT SWITCH**Settings: Start, Section, AmpSim**

Specifies the function of an optional footswitch (Yamaha FC-4 or FC-5) connected to the rear-panel FOOT SW jack.

Start	<p>When "Start" is selected the footswitch starts and stops song or pattern playback.</p> <p>During SONG playback, the footswitch stops (pauses) playback at the point at which it is pressed. The when it is pressed again playback resumes from the point at which it was stopped.</p> <p>During PATTERN playback, pressing the footswitch stops playback and locates to the top of the pattern. The next time the footswitch is pressed playback will begin from the top of the pattern.</p>
--------------	---

Section The footswitch switches sections during song or pattern playback.

When the footswitch is pressed during SONG playback, playback will jump to the next programmed section change after playback of the current measure has finished. If the footswitch is pressed while the ENDING section is playing, playback will jump back to and continue from the INTRO section. And if the footswitch is pressed while a BLANK section is playing, playback will jump to the section immediately following the INTRO section.

If the footswitch is pressed during PATTERN playback, playback will jump the next section according to the sequence listed below when playback of the current measure has finished.

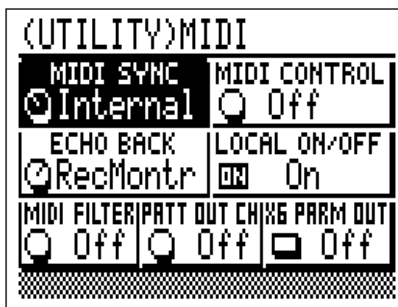
INTRO → MAIN A → FILL AB → MAIN B → FILL BA →
ENDING → INTRO ...

If the footswitch is pressed while a BLANK section is playing, the MAIN A section will be selected next.

AmpSim The footswitch alternately turns all Amp Simulator blocks, or the single block specified by the Amp Simulator “On/Off” parameter (pages 44 and 52) , on and off.

MIDI Parameters

The parameters in the “MIDI” display all relate to MIDI control.



MIDI SYNC

Settings: Internal, External

When this parameter is set to “Internal” the QY100 is controlled by its own internal clock. When set to “External” the QY100 is controlled by a MIDI clock signal received from an external device such as a sequencer or music computer (i.e., playback of the QY100 is synchronized to that of an external sequencer or other device).

Please note that the QY100 will not run on its own when this parameter is set to “External”. The QY100 can also control playback of an external MIDI sequencer when this parameter is set to “Internal”.

MIDI CONTROL

Settings: Off, In, Out, In/Out

This parameter simply turns MIDI control of the QY100 (i.e., synchronized playback) on or off. When set to “Off” the QY100 will not respond to external MIDI control. The “In” setting (MIDI input only) allows control of the QY100 from an external MIDI device, the “Out” setting (MIDI output only) allows the QY100 to control an external MIDI device, and the “In/Out” setting (MIDI input and output) allows the QY100 to both be controlled by and control an external MIDI device.

ECHO BACK**Settings: Off, Thru, RecMontr**

Determines whether MIDI data received via the MIDI IN connector is simultaneously re-transmitted (“echoed back”) via the MIDI OUT connector. When this parameter is set to “Off” no echo back occurs. When set to “Thru” the received MIDI data is re-transmitted without modification. When “RecMontr” (Record Monitor) is selected, the received data is re-transmitted on the MIDI channel corresponding to the currently selected record track, and the data is affected by the MIDI FILTER settings described below.

LOCAL ON/OFF**Settings: Off, On**

Determines whether or not the QY100’s internal tone generator will be controlled by its own micro-keyboard. When LOCAL ON/OFF is “On”, the micro-keyboard controls the internal tone generator. When “Off” the micro-keyboard does not control the internal tone generator and will produce no sound.

MIDI FILTER**Settings: Off, PB, CC, AT, Exc**

The MIDI FILTER specifies a type of event which will not be received via MIDI during sequence recording. The settings are as follows:

Off	All events are received.
PB	Pitch bend events will not be received.
CC	Control Change events will not be received.
AT	Channel and polyphonic aftertouch events will not be received.
Exc	System exclusive data will not be received.

PATT OUT CH**Settings: Off, 1~8, 9~16**

This parameter specifies the MIDI channels on which QY100 pattern playback data will be transmitted. When "Off" pattern playback data is not transmitted. When set to "1~8" pattern playback data is transmitted on MIDI channels 1 through 8, and when set to "9~16" pattern playback data is transmitted on MIDI channels 9 through 16.

D1	ch 1 or 9
D2	ch 2 or 10
PC	ch 3 or 11
BA	ch 4 or 12
C1	ch 5 or 13
C2	ch 6 or 14
C3	ch 7 or 15
C4	ch 8 or 16

XG PARM OUT**Settings: Off, On**

Determines whether the XG voice and effect parameters will be transmitted whenever the corresponding parameter values are changed or a new song or pattern is selected. When "Off" no XG parameters are transmitted. The appropriate XG parameters are transmitted to a connected XG tone generator when this parameter is turned "On".

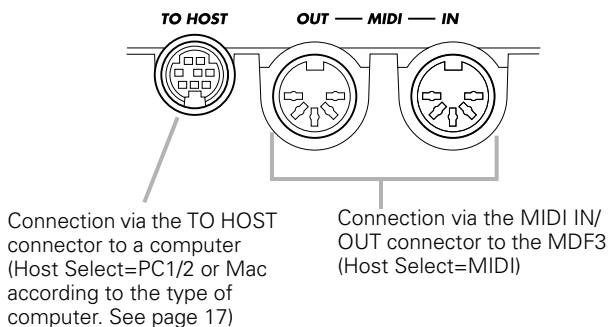


Bulk Dump

Although the QY100 has memory for 20 songs, 64 user styles and 23 amp simulator setups you might want to save your song and pattern data to an external MIDI data recorder, computer, or similar device to allow greater storage capacity or simply to protect your data from accidental erasure or corruption.

Be sure to properly connect the QY100 to a MIDI data recorder (such as the Yamaha MDF3 MIDI Data Filer) or a computer and set the HOST SELECT switch to the appropriate position before executing the Bulk Dump transmission/reception.

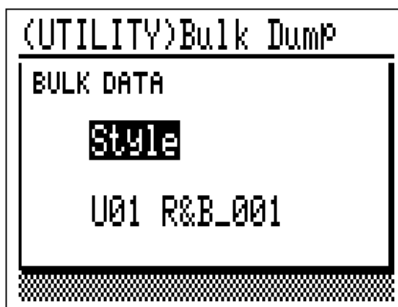
Also refer to the owner's manual of the connected device to see how to receive/transmit bulk data from/to the QY100.



■ NOTE

- Depending on the type of equipment or sequence software used, bulk data transmitted to the QY100 may not be properly recognized. To ensure reliable data transfer we recommend that you use the supplied "QY100 Data Filer" application for bulk data transmission and reception.

To transmit (dump) song and/or pattern data to an external device, first select the UTILITY Bulk Dump mode.



Move the cursor to the upper parameter and use the [-1] and [+1] buttons to select "Song" if you want to save the data for one song or all songs, "Style" if you want to save the data for one style or all styles, or "All" if you want to save all songs, styles, and system setup data including all amp simulator setups.

If you select "Song", move the cursor to the song number parameter and select a song number (01 ... 20), or "All" to save all songs.

If you select "Style", move the cursor to the style number parameter and select a style number (U01 ... U64), or "All" to save all styles. Remember all 6 variation patterns(Intro, Main A/B, Fill AB/BA and Ending) included in one style will be saved at one time.

When the parameters have been set as required, press [ENTER]. "Are You Sure?" will appear on the display. Press [+1/YES] to go ahead with the bulk dump operation, or [-1/NO] to cancel. "Completed !" will appear when the transmission is finished.

● Bulk Reception of Song & Pattern Data

If no other operation is currently in progress (recording, for example) the QY100 will automatically receive bulk song and pattern data transmitted from a compatible external device. If you are using the QY100's MIDI connectors rather than the TO HOST connector, make sure that the MIDI OUT of the external device is connected to the MIDI IN of the QY100.

Select the QY100 SONG play mode when receiving one or all song bulk data, and select the PATTERN play mode when receiving one or all style bulk data. "All" data, including all songs, styles and system setup

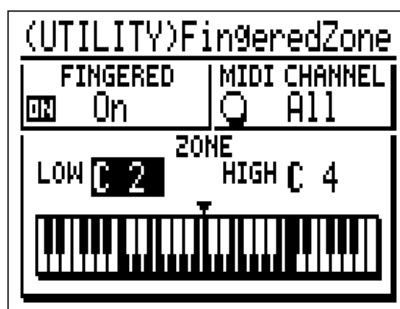
data, can be received in either the SONG or PATTERN play mode. Remember that one or all song/style data currently in the QY100's memory will be overwritten when one or all song/style bulk data is received. All data in the QY100's memory will be overwritten when "All" data is received.

■ NOTE

- See the QY100 Data Filer's installation guide if you use the QY100 Data Filer for bulk dump reception/transmission.

Fingered Zone

The QY100's advanced ABC system can be controlled from the QY100 micro-keyboard or an external keyboard. The Fingered Zone utility function sets the range of notes in which chords played will be recognized by the QY100 ABC system.



Use the "FINGERED" parameter to turn the QY100's Fingered Chord function for the ABC system "On" or "Off" as required. When it is turned to "ON", the ABC system can be controlled by playing a chord as it is on an external keyboard or the micro keyboard. When turned to "OFF", the ABC system is controlled by specifying the chord root and type from the micro keyboard rather than playing the chord as it is. The MIDI CHANNEL and the "LOW"/"HIGH" parameters explained below will be ineffective when turned to "OFF".

The MIDI CHANNEL parameter specifies the MIDI channel via which the chord data will be received from an external MIDI keyboard: set to "All" for all channels, or specify a single MIDI channel from "01" to "16".

The "LOW" and "HIGH" parameters above the graphic keyboard display set the Fingered Chord function range. The maximum range is from C-2 to G8 (the "HIGH" parameter cannot be set lower than the "LOW" parameter). The specified range is indicated by the highlighted (inverse) section on the graphic keyboard display. When the "FINGERED" parameter in this display and the "FNDR" parameter in the SONG or PATTERN mode display are turned "On", chords played within the specified Fingered Chord function range will be recognized by the ABC system and the accompaniment chord will change accordingly during song, pattern playback or chord-track recording. Chords played within the specified range of either the QY100 micro-keyboard or an external MIDI keyboard are recognized. A chart of the chords recognized by the QY100 is provided on the Data List.

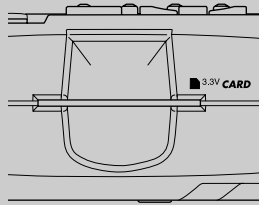
If you play a note lower than the specified "LOW" note while holding a chord, it will be recognized as a bass note for the on-bass chord.

■ **NOTE**

- *When the Fingered Chord function is "on", notes played lower than the specified "HIGH" note will not sound.*

Memory Card Functions

The QY100 CARD slot and CARD mode allow you to use standard SmartMedia™ memory cards — available at many electronics and computer stores — to conveniently save and load data as required.



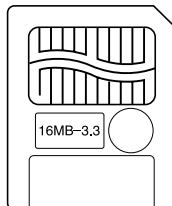
About SmartMedia™* Memory Cards

Memory cards must be handled with care to prevent possible damage and/or data corruption. Please read the important information and precautions below.

* SmartMedia is a trademark of Toshiba Corporation.



Insert this way



Compatible Memory Cards

The QY100 uses 3.3V (3V) SmartMedia memory cards. 5V memory cards cannot be used.

Memory Card Capacity

SmartMedia memory cards with any of the following capacities can be used: 2MB, 4MB, 8MB, 16MB and 32MB. Memory cards with higher capacities can be used as long as they conform to SSFDC* Forum specifications.

* SSFDC stands for "Solid State Floppy Disk Card", the alternate name for SmartMedia cards. The SSFDC Forum is an organization which develops and defines the standards for these memory cards.

Inserting and Removing Memory Cards

■ NOTE

- *It is recommended to insert and remove memory cards in some displays other than CARD mode.*

● To Insert a Memory Card

Carefully insert the card as far as it will go into the CARD slot (without using excessive force) with the gold connectors on the card facing upward (i.e. toward the top panel of the QY100). The connector end of the card goes into the slot.

Do not attempt to insert the card the wrong way around (upside-down or back-to-front), and make sure that dirt or other objects don't get into the CARD slot.

● To Remove a Memory Card

The memory card can be removed from the unit simply by gripping the protruding edge and pulling firmly outward. However, DO NOT remove a memory card while any card access operation is in progress: save, format, delete, or load!! Also note that the QY100 will automatically access the memory card whenever a card is inserted while the power is turned on in order to determine the card's type.

⚠ CAUTION

- *Never remove the memory card or turn the QY100 power off while a card-access operation is in progress! Doing so can damage the card itself and/or corrupt the data on the card as well as the data in the unit itself.*

Format New Memory Cards Before Use!

Before a new memory card (or a memory card that has been used with a different device) can be used with the QY100, it must be formatted by the QY100 (see the “Format” function, page 268). Formatting a memory card erases all data on the card, so be sure that the card you are going to format does not contain any important data that you want to keep.

■ NOTE

- *Memory cards formatted by the QY100 may be unusable with other instruments or devices.*

Handling Precautions

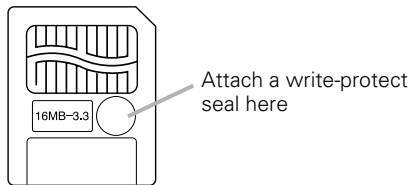
- Memory cards can be damaged and the data they contain corrupted by static electricity. Particularly in dry weather when static electricity buildup can be a problem, it is advisable to touch a metal object such as a doorknob or aluminum window frame in order to discharge your body before handling a memory card.
- If you won't be using a memory card for a long period of time, remove it from the CARD slot and store it in its protective pouch in a clean, dry place.
- Keep memory cards out of direct sunlight, away from high temperatures (e.g. car interiors or heating appliances) as well as excessively low temperatures, and avoid high humidity, excessive dust, and contact with liquids.
- Do not place heavy objects on a memory card, apply excessive pressure, or bend the card in any way.

- Avoid directly touching the card's electrical contacts (the gold section in the card's upper surface), and do not allow metal objects to come into contact with the card's contacts.
- Keep memory cards away from strong magnetic fields such as those produced by loudspeakers and television receivers.
- Do not attach anything but the approved labels to memory cards, and make sure that labels are attached in the proper spaces provided.

Write-Protecting Memory Cards

To prevent accidental erasure of important data, memory cards can be write-protected by attaching the supplied write-protect seal to the circular area just below the card's contacts (see illustration below).

To save data to a memory card that has been write protected, you will have to remove the write-protect seal (the seal cannot be re-used once it has been removed — use a fresh seal if you want to write-protect the card again).



Back Up Your Data

For maximum data security it is a good idea to keep two copies of important data on separate memory cards. Keep one card in a safe place as a backup in case the other is lost or damaged.

(page 34)

Save

The Save function allows you to save all QY100 data or specified individual data files to a memory card.

1 Make Sure a Memory Card Is In the CARD Slot

Make sure that a compatible memory card which has not been write-protected is properly inserted in the QY100 CARD slot (page 13).

2 Select the Appropriate Mode

To save song data the SONG mode must be selected. To save user style data the PATTERN mode must be selected.

3 Select the CARD Mode

Press the [CARD] button to select the QY100 CARD mode, while song and style data is not running.

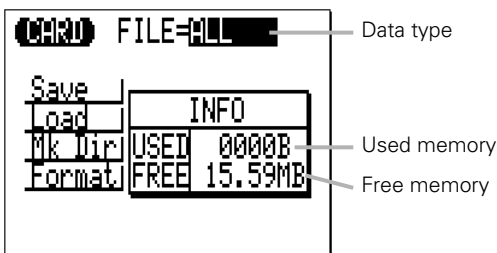


■ NOTE

- If you insert a memory card that has not been formatted by the QY100, the "Format? Yes/No" message will appear on the display. Press the [+1/YES] button to format the card for use with the QY100, or the [-1/NO] button to cancel the format operation.

4 Select the Type of Data to be Saved

Move the cursor to the "FILE=" parameter at the top of the initial CARD mode display, and use the [+1/YES] and [-1/NO] buttons to select the type of data you want to save:



ALL	All user styles, all songs, all amp simulators settings, and all system data.
SONG	Saves the data for a single selected song. (only SONG mode)
STYLE	Saves the data for a single selected user style. (only PATTERN mode)
SMF	Saves the data for a single selected song in SMF (Standard MIDI File) format. (only SONG mode)
SMF+XG	Adds the required XG data to the header of a single selected song and saves the song in SMF (Standard MIDI File) format. (only SONG mode)

5 Select the “Save” Function

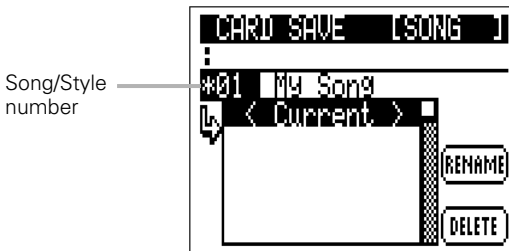
Move the cursor to “Save” on the display and press the [ENTER] button.



6 Select a Song or Style Number (If Necessary)

If you selected any save option other than “ALL”, use the [+1/YES] and [-1/NO] buttons to select the number of the song or user style you want to save.


If you select <Current>, the song or user style is saved in the current directory. If you select an existing file, the file can be overwritten.



■ **NOTE**

- Preset styles cannot be saved.
- If the selected Song or Style number already contains data, an asterisk (*) will appear before the number.
- You can always go back to the previous display by pressing the [EXIT] button.

7 Enter a Song or Style Name and Save the File

The name-entry display will automatically be selected when you press the [ENTER] button after selecting a song or style number to save (or after simply pressing the [ENTER] button if you chose the "ALL" option). Enter a file name for the song or style to be saved. The function button next to  moves the cursor forward one character, and the function button next to "del" deletes the current character. When the file name has been entered as required, press the function button next to "ok" to begin actual execution of the save operation.

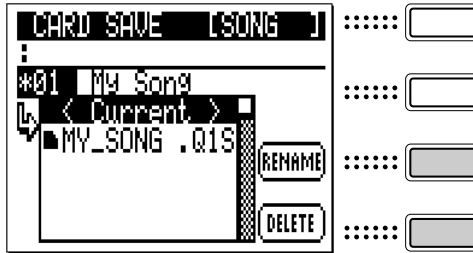


■ **NOTE**

- If you do not enter a file name before pressing the function (ok) button, the "No Name" message will appear and the data will not be saved. Be sure to enter a valid file name before pressing the function (ok) button.

8 Done

When the save operation has finished the memory card file list will appear.



RENAME

To rename a file on the list, select (move the cursor to) the file and press the function button next to “RENAME” to go to the name-entry display.

DELETE

To delete a file from the list first select (move the cursor to) the file and press the function button next to “DELETE”. When the “Are You Sure?” confirmation display appears, press [+1/YES] button to actually delete the selected file, or the [-1/NO] button to cancel the delete operation.



Load

Data files previously saved to a memory card can be reloaded into the QY100 by using the Load function.

1 Make Sure a Memory Card Is In the CARD Slot

Make sure that a compatible memory card containing the data you want to load is properly inserted in the QY100 CARD slot (page 13).

2 Select the Appropriate Mode

To load song data the SONG mode must be selected. To load user style data the PATTERN mode must be selected.

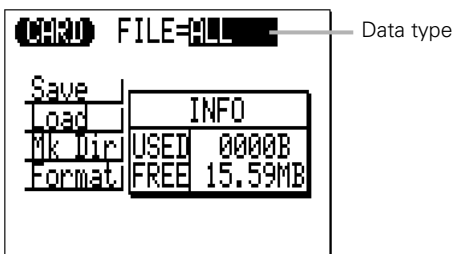
3 Select the CARD Mode

Press the [CARD] button to select the QY100 CARD mode, while song and style data is not running.



4 Select the Type of Data to be Loaded

Move the cursor to the "FILE=" parameter at the top of the initial CARD mode display, and use the [+1/YES] and [-1/NO] buttons to select the type of data you want to load:



ALL	Loads a file saved using the save "ALL" data option: all user styles, all songs, all amp simulators settings, and all system data.
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SONG	Loads the data for a single song. (only SONG mode)
STYLE	Loads the data for a single user style. (only PATTERN mode)
SMF, SMF+XG (same function)	Loads a file saved using the SMF or SMF+XG data options: a single song in SMF (Standard MIDI File) format, or a single song in SMF format with XG header information. (only SONG mode)

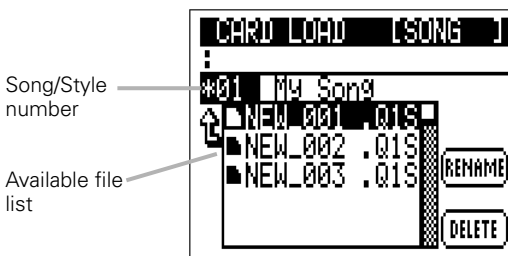
5 Select the “Load” Function

Move the cursor to “Load” on the display and press the [ENTER] button.



6 Select a Song or Style Number (If Necessary)

If you selected any load option other than “ALL”, use the [+1/YES] and [-1/NO] buttons to select the number of the song or user style to which you want to load the data.



NOTE

- If the selected SONG or STYLE number already contains data, an asterisk (*) will appear before the number.
- If you select a preset style, the “Select UserStyle” error message will appear. User style data can only be loaded to user styles.

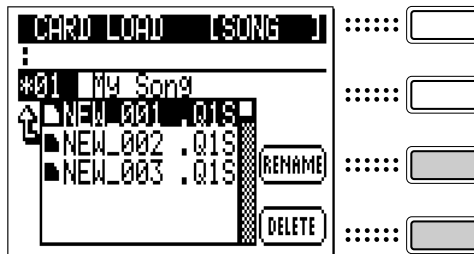
7 Select a Song or Style Name and Load the File

From the memory card file list which appears (the list will only show files of the type selected in step 4, above), select (move the cursor to) the file you want to load and press the [ENTER] button.

If you selected a song or user style which already contains data as the load destination in step 6, above, the "Are You Sure?" confirmation display will appear. Press the [+1/YES] button to load the selected file to the specified song or user style, or press the [-1/NO] button to cancel the load operation.

8 Done

When the load operation has finished the memory card file list will appear.



RENAME

To rename a file on the list, select (move the cursor to) the file and press the function button next to "RENAME" to go to the name-entry display.

DELETE

To delete a file from the list first select (move the cursor to) the file and press the function button next to "DELETE". When the "Are You Sure?" confirmation display appears, press [+1/YES] button to actually delete the selected file, or the [-1/NO] button to cancel the delete operation.

Mk Dir (Make Directory)

This function allows you to create and name separate “directories” in which to organize your files.

1 Make Sure a Memory Card Is In the CARD Slot

Make sure that a compatible memory card which is not write-protected is properly inserted in the QY100 CARD slot (page 13).

2 Select the CARD Mode

Press the [CARD] button to select the QY100 CARD mode, while song and style data is not running.



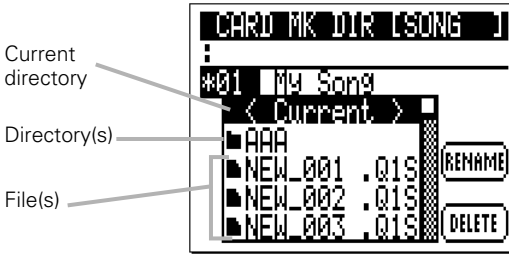
3 Select the “Mk Dir” Function

Move the cursor to “Mk Dir” on the display and press the [ENTER] button.



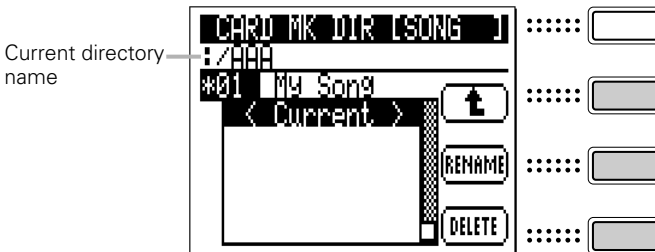
4 Select a Level for the New Directory

A file list will appear with the name of the topmost directory at the top of the list, the names of other directories and files if available. Select the level at which you want to create a new directory (below). Press the [ENTER] button after moving the cursor to <Current>.




To Move to a Lower Directory

Move the cursor to a directory name and press the [ENTER] button to enter that directory. In the new file list which appears, the current directory name (path) will appear at the top of the list.



To Move to A Higher Directory

To move up to the next highest directory press the function button next to .

To Rename a Directory


To rename a directory on the list, select (move the cursor to) the directory and press the function button next to "RENAME" to go to the name-entry display.

To Delete a Directory

To delete a directory from the list first select (move the cursor to) the directory and press the function button next to "DELETE". When the "Are You Sure?" confirmation display appears, press [+1/YES] button to actually delete the selected

file, or the [-1/NO] button to cancel the delete operation. Please note that a directory must be empty (i.e. it must contain no files) before it can be deleted.

5 Enter a Directory Name and Create the Directory

The name-entry display will automatically be selected when you press the [ENTER] button after selecting a level for the new directory. Enter a directory name. The function button next to  moves the cursor forward one character, and the function button next to "del" deletes the current character. When the file name has been entered as required, press the function button next to "ok" to begin actual execution of the Make Directory operation.



■ NOTE

- If you do not enter a file name before pressing the function (ok) button, the "No Name" message will appear and the directory will not be created. Be sure to enter a valid name before pressing the function (ok) button.

6 Done

When the Make Directory operation has finished the file list for the topmost directory will appear.

Format

Formats a memory card for use with the QY100.

CAUTION

- Formatting a memory card erases all data on the card, so be sure that the card you are going to format does not contain any important data that you want to keep.

1 Make Sure a Memory Card Is In the CARD Slot

Make sure that a compatible memory card which is not write-protected is properly inserted in the QY100 CARD slot (page 13).

2 Select the CARD Mode

Press the [CARD] button to select the QY100 CARD mode, while song and style data is not running.



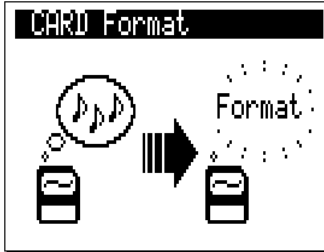
3 Select the “Format” Function

Move the cursor to “Format” on the display and press the [ENTER] button.



4 Format the Memory Card

From the format-standby display, press the [ENTER] button. When the “Are You Sure?” confirmation prompt appears, press the [+1/YES] button to execute the format operation, or the [-1/NO] button to cancel the format operation.



5 Done

When the format operation has finished the memory card file list display will appear.



Appendix

Specifications

Sequencer block

Data capacity	approximately 32,000 notes
Note resolution	480 clocks per quarter note
Polyphony	64 notes
Tempo	25-300
Modes	SONG mode (SONG, SONG VOICE, SONG EFFECT) PATTERN mode (PATTERN, PATTERN VOICE, PATTERN EFFECT)
Record modes	Realtime replace, Realtime overdub, Step, Multi
Tracks	Song: 16 sequencer tracks, pattern track(Pt), chord track(Cd), tempo track(Tm) Pattern: 8 pattern phrase tracks
Songs	20 songs + 3 demo songs
Patterns	768 preset patterns (128 preset styles x 6 sections) 384 user patterns (64 user styles x 6 sections) Sections: Intro, Main A, Main B, Fill AB, Fill BA, Ending
Phrases	4,285 preset phrases 48 user phrases per user style
Chord types	26 types (including "non-ABC" type)
Chord templates	99 preset chord templates 1 user chord progression per song
Play effect	Swing, Drum table remapping
Foot switch functions	Start/Stop, Section change

Tone generator block

Type	AWM2 tone generator
Maximum Polyphony	32 notes
Multi-timbral capability	24 timbres (last note priority with element reserve, DVA)
Preset voices	525 normal voices, 22 drum voices
Effects	3 blocks (Reverb, Chorus, Variation) Reverb: 11 types Chorus: 11 types Variation 43: types

Amp Simulator

Setups	23 setups (18 Guitar Setups and 5 Microphone Setups)
Blocks	Preamp Block (for Guitar) or Delay Block (for microphone) Chorus Block Reverb Block
Foot switch functions	Block On/Off

Memory Card

Save	ALL/SONG/STYLE/SMF(Format 0)/SMF+XG(Format 0)
Load	ALL/SONG/STYLE/SMF(Format 0)/SMF+XG(Format 0)

Controllers & display

Micro keyboard	25 keys (2 octaves)
Octave buttons	[OCT DOWN], [OCT UP]
Cursor buttons	up, down, left, right
Sequencer buttons	[▶], [■], [●], [◀], [◀◀], [▶▶]
	[AMP SIMULATOR], [PARAMETER], [SONG], [PATTERN], [SHIFT], [EXIT], [CARD], [MENU], [-1(NO)], [+1(YES)], [ENTER], Function buttons
Volume control	
Contrast control	
Gain control	
HOST SELECT switch	
Display	128 x 64 dots graphic LCD

Connectors

LINE OUT/PHONES	stereo mini jack x 1
GUITAR/MIC INPUT	standard monaural jack x1
MIDI	IN x1, OUT x1
TO HOST	
FOOT SW	standard jack x 1
CARD slot	3.3 V SmartMedia memory cards
DC IN	for PA-3B

Power supply

Optional PA-3B AC adapter
Six 1.5v AA size (LR6) or equivalent alkaline batteries

Dimensions

(W x D x H) 238 x 118 x 48 mm (9-3/8" x 4-5/8" x 1-7/8")

Weight

750g (1 lbs., 10 oz) without batteries

Included items

QY100 Data Filer for Win95/98/NT/2000/Me, Mac (Mac OS 7.5 or later)	
	CD-ROM x 1
Audio cable	miniature stereo phone plug to dual RCA pin plugs
Owner's manual set	QY100 owner's manual, Data List, QY100 Data Filer Installation Guide
Rubber feet	

* 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.

Troubleshooting

If you experience problems such as “no sound,” “incorrect sound,” or “sequencer does not operate,” please check the following points before deciding that the unit is malfunctioning. In many cases, checking these points will help you solve the problem.

If this does not solve the problem, contact your nearest Yamaha dealer or the authorized distributor for your country.

Problem	Possible causes	Refer to page
No sound	Is the volume sufficiently raised on the QY100 and/or external sound equipment?	
	Are the headphones or speakers properly connected?	p.14
	Is the Master Volume and/or each track volumes raised sufficiently?	p.134
	If the REVERB, CHORUS, VARI, and DRY settings are all set to 0, the sound for that track will not be produced.	p.137
	Is the Fingered Chord function turned ON? If you play a note within the Fingered Zone, no sound will be produced.	p.69, 252
	Is the MUTE setting turned ON?	p.102, 122, 132
	Is the MIDI IN jack or TO HOST jack properly connected?	p.15, 16
	Is the HOST SELECT switch properly set?	p.17
The sound is distorted.	Is MIDI local set to OFF?	p.248
	Have unneeded effects been set?	p.236
The guitar/microphone sound is distorted.	Is the GAIN control set properly?	p.27
	Is an appropriate amp simulator setup selected?	p.38, 47
Amp simulator effects aren't applied to the guitar or microphone sound.	Is the [AMP SIMULATOR] button indicator out? If it is, the Amp Simulator is bypassed and you'll need to press the [AMP SIMULATOR] button so that its indicator lights.	p.27
Notes are intermittently broken (notes sputter or stutter).	Does the number of currently sounding notes exceed the QY100's maximum polyphony of 32?	p.270

Appendix

Problem	Possible causes	Refer to page
Playback does not start when you press [▶].	Does the selected song/pattern contain data?	p.79, 98
	Is the MIDI Sync set to external?	p.247
	Is Style Number 129 (End Pattern) selected in the Song Mode's display?	p.55
Can't change the length of a pattern (number of measures).	The length of a pattern (number of measures) cannot be changed, if it includes recorded user phrases.	p.109
When a song is played back, it stops in the middle.	Is Style Number 129 (End Pattern) set in the middle of the Pattern Track?	p.84
Rhythm or note timing are played back differently than when recorded.	Are Play Effect settings being used?	p.124
The same amount of force is used to play notes on the keyboard but it results in notes of different loudness.	Is the keyboard velocity set between R1 and R4 (Random)?	p.106, 117
Cannot use the Fingered Chord function.	Is the Fingered Chord turned off?	p.69
	Are you pressing keys within the Fingered Zone?	p.252
Can't hear the click sound.	Is the click set to something other than "off" in the Utility mode?	p.244
When the song starts, the voice or effect settings that you have made disappear.	Does the beginning of the song contain data which resets the tone generator?	p.216
	If there is data in the Pattern track, the Variation effect settings for the pattern will be effective.	p.241
The "Memory Full" message appears yet there are still unused songs.	Press the [SHIFT] button and the second function button from the top simultaneously to check the current memory capacity. The QY100's memory capacity (approximately 32,000 notes) is for the total data of all songs and phrases. This means that if there are songs or phrases that contain large amounts of data, the memory may be full even though there are still unused songs or patterns.	p.23
The QY100 (tone generator) is slaved to an external sequencer but, there is no sound when the performance is played back from the external sequencer.	Is the Utility mode's MIDI Echo Back set to RecMontr? Change the Echo Back setting to Off or Thru.	p.248
Nothing is shown on the LCD.	Is the Contrast control properly set?	p.20

Error Messages

● Monitor

No Data

When a job is executed, this will appear if the selected track or area contains no data, making the job invalid. Re-select the area.

Illegal Input

This will appear in response to inappropriate operation or input. Check your input method.

Preset Phrase

This will appear when you attempt to edit a Preset Phrase. To edit a preset phrase, copy the phrase to a User Phrase and edit the User Phrase.

Preset Pattern

This will appear when you attempt to record to a Preset Pattern. You cannot record to Preset Patterns.

Preset Chord

This will appear when you attempt to change a Preset Chord Template with a Job (transpose, etc.) operation.

Now Bulk Mode

This will appear when you attempt to operate the QY100 while it is receiving bulk data.

● System

Memory Full

A song file or style file could not be loaded because the QY100's internal memory is full.

Delete unwanted song and/or style files to increase the amount of available memory. When a song or style file is loaded and previous data in the destination song or style file will be erased.

NotEnough Memory

A song file or style file could not be loaded because the QY100's internal memory is not enough.

Delete unwanted song and/or style files to increase the amount of available memory. When a song or style file is loaded, previous data in the destination song or style file will not be erased.

Backup Batt.Low

This will appear when the internal backup battery of the QY100 has run down. Contact the nearest Yamaha dealer or the authorized distributor for your country to have the battery replaced.

Power Batt.Low

This will appear when the batteries (Size AA x6) powering the QY100 has run down. When the batteries run down more seriously, "Power Batt.End" message will appear.

Power Batt.End

This will appear when the batteries (Size AA x6) powering the QY100 has run down seriously. In this case, memory card functions are no longer accessible. Replace the entire set of old batteries with a new set of batteries as soon as possible.

Factory Set

After the power is switched ON, a system diagnosis is run on the QY100's system. If the diagnosis finds the RAM to be defective, this message will appear and the memory will be reset to its original factory settings. Data for Song, User Patterns, and User Phrases will all be eliminated.

● MIDI

MIDI Data Error

This will appear when the received QY bulk data contains an error.

Now Running

This will appear when the QY100 is receiving bulk data. Other MIDI signals cannot be received at this time.

- MIDI Buffer Full** This will appear when the MIDI reception buffer of the QY100 has filled up, and processing was not possible. Try decreasing the amount of data or increasing the interval time and transmit the data once again.
- XG Data Error** This appears when the received XG parameter change contains a data size error
- XG Adrs Error** This appears when the received XG data contains an address error.
- XG Size Error** This appears when the received XG bulk data contains a data size error.
- Checksum Error** This appears when the received XG data contains a Checksum error.
- Host is OffLine** If the QY100 is connected to a computer, this appears when the computer's power is switched OFF. Switch the computer's power ON.

● Memory Card

- No Name** You have attempted to execute a save or load operation without specifying a file or directory name.
- No Card** This message will appear if you press the [CARD] button when no memory card is in the QY100 CARD slot (or a card has not been properly inserted).
Make sure a memory card is properly inserted in the CARD slot before pressing the [CARD] button.
- Card Mount Err** An error occurred while accessing the memory card.
Re-insert the card and try again.
- Too Many Files** This message will appear if you attempt to store 100 or more files and/or directories in a single directory.
The QY100 can display a maximum of 99 files and directories per directory.
- Too Long Path** The directory path (the string of characters that specifies the location of a directory) is longer than 100 characters.
QY100 directory paths can be up to 99 characters in length.
- Not Empty** You have attempted to delete a directory that contains one or more files or other directories.
All files and directories contained in a directory must be deleted before that directory can be deleted.
- Card Write Err** An error occurred while writing data to the memory card.
Re-insert the memory card and try again.
- Card Protected** You have attempted to execute a store or other write operation to a write-protected memory card.
Remove the write-protect seal from the card and try again.
- Same Name Exists** When using the Rename or Make Directory function you have entered a file or directory name that already exists.
Use a different file or directory name.
- Read Only File** This message will appear if you attempt to write to or delete a read-only file.
- Card Full** There is not enough memory available on the card to store the specified file.
Delete unwanted files from the memory card to make more memory available, and then try again.

Bad File	This message will appear if you attempt to access a broken file.
Illegal Format	The card you are attempting to access has not been properly formatted for use with the QY100.
Cannot Open	The specified file cannot be loaded.
Wrong ID	You have attempted to load a file that was not saved using the QY100 format.
SMF Error[00]	You have attempted to load an SMF file but the file to be loaded does not have the proper SMF format. Improperly formatted files cannot be loaded.
SMF Error[03]	You have attempted to load an SMF file in which the header chunk division data is not compatible with the QY100. Incompatible files cannot be loaded.
SMF Error[06]	The actual length of the SMF files you attempted to load was different from the length specified by the file's length data. The file may be corrupted. If possible, use an external device to re-save the data to the memory card and try again.
SMF Error[07]	You have attempted to load an SMF file which contains an incorrect status byte. Incompatible files cannot be loaded.
SMF Error[08]	You have attempted to load an SMF file which contains an incorrect data byte. Incompatible files cannot be loaded.
Not Format0	This message will appear if you attempt to load an SMF file that was saved in format other than SMF Format 0. Incompatible files cannot be loaded.
SMF Error[**]	An SMF error other than those listed above has occurred. Incompatible files cannot be loaded.
Card Error[**]	A memory card error other than those listed above has occurred. Try re-inserting the memory card and pressing the [CARD] button. If the error continues to occur, the memory card may be damaged.

● Messages other than error messages

Can't Undo OK? (Yes/No)	If executing a job would fill up the internal memory so that Undo will not be available, this message will appear. If you are sure that you will not need to Undo this job, press "YES". To cancel without executing the job, press "NO".
Are You Sure? (Yes/No)	Before an operation is executed, this message will ask you for confirmation. To execute the operation press "YES". To cancel the operation press "NO".
Completed	This will appear when the current process has been completed.
Executing...	This message will appear while the job is being executed. Please wait.
Transmitting...	When transmitting MIDI bulk data, this message will appear.
Receiving...	When receiving MIDI bulk data, this message will appear.

Glossary

A

Aftertouch:

MIDI messages which are transmitted when additional pressure is applied to the keyboard after notes are played.

Amp Simulator:

Simulates the characteristics of a guitar or microphone preamplifier — including effects such as overdrive, chorus, delay, and reverb.

Attack time:

The time over which the volume rises from 0 when a note is played, until the maximum volume is reached.

Auto Bass Chord (ABC):

A function which will automatically re-harmonize the accompaniment patterns by specifying chord progressions.

AWM 2 tone generator:

A method of generating sound developed by Yamaha which is based on digitally recorded waveforms. Since it generates the complex waveform of actual acoustic instruments, it provides extremely realistic sounds. Digital filtering is also built-in, allowing precise control over the tone. AWM2 is an acronym for Advanced Wave Memory 2.

B

Beat:

When playing back or recording a song, one “beat” (a rhythmic subdivision of a measure).

Bulk data:

A type of System Exclusive message which contains a collection of data for the internal settings of a device.

Bulk dump:

The process of transmitting bulk data in MIDI System Messages to external MIDI devices.

C

Chord root:

An alphabetical letter which indicates the root of a chord. The QY100 lets you indicate 12 different chord roots.

Chord template:

A collection of preset models for chord progressions. The collection includes generic chord progressions for Popular styles as well as Blues and Tension styles.

Chord track (Cd):

A track that lets you record and play back Chord Roots and Chord Types for the Auto Bass Chord (ABC) function.

Chord type:

A symbolic or numerical indication of how a chord is composed (Major, minor, 7th, etc.). The QY100 allows you to select from 26 (including “non-ABC”) chord types.

Chorus:

A type of effect that adds richness and depth to the sound, similar to what happens when multiple sound sources are heard simultaneously.

Click:

A metronome that is sounded when playing back or recording on a sequencer.

Clock:

A unit of timing resolution. On the QY100, one clock is a length of 1/480th of a quarter note.

Control change:

A group of MIDI messages that can be used to select voice banks and control the volume, pan, etc. They are also output when a controller (modulation wheel, foot controller, etc.) is operated. Each controller has its own control number.



Cutoff frequency:

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. See the entry for Low Pass Filter.

D

Decay time:

The time from when the maximum volume of a note is reached until it falls to the sustain level.

Delay:

An effect that delays an audio signal. The QY100's Variation effect allows a delay to be applied.

Depth:

The amount or degree of a setting or effect.

Drum table remapping:

One of the play effect functions. This function allows you to change specified rhythm instruments in the drum play data to other rhythm instruments when a song or pattern is played back.

Dry sound:

The audio signal that is not processed by an effect. Normally when using an effect, not all of the audio signal is passed through the effect. Rather, the degree of the effect is adjusted by mixing the sound that passes through the effect (the wet sound) with the sound that bypasses the effect (the dry sound). See also the entry for Wet sound.

E

Echo back:

The action or process in which data received via the MIDI IN connector is re-transmitted from the MIDI OUT connector.

Edit:

The action of modifying or editing data.

Effect:

A block that processes the sound to add various effects. The QY100 provides two system effects (reverb and chorus), and one effect (variation) which can either be used as a system effect or as an insertion effect.

Element:

A block within the AWM2 tone generator that generates a sound. The voices of the QY100 consist of 1 or 2 elements. Voices that use 2 elements generally have a thicker sound that cannot be achieved when using 1 element. With 2 elements different voices such as piano and strings sounds can be mixed into a single voice.

Envelope generator (EG):

A block that modifies the level of the tone generator from the moment that a note is played until the sound decays to silence.

Event:

A single piece (such as Note On/Off or Program Change messages) of the data which makes up a sequence.

Exclusive:

See the entry for System Exclusive Message.

Expression:

A MIDI control change message used to control the volume of a part (track).

F

Filter:

A block which modifies the tone by cutting the output of a specific frequency portion of the sound. The QY100 has low pass filters allowing the tone to be made more mellow by cutting the overtones above a specified frequency, or brighter by allowing them to pass. See also the entry for Low pass filter.

Fingered chord:

A function that automatically detects chords based on the combination of notes that are played on the keyboard, and converts the playback of patterns to the chords that are detected.

G

Gate Time:

The length of time that a note actually sounds. Longer gate times produce slurred notes, shorter gate times produce staccato.

GM:

An acronym for General MIDI. A specification that defines the arrangement of voices in a tone generator and its MIDI functionality, ensuring that data can be played back with substantially the same sounds on any GM-compatible tone generator.

H

Hexadecimal number:

A system of numbering based on 16, in which the digits increment in units of n-th powers of 16. The alphabetical characters A-F are used to express the numbers 10-15. This system of numbering is used for MIDI data.

I

IBM-PC/AT Series:

A type of personal computer manufactured and sold by the International Business Machine Corporation. Compatible computers are manufactured and sold by many companies

Insertion (effect):

An effect which can be applied to one specific part (track). With this effect, you can apply effects more “aggressively” to your song. (e.g. rotary speaker effects to organ sounds, or “wah” effects to guitar sounds.)

Interval time:

A delay time that is inserted at regular intervals of one kilobyte when transmitting system exclusive data that was recorded in a sequence track to tone generators (or external MIDI tone generators).

L

LFO:

An acronym for Low Frequency Oscillator, a block that produces a signal at a low frequency which synthesizers use for the creation of sound. The signal from the LFO can be used to modulate pitch, volume or tone to produce effects such as vibrato, tremolo and wah.

Location:

The place within a song or pattern at which notes will be input or playback will be started, indicated as measure, beat, and clock.

Low Pass Filter:

A type of filter which cuts high frequencies above a specified point. The sound can be brightened by raising the cutoff frequency of the filter, or darkened by lowering it.

LSB:

An acronym for Least Significant Byte, referring to the lower byte of data when MIDI control change data is divided into two bytes for transmission.

M

Maximum Polyphony:

The maximum number of notes that can be played at once. The QY100 can produce 32 simultaneous notes (counted in 1-element units). If MIDI messages are received requesting more notes than the maximum polyphony allows, currently sounding notes will be turned off, and the later-received notes will be played.

Measure:

A unit of musical duration consisting of several beats.

Memory Card:

Wafer-thin, high-volume memory cards provide a convenient way to store and retrieve QY100 song and style data. Memory cards that can be used with the QY100 are available at many electronics and computer stores. Also see “SmartMedia”.



MIDI:

An acronym for Musical Instruments Digital Interface, a standard for transferring data between musical instruments. Most electronic musical instruments today implement the MIDI specification and provide MIDI connectors. Such instruments can be easily connected together to create remote performance or automatic performance systems.

MIDI Data Filer:

A MIDI device that receives bulk data for the internal settings of a MIDI device in the form of System Exclusive messages, and stores them to disk. An example is the Yamaha MDF3 MIDI data filer.

Mixer:

On the QY100, the display page in which you can make settings such as, pan, volume, etc. for the voice of each song or pattern track, when playing back.

Modulation:

A function that can be used to change the volume, tone, or pitch cyclically while you perform. On the QY100, you can apply modulation by holding the [OCT UP] button while playing a note on the micro keyboard.

MSB:

An acronym for Most Significant Byte, referring to the upper byte of data when MIDI control change data is divided into two bytes for transmission.

Multi-timbral tone generator:

A tone generator that can simultaneously produce more than one voice.

Mute:

A function that temporarily silences the specified track or reduces its volume.

N

NRPN:

An acronym for Non Registered Parameter Number. These are a type of MIDI control change message, and are 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.

O

On-bass:

A function that lets you specify a root note for the bass independently of the chord, so that the playback of a bass phrase whose Phrase Type is Bass will be fixed on that root note.

Overdub:

A method of real-time recording in which new material is recorded without erasing previously recorded tracks.

P

Pan:

The parameter that sets the stereo location of a sound when it is played back in stereo. ("Pan" or "panpot" are abbreviations of "panoramic potentiometer".)

Parameter:

A setting or data item which you can modify in the various mode and sub-mode displays.

Patch:

An assignment of phrases for each track to create patterns.

Pattern:

An auto accompaniment pattern consisting of drums, bass and chord backing.

Pattern track (Pt):

The track which records and plays back pattern data.

Phrase:

The smallest unit from which the accompaniment pattern is created. A phrase, such as drum phrase, bass phrase, etc., can be assigned to one of the 8 tracks of the pattern.

Phrase category:

A classification of phrases that are categorized by instruments and performance styles.

Pitch bend:

A type of MIDI message that smoothly changes the pitch.

Pitch bend wheel:

A controller that smoothly changes the pitch. On the QY100, pitch bend can be applied by holding the [OCT DOWN] button while playing a note on the micro keyboard.

Portamento:

An effect that smoothly changes the pitch from one note to another note. Higher settings of Portamento Time will produce a slower change, and there will be no effect with a setting of 0.

Preset:

A type of memory that is built into a device. The QY100 has preset memories for voices, phrases, and patterns, etc.

Program change:

An event or MIDI message that selects a voice.

Program number:

On the QY100, a number specifying one of the GM-defined voices.

Q

Quantize:

A function which “Tightens up” the inexact timing of notes or other events that were entered in real-time.

QY100 Data Filer:

A computer software application that allows for the exchange of QY100 data between the computer and the QY100. Data from the QY100 can be saved in the computer and QY data stored in the computer can be transmitted to the QY100. Commercially available SMF song data or XG song data can also be transmitted from the computer to the QY100.

R

Realtime recording:

A method of recording in which your performance is recorded just as you play, similar to a conventional multi-track recorder. Since the performance is recorded as you play, the musical expression and nuances of your performance will be accurately recorded.

Redo:

Carries out the operation that was previously canceled with Undo.

Release time:

The time over which the volume falls from the sustain level (beginning at the moment a note is released) until it reaches silence.

Replace:

A method of real-time recording in which previously recorded data is erased (replaced) as new material is recorded.

Resonance:

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

Return level:

See the entry for Send level.

Reverb:

An effect that simulates the acoustical reverberance of a room or space. The sound that reaches our ear usually includes not only the direct sound, but also that was reflected off the walls or ceiling. Reverb creates these indirect reflections artificially.

RPN:

An acronym for Registered Parameter Number. These are a type of MIDI control change message that are used to set Part settings such as Pitch Bend Sensitivity or Tuning, etc.



S

Section:

A term referring to each of the six types of patterns that comprise a style. Patterns are selected by specifying the style and the section.

Send level:

The amount of signal that is sent to a specified bus line for processing by an effect. The amount of signal that is returned from the effect is the "return level".

Sequencer:

A block (or device) that records, edits, modifies, and plays back a musical performance in the form of MIDI messages.

Sequencer tracks:

Tracks which record and playback normal MIDI sequence data. The QY100 has 16 sequencer tracks.

SmartMedia:

SmartMedia (a trademark of Toshiba Corporation) refers to memory cards conforming to SSFDC Forum specifications (SSFDC stands for "Solid State Floppy Disk Card"). The SSFDC Forum is an organization that develops and defines the standards for these memory cards.

SMF:

See the entry for Standard MIDI File.

Solo:

This function mutes the playback of all tracks except that of the selected track as long as the track is soloed.

Song:

A musical composition created by recording performance data on each track.

Standard MIDI File (SMF):

SMF is an acronym for Standard MIDI File; a standard format that was created to allow easy exchange of song data between different sequencers. Most of today's software and hardware manufacturers provide

sequencers that can create and play back Standard MIDI files.

Step recording:

The method of recording in which music is input by entering notes one by one, specifying the note length, velocity, and pitch etc. of each note.

Style:

A collective name for pattern categories (hip hop, hard rock, etc. musical genres). Styles are divided into six sections (intro, fill-in, ending, etc.).

Sustain level:

The volume level of the note from the time after the maximum level of the note is reached, until the note played on the keyboard is released.

Swing:

Refers to a type of rhythm or "groove" which, at the extreme, can apply a triplet feel to 8th or 16th note patterns — as in "swing jazz". Subtler applications of swing can be used to give rhythmic patterns a more "bouncy" feel.

Synchronization:

The function or process of matching the playback or recording tempo of a device with a separated, external device such as another sequencer or a rhythm machine.

Sync:

See Synchronization

System (effect):

An effect which can be applied to all parts (tracks) by adjusting the Send Levels and Return Level. System effects allow reverb or chorus to be conveniently applied to the overall music. The QY100 provides Reverb and Chorus as system effects. The Variation effect can also be used as a system effect.

System Exclusive Message:

A type of MIDI message used to exchange data unique to a specific model or type of device.

T

Tempo track (Tm):

The track in which data that determines the playback tempo of the song is recorded.

Track:

A location where musical performance data is recorded in the sequencer. You can record piano on track 1, bass on track 2, etc.

Transpose:

Shifts the pitch of recorded data in semitone steps.

Tremolo:

An effect produced by cyclically modulating the volume.

Tuning:

The process of matching the pitch of two or more instruments when playing in an ensemble. Normally, A3 is tuned to 440Hz.

U

Undo:

This command cancels the previously performed operation and returns the data to the condition of that before the operation was executed. On the QY100, this command can be performed against JOB, EDIT, and RECORDING operations. See the entry for Redo.

Utility:

On the QY100, the display in which MIDI settings and system settings can be made.

V

Variation effect:

One of the QY100's effects which can function either as an insertion effect or as a system effect, and provides a wide variety of effect programs such as delay, rotary speaker, auto pan, amp simulation and auto wah in addition to reverb and chorus.

Velocity:

A numerical value indicating the speed (force) with which a note was pressed.

Vibrato:

A performance effect produced by cyclically changing the pitch.

Voice:

A sound that is built into the tone generator that can be selected and played.

W

Wet sound:

The audio signal that is processed by an effect. Normally when using an effect, not all of the signal is passed through the effect. Rather, the degree of the effect is adjusted by mixing the sound that passes through the effect (the wet sound) with the sound that bypasses the effect (the dry sound). See also the entry for Dry sound.

X

XG:

A tone generator format developed by Yamaha which expands the GM specification to provide the richer expressiveness and upward data compatibility that is demanded by today's more sophisticated computer peripheral environment.



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