



YAMAHA

MUSIC SEQUENCER

QY22

**OWNER'S MANUAL**

GENERAL  
**MIAMI**

# SPECIAL MESSAGE SECTION

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

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

## SPECIFICATIONS SUBJECT TO CHANGE:

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

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

## NOTICE:

Service charges incurred due to 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 old 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 \_\_\_\_\_

**YAMAHA**

**MUSIC SEQUENCER**

**QY22**

*OWNER'S MANUAL*

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









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# Precautions

Your QY22 will give you years of reliable service if you follow the simple rules given below:

## ■ Location

Do not expose the instrument to the following conditions to avoid deformation, discoloration, or more serious damage.

- Direct sunlight (e.g. near a window).
- High temperatures (e.g. near a heat source, outside, or in a car during the daytime).
- Excessive humidity.
- Excessive dust.
- Strong vibration.

## ■ Power Supply

- Turn the power switch OFF when the instrument is not in use.
- If you use an AC power adaptor, unplug the adaptor from the AC outlet if the instrument is not to be used for an extended period of time.
- Unplug the AC power adaptor during electric storms.

- Avoid plugging an AC power adaptor used with the QY22 into the same AC outlet as appliances with high power consumption, such as electric heaters or ovens. Also avoid using multi-plug adaptors since these can result in reduced sound quality and possibly damage.

## ■ Turn Power OFF When Making Connections

- To avoid damage to the instrument and other devices to which it is connected (a sound system, for example), turn the power switches of all related devices OFF prior to connecting or disconnecting audio and MIDI cables.

## ■ Handling and Transport

- Never apply excessive force to the controls, connectors or other parts of the instrument.
- Always unplug cables by gripping the plug firmly, not by pulling on the cable.
- Disconnect all cables before moving the instrument.

- Physical shocks caused by dropping, bumping, or placing heavy objects on the instrument can result in scratches and more serious damage.

### ■ Cleaning

- Clean the cabinet and panel with a dry soft cloth.
- A slightly damp cloth may be used to remove stubborn grime and dirt.
- Never use cleaners such as alcohol or thinner.
- Avoid placing vinyl objects on top of the instrument (vinyl can stick to and discolor the surface).

### ■ Electrical Interference

- This instrument contains digital circuitry and may cause interference if placed too close to radio or television receivers. If this occurs, move the instrument further away from the affected equipment.

### ■ Data Backup

- The QY22 contains a special long-life battery that retains the contents of its internal RAM memory even when the power is turned OFF.

The backup battery should last for several years. When the backup battery needs to be replaced “Backup Batt. Low!” will appear on the display when the power is turned on. When this happens, have the backup battery replaced by qualified Yamaha service personnel. **DO NOT ATTEMPT TO REPLACE THE BACKUP BATTERY YOURSELF!**

- Internal memory data can be corrupted due to incorrect operation. We recommend that you use the QY22 MIDI bulk dump utility (see page 163 for details) to transfer important data to a MIDI data recorder such as the Yamaha MDF2 for safe long-term storage. Yamaha cannot be held responsible for data loss caused by battery failure or improper operation of the QY22!

### ■ Service and Modification

- The QY22 contains no user serviceable parts. Opening it or tampering with it in anyway can lead to irreparable damage and possibly electric shock. Refer all servicing to qualified YAMAHA personnel.

YAMAHA is not responsible for damage caused by improper handling or operation.



# About This Manual

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The following simple icons are used throughout this manual to draw attention to important points and information where necessary. The icons also make it easier to differentiate between information that you should read immediately and information that can be skipped until later, hopefully helping you to become familiar with the QY22 in the quickest, most efficient manner possible.



This icon warns of possible hardware damage, software malfunction, or any other serious problem that may occur due to improper operation or set up.



This icon marks information that you must read — i.e. important steps or procedures that are essential for proper, efficient, or easy operation.



The magnifying-glass icon indicates information that may not be essential for general operation, but is a more detailed explanation of a feature, a description of the principle involved, etc. You can skip this information if full details are not required immediately.



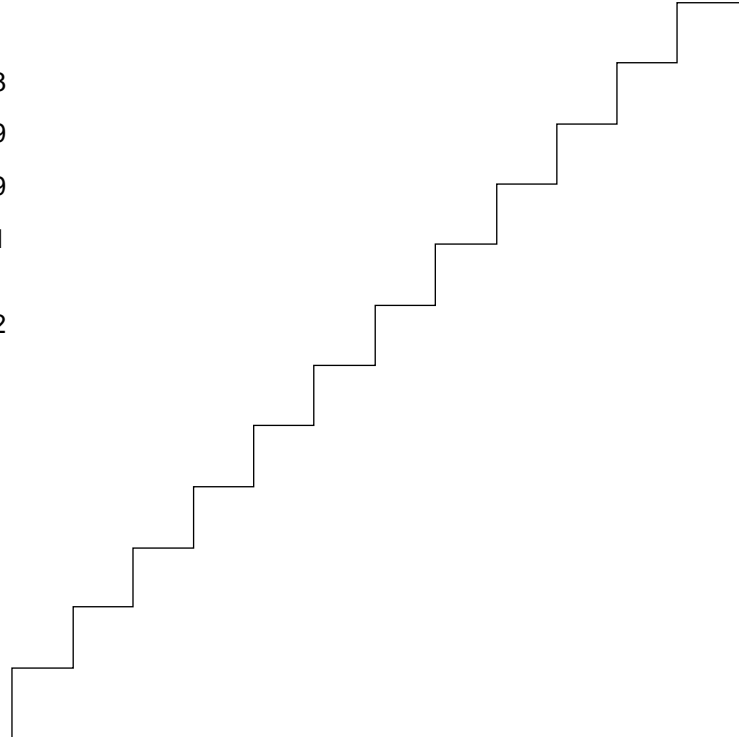
Suggestions as to how a feature or function can be applied musically are identified by this icon.



Hints or ideas that are not specifically musical but may make operation easier or more interesting are marked by the lightbulb icon.

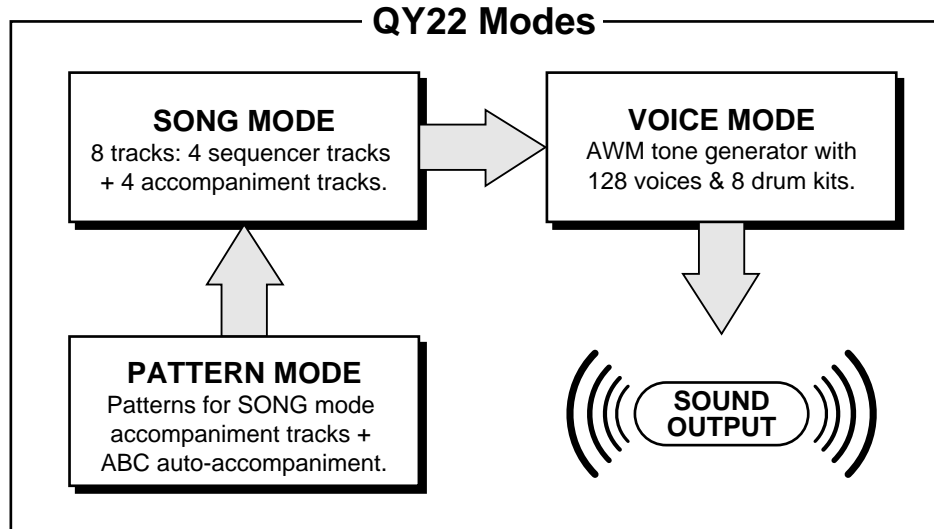
# *The QY22: What It Is & What It Can Do*

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## What It Is ...

The QY22 is a complete music production system with tone generator, sequencer, and auto-accompaniment capability all integrated with a sophisticated control interface. It has 3 **modes** that provide access to its 3 main functional blocks: the **VOICE** mode, the **SONG** mode, and the **PATTERN** mode.



## VOICE Mode

The QY22's internal AWM tone generator provides full General MIDI Level 1 compatibility with 128 top-quality General MIDI **voices** plus 8 complete **drum kits** with different drum and percussion instruments assigned to different notes. You can assign any of these voices to the internal sequencer tracks (⇔ page 38), or play them directly from an external keyboard or other MIDI controller via the MIDI interface (⇔ page 168).



*See the Appendix (page 172) for a complete list of the QY22 voices.*

## SONG Mode

Think of the QY22 SONG mode as an 8-track tape recorder or 8-part score that lets you record different parts of a musical composition one at a time, and then play them back all together. You can even edit certain parts after they've been recorded to correct mistakes and fine-tune the overall sound. The QY22 has an internal memory that will hold up to 20 complete **songs**. For extra storage capacity you can use the MIDI **bulk dump** utility to transmit the song data to a MIDI data recorder such as the Yamaha MDF2 (⇔ page 163).

The SONG mode's 8 tracks are actually divided into 2 4-track groups: tracks 1 through 4 are the **sequencer tracks**, while the remaining 4 tracks are the **accompaniment tracks**. The difference is described below.

● **The Sequencer Tracks**

**SONG Mode Tracks**

|                          |                              |
|--------------------------|------------------------------|
| <b>Sequencer tracks.</b> | Sequencer track 1 ("TR1")    |
|                          | Sequencer track 2 ("TR2")    |
|                          | Sequencer track 3 ("TR3")    |
|                          | Sequencer track 4 ("TR4")    |
| <b>Accomp. tracks</b>    | Accompaniment chord 1 ("C1") |
|                          | Accompaniment chord 2 ("C2") |
|                          | Accompaniment bass ("Ba")    |
|                          | Accompaniment drums ("Dr")   |

The QY22 sequencer has 4 “normal” sequencer tracks to which you can individually assign any of the 128 internal voices (or 8 drum kits if desired), and record just about anything you like either via the QY22’s own **micro keyboard** or an external keyboard connected to the QY22 MIDI IN connector. You can use the **real-time record** mode (⇔ page 109) so that the QY22 records exactly what you play as you play it, or the **step record** mode (⇔ page 115) in which notes can be entered one at a time. The step record mode lets you record extremely fast or complex passages that would be impossible to play in real time.

● **The Accompaniment Tracks**

The remaining four tracks are dedicated to producing accompaniment: the **chord 1** and **chord 2** tracks, a **bass track**, and a **drum track**. The accompaniment tracks differ from the sequencer tracks in 2 ways:

1. Accompaniments are produced by specifying a sequence of **patterns** to be played rather than by recording individual notes or chords (⇔ page 52). The QY22 has 100 preset patterns that you can simply select and use, and can store up to 100 original patterns you create in the PATTERN mode (⇔ page 78).

2. The accompaniment tracks feature Yamaha's advanced **ABC (Auto Bass Chord)** auto-accompaniment system (⇔ page 47). Of course, you can create accompaniments without using ABC if you like.

## PATTERN Mode

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The QY22 PATTERN mode produces the accompaniment patterns that are used by the SONG mode accompaniment tracks. The best of the QY20's preset patterns have been incorporated into the QY22's preset patterns as well as some powerfully new patterns created especially for the QY22. 100 preset patterns are provided (each with 6 variations: Intro, Normal, Variation, Fill-in 1, Fill-in 2, and Ending) that you can simply select and use to create accompaniments in a wide variety of styles (⇔ page 42). In the PATTERN mode you can also record entirely original patterns that you'll later string together in the SONG mode to create a complete accompaniment track (⇔ page 52). The ABC auto-accompaniment feature can be applied to your own patterns. The QY22 can store up to 100 original patterns, and you can use the MIDI bulk dump utility to transmit pattern data to a MIDI data recorder such as the Yamaha MDF2 if you want extra storage capacity (⇔ page 163).



*See the Appendix (page 180) for a complete list of the preset patterns.*

## What It Can Do ...

Here are a few ideas on how you can use the QY22. There's no way we can cover all possibilities, but the ideas presented might help to spark some new and interesting applications.

- **A Super Practice Tool**

Create accompaniments that you can practice with on your guitar, keyboard, or any other instrument (vocals too, of course). That way you have the advantage of practicing with a bass line and chords instead of just a metronome or drum machine (⇔ page 52).

- **Use It As A Drum Machine**

Use the drum kit voices to record on the sequencer tracks, or record drum-only patterns in the PATTERN mode that you can later string together in the SONG mode. You can also use the drum tracks from the preset patterns (⇔ page 75).

● **Compose & Arrange**

The QY22's outstanding voices, versatile sequencing capability, and in-depth editing features make it a perfect tool for trying out musical ideas and arrangements. It's also a great way to present your ideas to others (⇨ page 108).

● **Serious Music Production**

Use the QY22 as an adjunct to serious music recording and production. It can, for example, be MIDI-clock synchronized to other MIDI equipment in order to add extra tracks to an arrangement (⇨ page 160).

● **Use It As a Tone Generator**

The QY22's AWM tone generator is in no way a compromise. You get outstanding AWM sound quality that's on a par with some of the finest full-size synthesizers. You can select and play the QY22 voices remotely from just about any MIDI keyboard, computer, or other controller (⇨ page 168).

● **Add ABC Capability to Your MIDI Keyboard**

Use the QY22 as an "ABC expander" for your MIDI keyboard. Auto-accompaniment can make playing at home more fun, and it can be a tremendous sound-booster at 1-performer live gigs (⇨ page 170).



## About General MIDI



The QY22 is fully compatible with the General MIDI System Level 1 Standard.

As you probably know, MIDI (Musical Instrument Digital Interface) makes it possible for various electronic musical instruments and other devices to “communicate” with each other. For example, by connecting a sequencer to a synthesizer, you can play back a song’s data on the sequencer using the voices of the synthesizer.

But until General MIDI came along, the problem has been that voice assignments had never been standardized. So, if you were to create a song using tone generator A’s piano voice and then play it back on tone generator B, it might be played back as an organ voice. This is because each company has used its own voice assignments in its products.

The General MIDI Level 1 Standard was developed to solve this problem. The most important feature of General MIDI is the standardization of voices. This means that a song recorded in the General MIDI format can be played back on any General MIDI compatible tone generator and sound just as the composer had intended.

# Setting Up: Power & Connections

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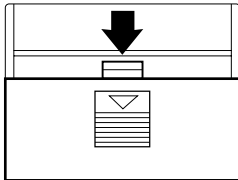
## Power Supply

Your QY22 will run either from batteries or an optional AC adaptor. Follow the instructions below according to the power source you intend to use.

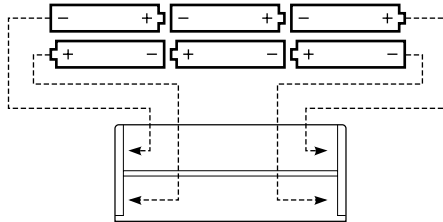
### Using Batteries

Six 1.5V AA size (SUM-3 or R6P) or equivalent alkaline batteries must first be installed in the battery compartment.

#### **1** Open Battery Compartment Cover



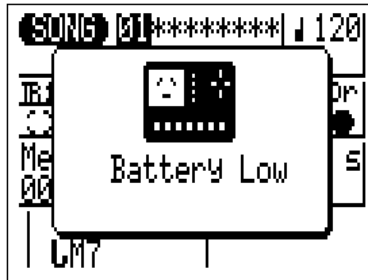
Open the battery compartment cover — located on the instrument's bottom panel — by pressing down on the grooved section of the cover and sliding in the direction of the arrow, as shown in the illustration.

**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 and are no longer able to operate the QY22, the sound may become distorted and the display shown to the left will appear.

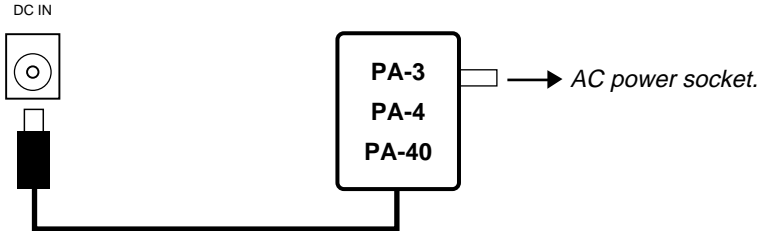
When this display appears, replace the batteries with a complete set of six new batteries. **NEVER mix old and new, or different types of batteries (e.g. alkaline and manganese)!**



*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.*

## Using a Power Adaptor

Plug the DC output cable from a Yamaha PA-3, PA-4, or PA-40 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.



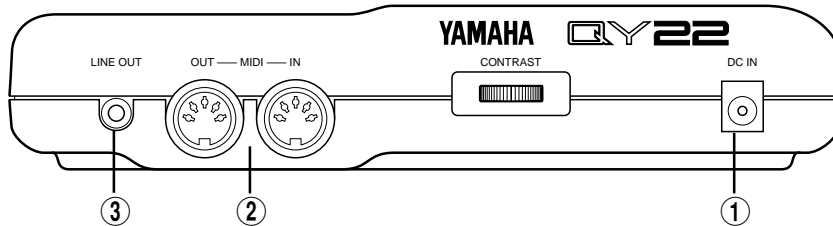
*Do not attempt to use an AC adaptor other than the specified unit or an appropriate replacement provided by your Yamaha dealer to power the QY22. The use of an incompatible adaptor may cause irreparable damage to the QY22, and might pose a serious shock hazard! Be sure to unplug the AC adaptor from the AC mains socket when the QY22 is not in use.*

## Setting Up Your System

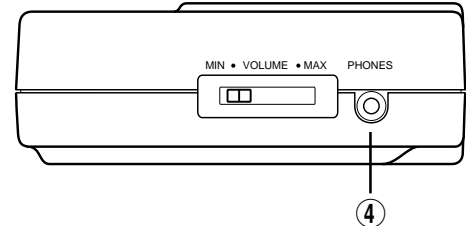
What you will connect the QY22 to, and what you will connect to the QY22, will depend entirely on your individual requirements, and it would be impossible to cover all possibilities here. A few examples are provided below to help you get started.

### The Connectors

*Rear Panel*



*Right Side Panel*



### ① DC IN Jack

This jack is only used when you are powering the QY22 from an optional AC adaptor instead of batteries. The DC output cable from an optional Yamaha PA-3, PA-4, or PA-40 AC Power Adaptor is plugged in here.



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

### ② MIDI IN & OUT Connectors

If you plan to use a MIDI keyboard or other instrument to play and program the QY22, it should be connected to QY22 MIDI IN connector (see “MIDI Connections,” below). The MIDI OUT connector can be connected to an external tone generator if you want to drive external voices from the QY22 sequencer, or a MIDI data recorder such as the Yamaha MDF2 if you want to store your songs and patterns to floppy disk (⇨ page 163).

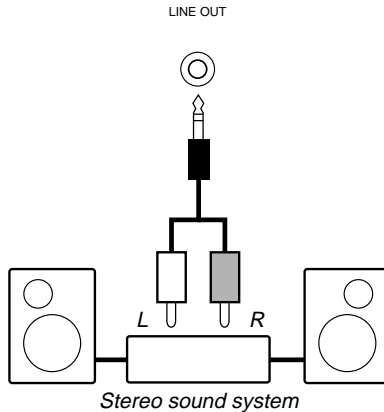
### ③ LINE OUT Jack

This miniature stereo phone plug delivers a line-level stereo output signal from the QY22 for connection to a stereo sound system (see “Audio Connections,” below). The output level is adjusted via the VOLUME control on the right side panel.

### ④ PHONES Jack

Any pair of stereo headphones with the miniature stereo phone plug can be plugged in here for convenient monitoring. The PHONES output level is adjusted via the VOLUME control on the right side panel.

## Audio Connections



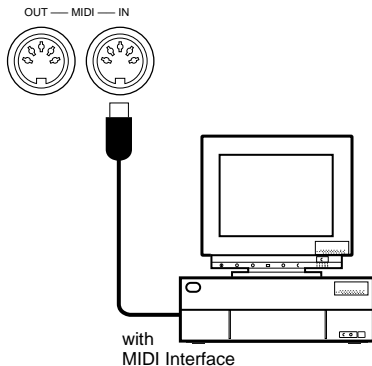
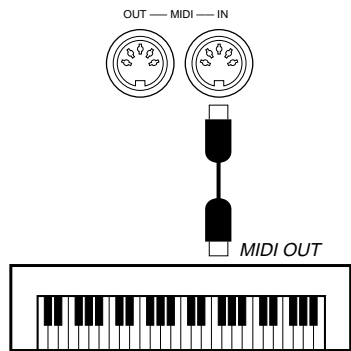
The simplest way to monitor the QY22 sound is via a pair of stereo headphones (miniature stereo phone plug type) plugged into the PHONES jack. If you want to use an external stereo sound system, however, use the LINE OUT jack and the supplied “Y” cable (miniature stereo phone plug to dual RCA pin plugs). 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.



*Make sure that both the QY22 and your sound system are turned OFF when making connections.*



## MIDI Connections



Although the QY22 can be played and programmed from the built-in micro keyboard, it can also be connected to an external keyboard or computer for added benefits. 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). Connected to a computer with sequencing software, the QY22's high quality Voices and Multi-timbral capabilities can easily expand your home studio setup. Connect the MIDI OUT connector of the keyboard, or other control device, to the MIDI IN connector of the QY22, and make sure that your keyboard is set to transmit on the appropriate MIDI channel. The QY22 MIDI assignments are as follows:

| MIDI Channel | Voice                                   |
|--------------|---|
| 1 .....      | Sequencer track <b>TR1</b>              |
| 2 .....      | Sequencer track <b>TR2</b>              |
| 3 .....      | Sequencer track <b>TR3</b>              |
| 4 .....      | Sequencer track <b>TR4</b>              |
| 5 .....      | Accompaniment track <b>C1</b> (Chord 1) |
| 6 .....      | Accompaniment track <b>C2</b> (Chord 2) |
| 7 .....      | Accompaniment track <b>Ba</b> (Bass)    |
| 10 .....     | Accompaniment track <b>Dr</b> (Drums)   |

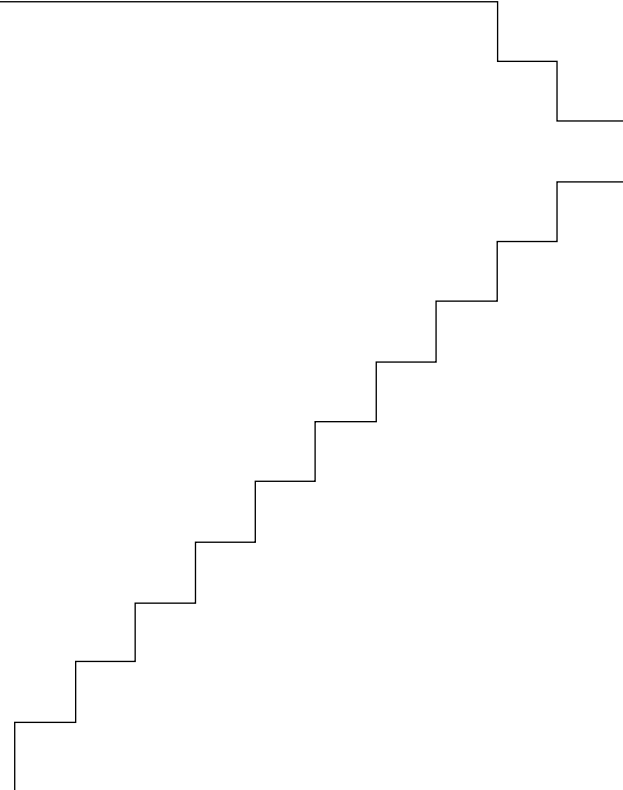
This simply means that if your keyboard transmits on MIDI channel 1, it will control the QY22 voice that is currently assigned to sequencer track 1, and so on. See page 38 for instructions on how to assign different voices to the SONG mode tracks.



*Data received on MIDI channels other than those listed above also produce sound, according to the received MIDI program change messages (see the "MIDI Data Format" booklet). Also, if the QY22 is to be used as a General MIDI tone generator, the MIDI Ctl (MIDI Control) parameter should be set to "Off" (See page 160)*

# *Getting to Know the QY22: How the Controls Work*

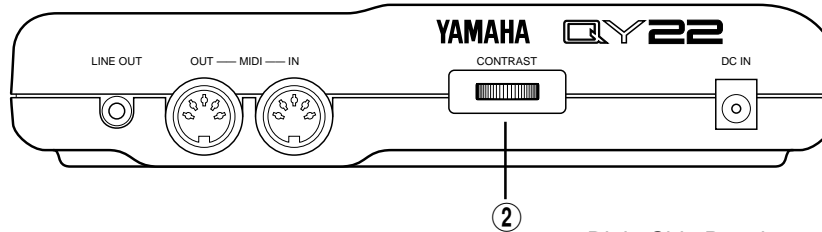
|                     |    |
|---------------------|----|
| The Controls .....  | 24 |
| Play the Demo ..... | 34 |



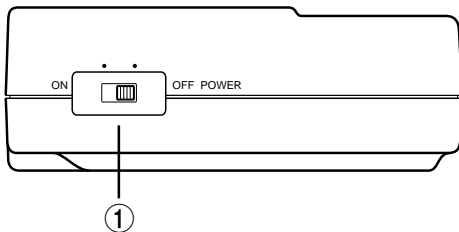
The QY22 has fairly simple, consistent control interface that, once understood, makes operation fast and easy, no matter what operation you are performing. If you read through this section carefully, and try out the procedures in the **Try This:** sections, you should have no problem accessing and operating the QY22's many advanced features.

## The Controls

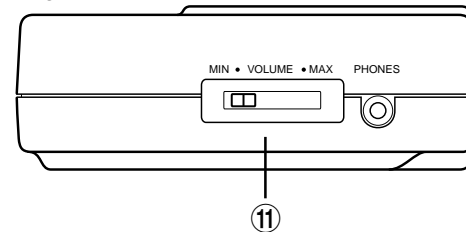
Rear Panel



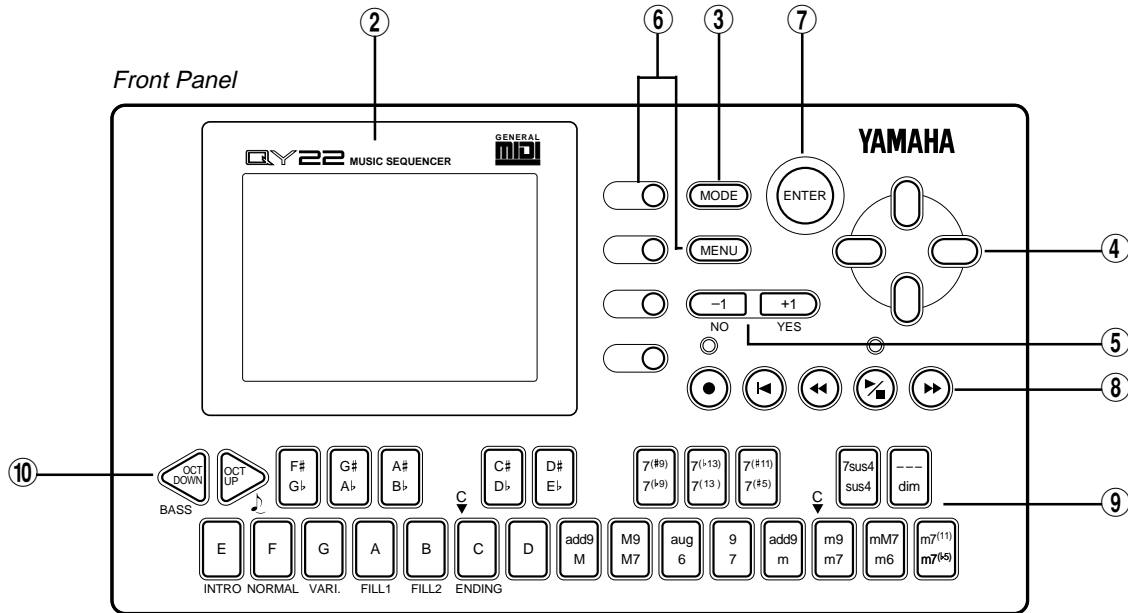
Left Side Panel



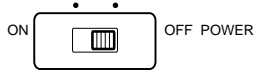
Right Side Panel



### 3 Getting to Know the QY22: How the Controls Work



#### ① POWER Switch



Slide to the “ON” position to turn the QY22 on, and to the “OFF” position to turn it off.



*Always turn the power switch off when not using your QY22.*

#### ② LCD Display & CONTRAST Control



This large multi-function liquid crystal display panel shows all parameters and prompts you need to operate the QY22 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).

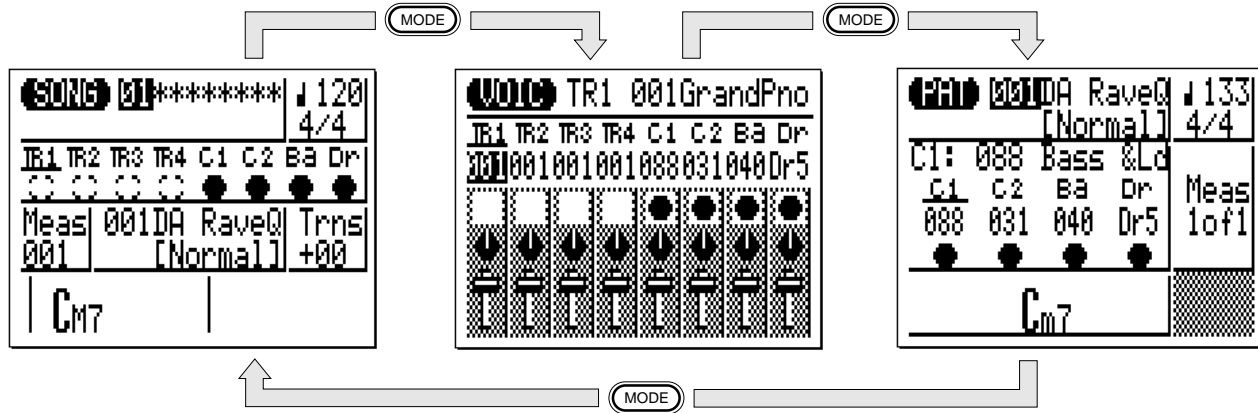
#### ③ [MODE] Key



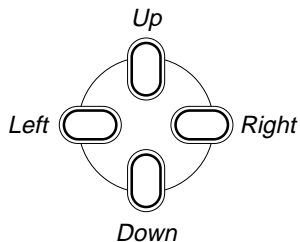
Use this key to switch between the QY22’s SONG, VOICE, and PATTERN modes.

#### **Try This:**

Turn your QY22 on (the power switch is on the left side), then press the [MODE] key a few times and watch how the display changes. The [MODE] key calls the SONG, VOICE, and PATTERN mode displays in sequence.



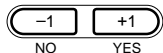
#### ④ Cursor Keys



These 4 keys move the “cursor” around the display screen, highlighting the various parameters that are available for editing (the QY22 cursor appears as a dark block with inverse characters).

**Try This:** Select the SONG mode display (use the [MODE] key, as described above), then try using the cursor keys to move the cursor around the screen.

#### ⑤ [-1/NO] and [+1/YES] Keys

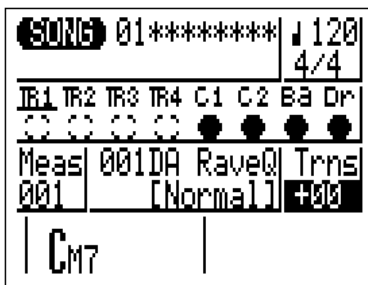


These keys are used to edit (change the value of) the parameter at which the cursor is currently located. The [-1/NO] key **decrements** (decreases stepwise) the value of the selected parameter, while the [+1/YES] key **increments** (increases stepwise) the parameter. Press either key briefly to decrement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

The [-1/NO] and [+1/YES] keys 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.



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



#### Try This:

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

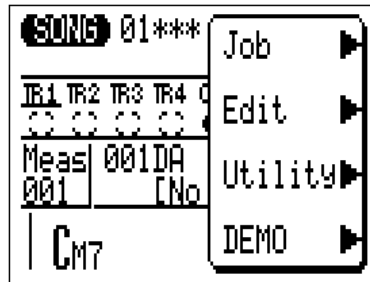
← This is the transpose parameter.

Use   to set.

⑥ [MENU] and Function Keys



The [MENU] key calls a menu of functions or sub-modes that can be accessed from the current QY22 mode, and the function keys (the small round yellow keys) select the corresponding item from the menu that appears on the display.



↑  
Press to see  
job list.

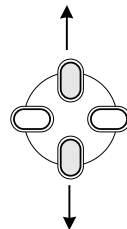
**Try This:**

Select the SONG mode display (use the [MODE] key, as described above), then press the [MENU] key. You should see the menu shown to the left.

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



Move cursor up.

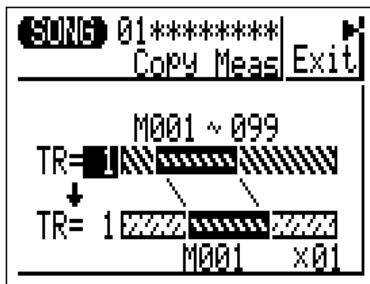


Move cursor down.

You can now use the cursor keys (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] key, below.



#### ⑦ [ENTER] Key



In addition to “entering” chords in SONG and PATTERN modes (which we’ll learn about later), the [ENTER] key 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 keys, above, you should now have the SONG mode Job List on your QY22 screen. Use the cursor keys (up and down only) to select job number 2 “Copy Meas”. Now press the [ENTER] key to actually engage the copy measure job — the display should appear as shown to the left.

Since we don’t really want to use the copy measure job, press the [MODE] key to go back to the SONG mode. You could also press the top function key (next to “Exit ►” on the display) to first move back to the Job List, and then again to return to the SONG mode.

#### ⑧ Sequencer Keys

The sequencer keys 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 key to engage the record ready mode. You have to press START/STOP to actually start recording.

**MOVE BACK**

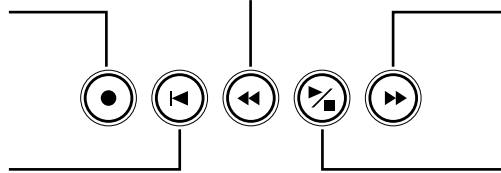
Press briefly to move back one measure, or hold for continuous scrolling.

**MOVE FORWARD**

Press briefly to move forward one measure, or hold for continuous scrolling.

**GO TO TOP**

This key takes you straight to the first measure ("top") of the current song or pattern.

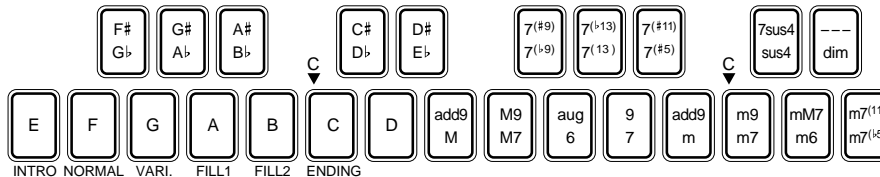


**START/STOP**

Press to start or stop recording or playback.

9 **Micro Keyboard**

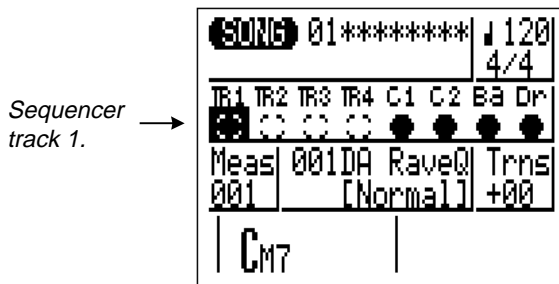
This tiny 2-octave keyboard makes it possible to program the QY22 anywhere, anytime, without having to connect an external MIDI keyboard. It's even polyphonic, so you can directly enter chords as well as single notes. The only thing it lacks is velocity sensitivity. The QY22 does, however, accept velocity information from an external MIDI keyboard.



When programming the 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 keys to place the cursor at the sequencer track 1 position (“TR1” on the display).



Now play the micro keyboard. You should hear the voice that is currently assigned to sequencer track 1. Also try moving the cursor to the accompaniment bass (“Ba”) and drum (“Dr”) tracks and playing the currently assigned bass and drum voices. In the SONG mode, the micro keyboard plays the voice assigned to the currently selected track (unless you’re recording the accompaniment chord tracks, in which case it is used to specify chords).

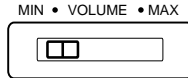
**10 Octave Keys**



Since the 2-octave range of the micro-keyboard is not enough for serious music programming, the [OCT DOWN] and [OCT UP] keys 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] key is pressed the pitch of the keyboard is shifted down by one octave, until the lower limit is reached. The [OCT UP] key shifts the pitch of the keyboard up in the same way.

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

#### ⑪ VOLUME Control



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



*Set the VOLUME control to “MIN.” when connecting the QY22 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!).*

## Play the Demo

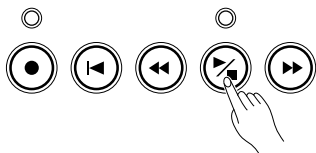
Once you've set up your QY22 and become familiar with the controls, you might like to play back the pre-programmed demonstration to hear what the QY22 can do.



- 1 From the SONG or VOICE mode display (use the [MODE] key to select) press the [MENU] key.



- 2 Press the function key immediately next to "DEMO" on the display. The initial demo display should appear.



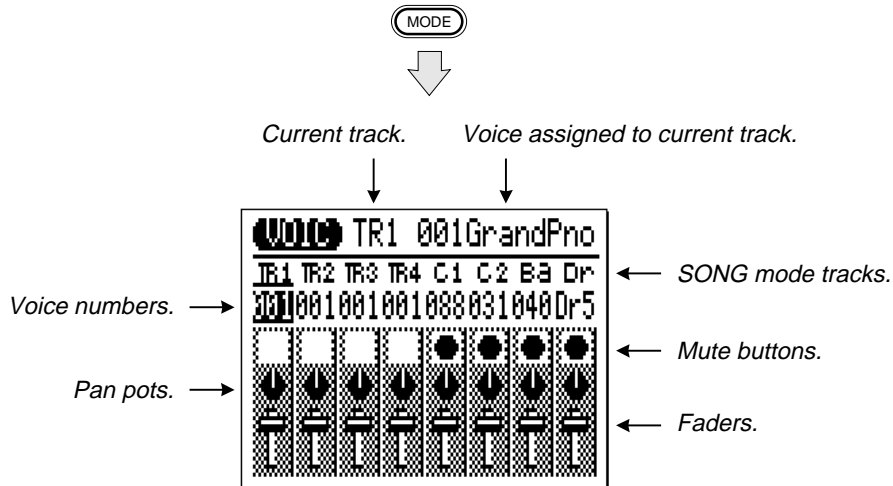
- 3 Press the [▶/■] key to start demo playback. The demo will play repeatedly until stopped.
- 4 Press the [▶/■] key to stop the demo, then press the [MODE] key to return to the mode from which the demo was engaged.

# *The VOICE Mode: Selecting, Playing, & Assigning the QY22 Voices & Drums*

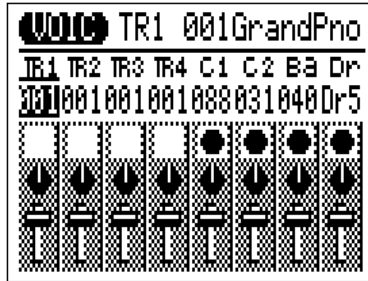
|   |    |
|---|----|
| Try Out the Voices .....                | 37 |
| Making Voice-to-Track Assignments ..... | 38 |
| The Mute Buttons .....                  | 38 |
| The Pan Pots .....                      | 39 |
| The Faders .....                        | 40 |



The QY22 has 128 voices and 8 drum kits that can be selected, played, and assigned to the SONG mode tracks in the VOICE mode. The voice mode also features a graphic on-screen “mixer” that has mute buttons, pan pots, and faders for each track.

Use the **[MODE]** key to select the VOICE mode display.



## Try Out the Voices



Use   to select voice numbers.

Move the cursor to the voice number immediately below “TR1” on the display (as in the display shown to the left). Note that the name of the voice currently assigned to TR1 appears in the upper right corner of the display. Play the micro keyboard and you’ll hear that voice.



*In any QY22 mode, the micro keyboard plays the voice assigned to the currently selected track. A MIDI keyboard connected to the MIDI IN connector, however, will only play the voice assigned to the track that receives on the MIDI channel that the external keyboard is transmitting on: MIDI channel 1 plays **TR1**, channel 2 plays **TR2**, channel 3 plays **TR3**, channel 4 plays **TR4**, channel 5 plays **C1**, channel 6 plays **C2**, channel 7 plays **Ba**, and channel 10 plays **Dr**. Channel 10 also plays any other track to which a drum voice (“Dr1” through “Dr8”) is assigned.*

Use the [+1/YES] key to step through the QY22’s 128 voices (you can use the [-1/NO] key to step backward, too), trying out each voice on the keyboard.

Keep incrementing past voice number 128 and you’ll select drum kits 1 through 8 (“Dr1” through “Dr8” on the display). Try these out on the keyboard, too.



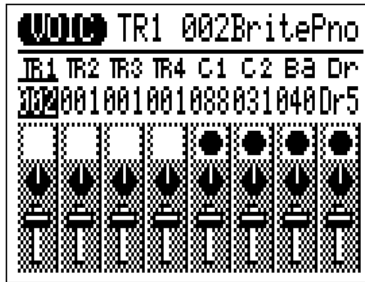
*See the Appendix (page 176) for a complete list of note assignments (i.e. which drum instruments are assigned to which notes) for all 8 drum kits.*



*If you’re playing the micro keyboard, use the octave keys to access the full range of instruments in each drum kit.*



## Making Voice-to-Track Assignments



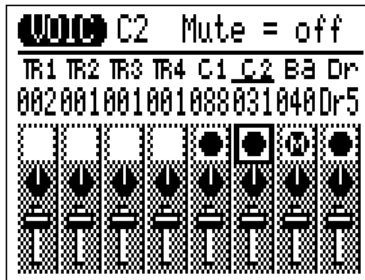
When you record accompaniments (⇔ page 52) or complete songs (⇔ page 108) in the SONG mode, you'll need to specify which voices are to be played by which tracks. These assignments are made in the VOICE mode. To assign voices to the sequencer and accompaniment tracks, simply move the cursor to the voice number of the desired track, then use the [-1/NO] and [+1/YES] keys to select the voice (or drum kit) for that track.



*When a different pattern is selected in the SONG mode, the voice assignments for that pattern are automatically recalled, overriding any voice assignments made in the VOICE mode (the pan and volume settings are not changed).*

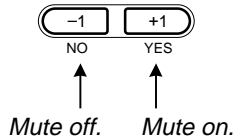
*In the VOICE mode, any of the Normal voices (001...128) or Drum voices (Dr1...Dr8) can be assigned to any of the sequence tracks. However, in the SONG EDIT mode, only the Normal voices (001...128) can be assigned to sequencer tracks using the Program Change function. If you want to use a Drum voice in a sequencer track, use the VOICE mode to assign a Drum voice to the desired track.*

## The Mute Buttons



The mute “buttons” below the voice number for each track can be used to mute (turn off) the corresponding track. Move the cursor to the appropriate mute button, then press [+1/YES] to mute that track, or press [-1/NO] to turn a muted track back on.

The letter “M” appears in the mute buttons of tracks that are muted. Tracks that do not contain data cannot be muted, and their mute buttons appear as white rather than dark blocks. In the display to the left, for example, TR1 through TR4 contain no data and are therefore white. The Ba track has been muted, and the cursor is currently over the C2 track mute button.

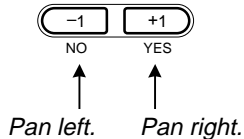
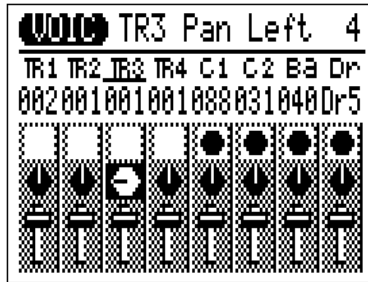


Note that the status of the mute button over which the cursor is located is also indicated in the upper right corner of the display (in this example, “Mute = off” for the C2 track).



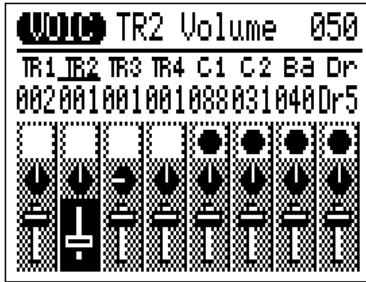
The mute buttons are a handy way to simply turn tracks that you don't want to hear off. When recording songs or patterns, they also make it possible to mute a “busy” track that might make it difficult to hear an important accompaniment track.

## 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] keys to set the pan position. The graphic pan pot will rotate to the corresponding position. The pan positions also have numeric values (1 through 7) that appear in the upper right corner of the display: “Left 7” is full left and “Right 7” is full right. In the display to the left, TR3 is panned about half way to the left (“Left 4”).

## The Faders



Lower volume.      Raise volume.

Each track has a graphic “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] keys 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. In the display to the left, the TR2 fader has been set to a quiet “50.”



*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!*

# *Easy Accompaniment for Other Instruments*

|  |           |
|--|-----------|
| <b>Selecting &amp; Playing the Preset Patterns .....</b> | <b>42</b> |
| Changing Chords .....                                    | 47        |
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## Selecting & Playing the Preset Patterns

Using the QY22 preset patterns you can easily create accompaniments that you can play or sing along with.

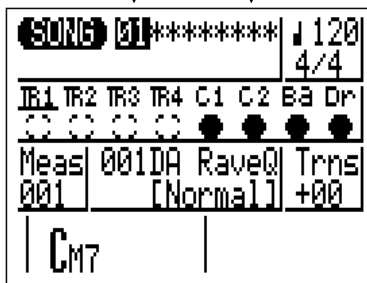
The QY22 has 100 preset accompaniment patterns covering a wide variety of musical styles. Here's how you can select and play the patterns while in the SONG mode.

### 1 Select the SONG mode and an “empty” song.

Song number (1 ... 20).

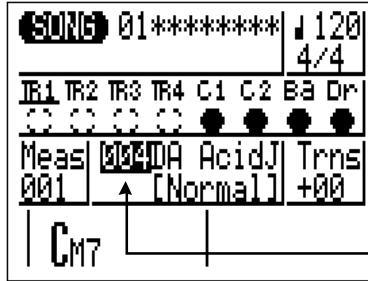
Use  to set.

Asterisks (\*) indicate an empty song.



In order to select and play the patterns as described in this section you must select an empty song (i.e. one in which nothing has been recorded). Empty songs are indicated by a row of asterisks (“\*\*\*\*\*”) following the song number. Different song numbers (1 through 20) are selected simply by moving the cursor to the song number and using the [-1] and [+1] keys.

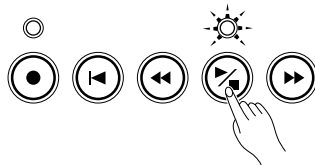
**2** Select a pattern number.



Place the cursor here (this is the accompaniment pattern number).

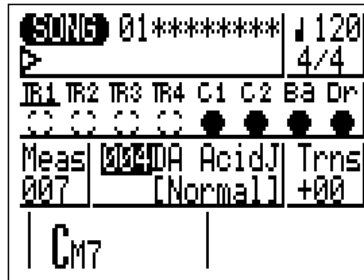
Use the cursor keys to move the cursor to the accompaniment pattern number, then use the [-1] and [+1] buttons to select the pattern you want to play. The preset patterns are numbers 001 through 100.

**3** Start playback.



Play indicator. →

Measure number. →



Note that the “Meas” (measure) number on the display advances as each measure is played. In this mode playback will continue up to measure “999” and then repeat from measure “001”.

**4 Listen to the pattern’s variations.**

Each preset pattern has 6 variations or “sections” — INTRO, NORMAL, VARI., FILL1, FILL2, and ENDING.

**INTRO** ..... introduction

**NORMAL** .... normal pattern, used for the “verse” of a song.

**VARI.** ..... variation, normally used as a chorus or bridge.

**FILL1** ..... fill-in 1, transition from normal to variation.

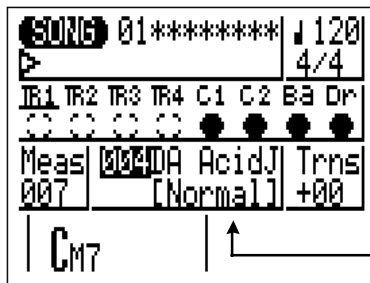
**FILL2** ..... fill-in 2, transition from variation to normal.

**ENDING** ..... ending pattern.

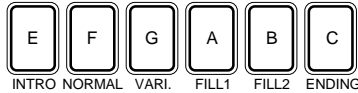


*When the INTRO, FILL1, and FILL2 sections are selected while playing a pattern in the SONG mode, the section plays through once and is automatically followed by either the NORMAL or VARI. pattern. INTRO is followed by NORMAL, FILL1 is followed by VARI. and FILL2 is followed by NORM. The FILL1 and FILL2 patterns automatically provide smooth, “musical” transitions between the NORMAL and VARI. sections. Playback stops automatically after the ENDING section.*

The currently selected section is shown between square brackets below the pattern number and name.



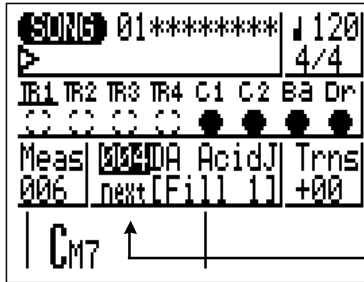
*The “Normal” selection is currently playing.*



You can change patterns directly by pressing the appropriate key on the micro-keyboard while the cursor is located at either the pattern number or the section name on the display.

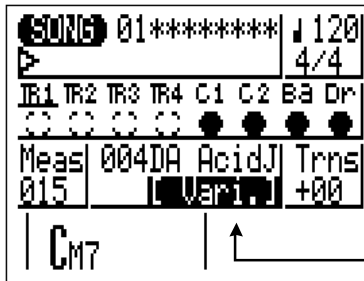


The micro-keyboard section keys do not produce any sound when used to switch sections.



The newly selected section will begin playing from the top of the next measure. “next” will appear below the pattern number until the new section actually begins playing.

“Fill1” has been selected and will begin playing from the top of the next measure.



You can also change sections by placing the cursor over the section name and using the [-1] and [+1] keys.

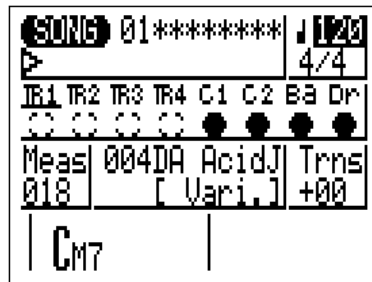


to select sections.

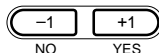


## 5 Select different patterns & sections.

With the cursor positioned over the pattern number you can use the [-1] and [+1] keys to select different patterns, and use the micro-keyboard section keys to select different sections during playback. In all cases the newly selected pattern or section will begin playing from the top of the next measure. “next” will appear below the pattern number until the new pattern or section actually begins playing.



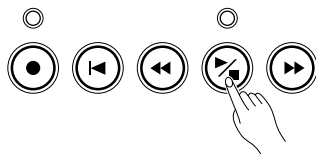
If you move the cursor to the tempo parameter (indicated by a note symbol and a number in the upper right corner of the display), you can use the [-1] and [+1] buttons to set the playback tempo to anywhere from 30 to 250 beats per minute. Please note, however, that if you play a pattern that has a slow default tempo at a fast tempo, some notes may be un-naturally cut off.



to set tempo from 30 to 250 beats per minute.

## 6 Stop playback when done.

Stop playback at any time by pressing the [▶/■] key. For a more musical ending, select the ENDING section. Playback will stop automatically after the ENDING section.



Depending on the selected pattern, some voices may not sound if a pattern is started from a point in the middle of the pattern rather than at the beginning.

## Changing Chords

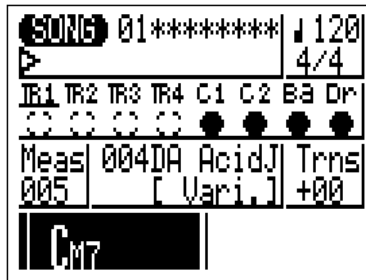
The QY22 features a sophisticated ABC (Auto Bass Chord) system that automatically re-harmonizes the chord and bass tracks to match chords you specify. This makes creating complete accompaniment tracks fast and easy ... just select a pattern, then specify the required chord changes (details in the next section). Here's how you use the micro-keyboard to specify chord changes.

### 1 Play a pattern.

Select and play one of the preset patterns, as described in the preceding section.

### 2 Move the cursor to the chord symbol.

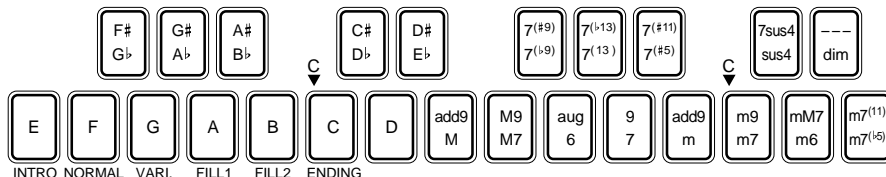
The micro-keyboard can be used to enter chords only when the cursor is located over the chord symbol on the display. Use the cursor keys to move the cursor to the chord symbol at the bottom of the display.



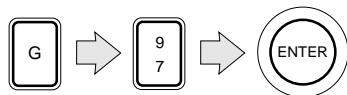
↑  
Chord symbol.

### 3 Enter a chord.

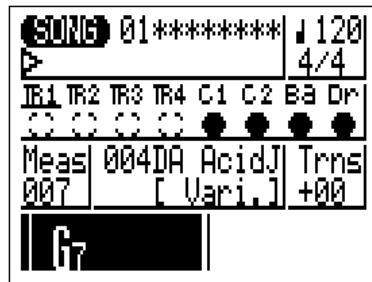
Note that the lower octave of the micro-keyboard has chord root names “E” through “D” marked on the keys, and the upper octave keys are marked with a variety of chord types.



**Example:** Enter a G7 chord.



To enter a chord, press the key corresponding to the desired chord root, then the key corresponding to the desired chord type (the chord type keys alternately select the lower and upper chord types marked ... watch the display), and finally the [ENTER] key.



The chord is actually entered only when the [ENTER] key is pressed. Until the [ENTER] key is pressed, the newly specified chord root and type will flash on the display.



Actually, you can press the chord type key and then the root key, the order doesn't matter.

## The Chord Types

|            |                      |             |                                  |
|------------|----------------------|-------------|----------------------------------|
| add9 ..... | major added ninth.   | m7(11) ..   | minor seven eleven.              |
| M .....    | major.               | m7(♭5) ..   | minor seven flat five.           |
| M9 .....   | major ninth.         | 7(#9) ..... | seventh sharp nine.              |
| M7 .....   | major seventh.       | 7(♭9) ..... | seventh flat nine.               |
| aug .....  | augmented.           | 7(♭13) ...  | seventh flat thirteen.           |
| 6 .....    | sixth.               | 7(13) ..... | seventh thirteen.                |
| 9 .....    | ninth.               | 7(#11) ...  | seventh sharp eleven.            |
| 7 .....    | seventh.             | 7(#5) ..... | seventh sharp five.              |
| add9 ..... | minor added ninth.   | 7sus4 ....  | seventh suspended four.          |
| m .....    | minor                | sus4 .....  | suspended four.                  |
| m9 .....   | minor ninth.         | - - - ..... | non-ABC (see “DETAIL”<br>below). |
| m7 .....   | minor seventh.       | dim .....   | diminished.                      |
| mM7 .....  | minor major seventh. |             |                                  |
| m6 .....   | minor sixth.         |             |                                  |



*The “- -” chord type marking is a special “non-ABC” type that can be used to create accompaniment patterns without the harmonic limitations of the ABC system. See page 95 for details.*



*If you enter only the chord root without a chord type, the result will be a major chord.*

**4 Try out the various chords with different patterns.**

During playback you can move the cursor up to the pattern number, select a different pattern, then move the cursor back to the chord symbol and try different chords with the new pattern.

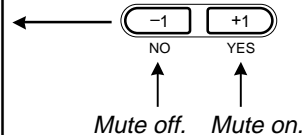
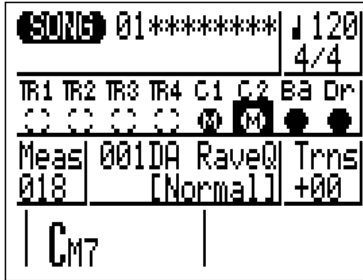


*If you move the cursor to the “Trns” (transpose) parameter, you can use then [-1] and [+1] buttons to transpose the pitch of the entire pattern up or down in semitone increments over a range of two octaves. A transpose setting of “+00” produces normal pitch.*

**5 Stop playback when done.**

Stop playback by pressing the [▶/■] key. You can also stop playback after an appropriate ending by selecting the ENDING section (the cursor must be on the pattern number or section name to do this).

## Muting Tracks



The mute “buttons” below each track name can be used to mute (turn off) the corresponding track, either while playback is stopped or running. Move the cursor to the appropriate mute button, then press [+1/YES] to mute that track, or press [-1/NO] to turn a muted track back on.

The letter “M” appears in the mute buttons of tracks that are muted. Tracks that do not contain data cannot be muted, and their mute buttons appear as white rather than dark blocks. Please note that a dark mute button will appear reversed when the cursor is placed over it (white against the dark cursor). In the display to the left, for example, TR1 through TR4 contain no data and are therefore white. The C1 and C2 tracks have been muted, and the cursor is currently over the C2 track mute button.



*The mute buttons are a handy way to turn tracks that you don't want to hear off. In the example above, for example, the C1 and C2 tracks have been turned off, leaving only the bass and drum accompaniment. You could also mute the bass track if you just want drums.*

## Record a Complete Accompaniment

The QY22 provides two ways to record an accompaniment by specifying patterns and chords: “realtime” and “step” recording. The realtime method is the fastest and easiest, letting you record pattern and chord changes “on the fly.” The step method gives you more detailed control, and is an excellent way to add the finishing touches to an accompaniment recorded in real time.

### Realtime Accompaniment Recording

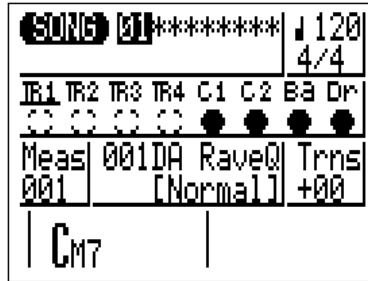
Once you know how to select patterns, sections, and enter chords in the SONG mode (see the preceding sections), recording a basic accompaniment in real time is easy. Repeats and tempo changes can be added later using the step record method (page 59).

#### **1** Select the SONG mode & an empty song.

Use the [MODE] key to select the SONG mode and, with the cursor located over the song number at the top of the display, use the [-1] and [+1] keys to select an empty song number if necessary. Empty songs are indicated by a row of asterisks (“\*\*\*\*\*”) following the song number.

MODE

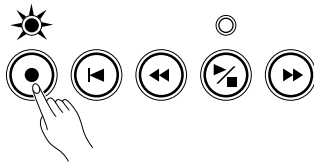
Song number (1 ... 20). Asterisks (\*) indicate an empty song.



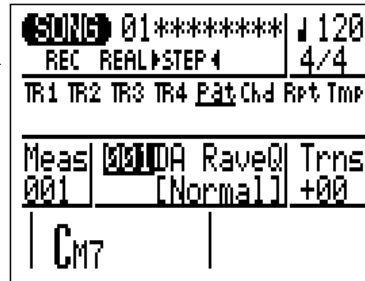
If for some reason all 20 songs contain data, use the "Clear Song" function described on page 137 to clear a song for recording.

## 2 Engage the record ready mode.

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



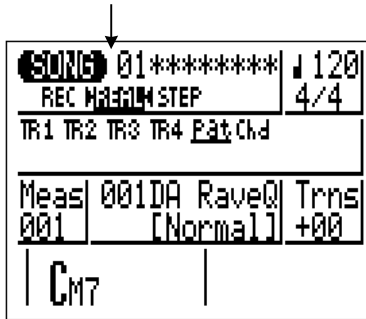
"REC" appears when the record mode is engaged.





**3 Select the realtime record mode.**

Place cursor here to select the realtime record mode.



Move the cursor to the “REC REAL STEP” area of the display, then press the left cursor key to select the “REAL” mode (if it isn’t already selected). The selected record mode is indicated by a pair of arrows on either side of the mode name — i.e. “▶REAL◀”. Once selected, move the cursor vertically to move to other areas of the screen. The arrows will remain positioned at the selected mode no matter where you move the cursor.

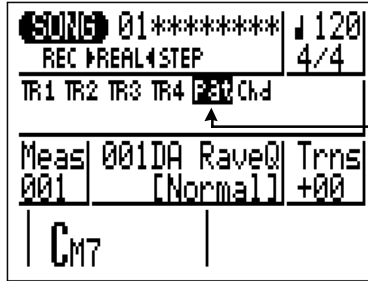
**4 Select the starting pattern, section, chord, & tempo.**

Move the cursor to the pattern number, section, chord, and tempo parameters, and set as required.



*It’s sometimes easier to set a slow tempo for realtime recording, so you have plenty of time to enter pattern and chord changes.*

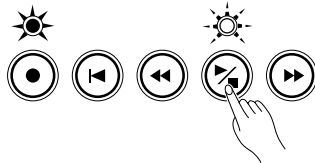
**5** Select the “Pat” track to record pattern & section changes.



Move the cursor to the track area of the display, and then shift the cursor sideways to select “Pat.” Once selected, move the cursor vertically to move to other areas of the screen. An underline will remain below the selected track no matter where you move the cursor.

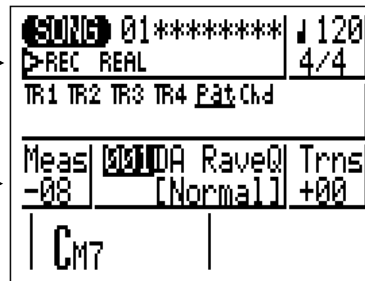
Select “Pat” to record pattern changes.

**6** Record.



Realtime recording in progress.

Minus measure numbers during count-in.



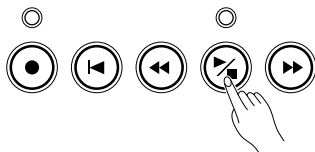
Press the [▶/■] key to begin recording pattern changes. The metronome will sound and you’ll be given a two-measure count-in prior to the first measure actually recorded. The count-in is also indicated by negative numbers in the “Meas” parameter. If a 4/4 pattern is selected, for example, the count-in will run from measure “-08” to “-01”, then recording will begin from measure “001”.

Since you selected “Pat” recording, the cursor will automatically move to the pattern number when you start recording. All you have to do to record pattern and section changes is to select the required pattern numbers via the [-1] and [+1] keys, and section changes via the appropriate micro-keyboard keys. Remember that all pattern and section changes occur from the top of the next measure after the change is entered. Also keep in mind that the INTRO will automatically switch to the NORMAL pattern, FILL1 will automatically switch to the VARI. pattern, and FILL2 will automatically switch to the NORMAL pattern.



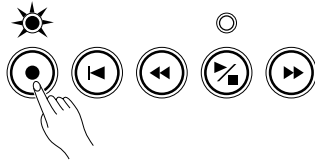
*The sequencer tracks (TR1 through TR4) will not sound during accompaniment track recording even if they contain data.*

## 7 Stop recording.



Stop recording either by pressing the [▶/■] key or by selecting the ENDING section. The normal SONG play mode is automatically re-selected when you stop recording.

## 8 Engage record ready again and select “Chd”.



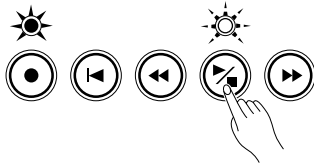
Asterisks have disappeared because the song now contains data. Use the “Song Name” job (page 135) to enter an original name.

Press the [●] key to engage the record ready mode again (the “REAL” mode will still be selected), then move the cursor to the track section of the display and select “Chd” in order to record chord changes.



Select “Chd” to record chord changes.

## 9 Record.



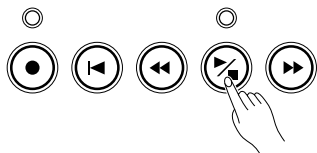
Press the [▶/■] key to begin recording chord changes. The metronome will sound and you’ll be given a two-measure count-in.

Since you selected “Chd” recording, the cursor will automatically move to the chord when you start recording. All you have to do to record chord changes is to enter the required chords as described in the “Changing Chords” section (page 47).



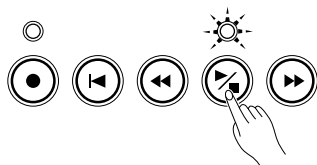
Chord changes actually occur on quarter-note divisions, so try to press the [ENTER] key to enter each chord either exactly on the beat or a fraction of a section before the beat on which you want the chord change to occur.

## 10 Stop recording.

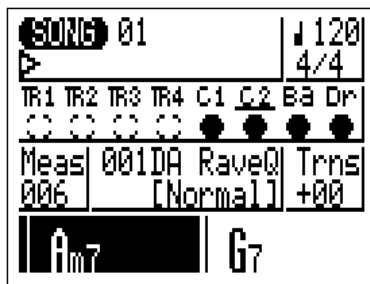


Press the [▶/■] key to stop recording when all the required chord changes have been entered. The normal SONG play mode is automatically re-selected when you stop recording.

## 11 Listen to the results.



Press the [▶/■] key to play back and check out the accompaniment you've just recorded.



↑  
"Am7" currently playing.

↑  
The next chord is "G7".



*Note that the chord currently playing is shown in the normal chord symbol location on the display, while the next chord is shown to its right. If the same chord continues for more than 2 measures, however, the next chord is not shown.*



*Don't worry if you've made a few mistakes. Simple slip-ups made in the realtime record mode can usually be corrected in the step record mode ... described next.*

## Step Accompaniment Recording

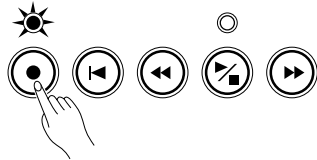
The STEP record mode provides four different accompaniment-track data-entry displays: “Pat” (pattern changes), “Chd” (chord changes), “Rpt” (repeats), and “Tmp” (tempo changes). In each of these you can individually enter or delete pattern, chord, repeat, and tempo changes at precisely the required locations.

### 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.

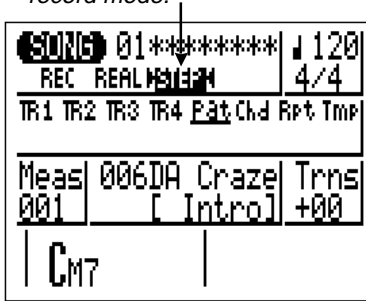
### 2 Engage the record ready mode.

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



**3 Select the step record mode.**

*Cursor here to select the step record mode.*



Move the cursor to the “REC REAL STEP” area of the display, then press the right cursor key to select the “STEP” mode (if it isn’t already selected). The selected record mode is indicated by a pair of arrows on either side of the mode name — i.e. “▶STEP◀”. Once selected, move the cursor vertically to move to other areas of the screen. The arrows will remain positioned at the selected mode no matter where you move the cursor.

**4 Select “Pat”, “Chd”, “Rpt”, or “Tmp”.**

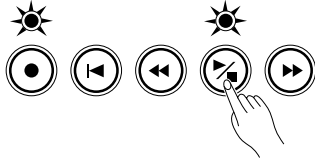


Move the cursor to the track area of the display, and then shift the cursor sideways to select “Pat”, “Chd”, “Rpt”, or “Tmp”. Once selected, move the cursor vertically if you want to move to other areas of the screen. An underline will remain below the selected track no matter where you move the cursor.

*Select “Pat” to record pattern changes, “Chd” to record chord changes, “Rpt” to record repeats, or “Tmp” to record tempo changes.*

**5 Start recording.**

Press the [▶/■] key to call the selected step record display.



**6 Enter the required pattern, chord, repeat, and tempo data.**

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



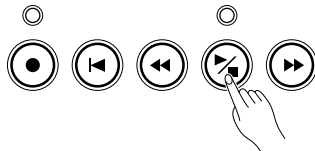
- ← Go to "Pat" screen.
- ← Go to "Chd" screen.
- ← Go to "Rpt" screen.
- ← Go to "Tmp" screen.



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

**7 Stop recording.**

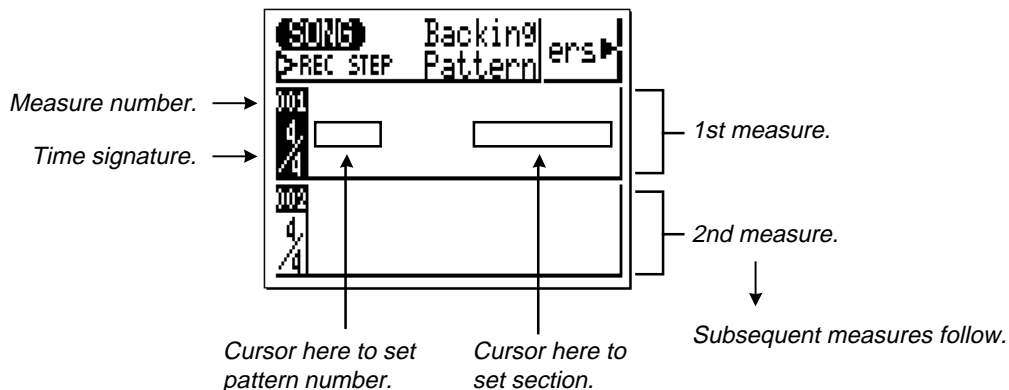
Press the [▶/■] key to exit from the step record mode and return to the normal SONG play mode.





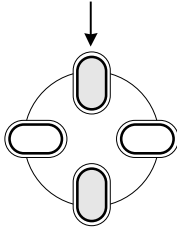
## “Pat” — Step Record Pattern Changes

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).



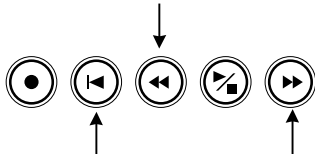
## ● Moving Around & Entering Data

*Scroll up (see lower measure numbers).*



*Scroll down (see higher measure numbers).*

*Scroll up (see lower measure numbers).*



*Go to first measure.*

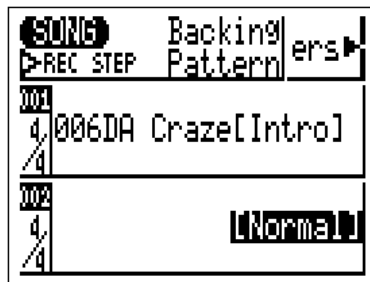
*Scroll down (see higher measure numbers).*

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

The cursor keys 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, pattern number, and section parameters.

In all of the STEP record displays the sequencer keys can also be used to move forward or backward through the song. The [◀] key takes you directly to the first measure.

### ● Pattern Number and Section



Any pattern number from 001 through 200 (presets and user patterns) can be entered for each measure. Only the preset patterns, however, have sections. The pattern name appears to the right of the pattern number. Only one 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 pattern number, only the section need be entered.

In the example display to the left the intro section of pattern 006 plays for the first measure, the normal section of the same pattern is selected in measure 2.

### ● Time Signature

Although the default time signature for the selected pattern 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

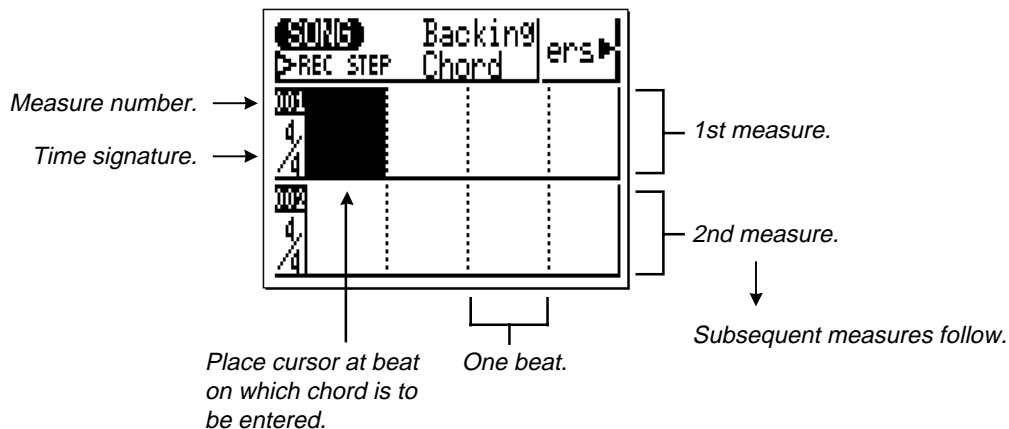
The function key immediately to the right of “ers” on the display can be used to erase the time signature, pattern number, or section data at which the cursor is located. If you erase a time signature change, the default time signature value for the current pattern will be automatically re-selected.



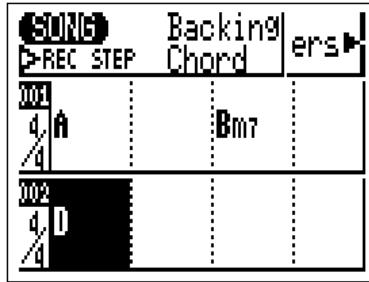
← Press to erase pattern, section, or time signature change at cursor location.

## “Chd” — 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).



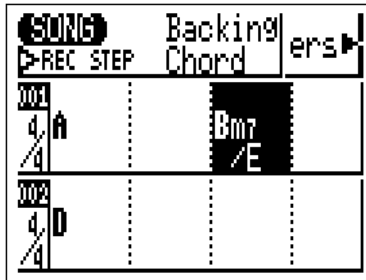
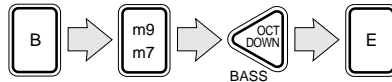
## ● Chords



One chord can be entered per quarter note. Place the cursor at the required quarter-note division on the display and enter the chord via the micro-keyboard in the normal way (see page 48). In the example display to the left, 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.

## ● Specifying the Bass Note For a Chord

*Example:* Enter a Bm7 chord with E in the bass.



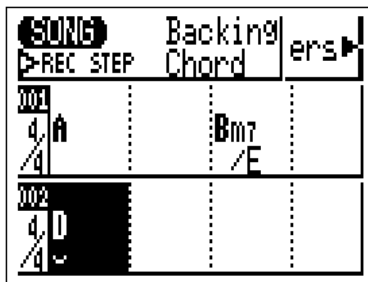
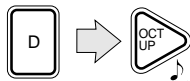
You can specify the bass note to be used with any chord by using the [OCT DOWN] key (note the “BASS” marking below the key). Enter the chord in the normal way, press the [OCT DOWN/BASS] key (a slash will appear below the chord name), then press the key on the micro-keyboard corresponding to the desired bass note (the bass note will appear to the right of the slash).



*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] key to specify the bass note. A bass note can be removed from a chord by placing the cursor at the chord and either re-entering the chord or pressing the [OCT DOWN/BASS] key twice.*

## ● Syncopated Chords

**Example:** Enter a syncopated D chord.

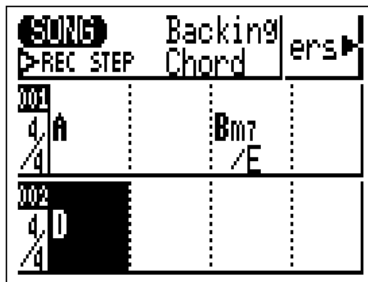


Chords can be syncopated (i.e. the chord actually begins an eighth-note before the beat on which it is entered) by using the [OCT UP] key (note the “♪” marking below the key). Enter the chord in the normal way, then press the [OCT UP] key (a syncopation symbol will appear below the chord name).



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] key. Syncopation can be removed from a chord by placing the cursor at the chord and pressing the [OCT UP] key.

## ● Erasing Chords



Press to erase chord at cursor location.

● **The Chord Display During Playback**

Chord bass notes and syncopation marks appear on the display as shown in the SONG playback mode.

Half-note indicates length of chord. →

|         |         |        |      |    |    |    |    |
|---------|---------|--------|------|----|----|----|----|
| SONG 01 |         | 4/4    |      |    |    |    |    |
| TR1     | TR2     | TR3    | TR4  | C1 | C2 | Ba | Dr |
| ○       | ○       | ○      | ○    | ●  | ●  | ●  | ●  |
| Meas    | 006DA   | Craze  | Trns |    |    |    |    |
| 001     | [Intro] |        | +00  |    |    |    |    |
| A       |         | Bm7 /E |      |    |    |    |    |

← "E" indicates that Bm7 is played with E bass.

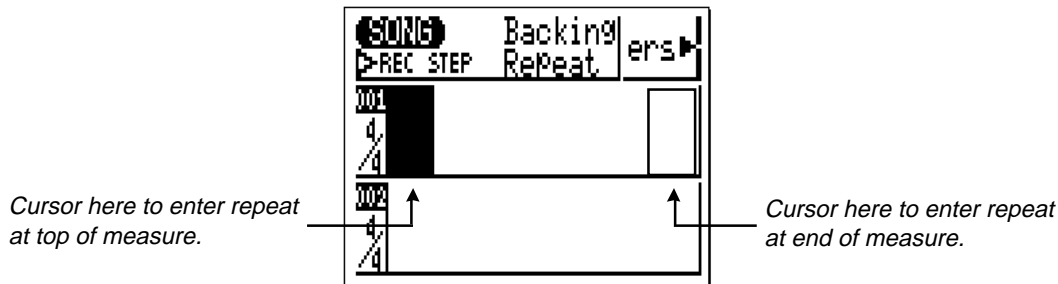
Syncopation mark. Chord actually begins 1/8-note earlier. →

|         |          |       |      |    |    |    |    |
|---------|----------|-------|------|----|----|----|----|
| SONG 01 |          | 4/4   |      |    |    |    |    |
| TR1     | TR2      | TR3   | TR4  | C1 | C2 | Ba | Dr |
| ○       | ○        | ○     | ○    | ●  | ●  | ●  | ●  |
| Meas    | 006DA    | Craze | Trns |    |    |    |    |
| 002     | [Normal] |       | +00  |    |    |    |    |
| ↓ D     |          |       |      |    |    |    |    |

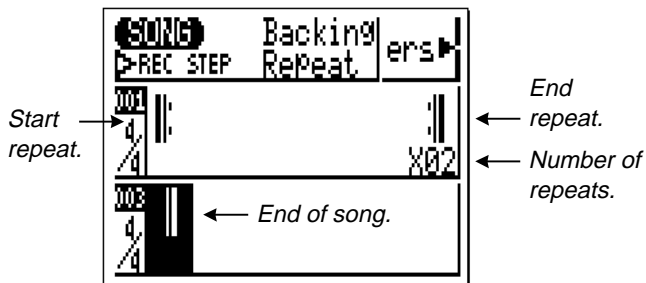


## “Rpt” — Step Record Repeats

The STEP record “Rpt” display allows three different types of repeats to be entered at appropriate points during the song: start repeat, end/number of repeats, and end song.



### ● Repeats



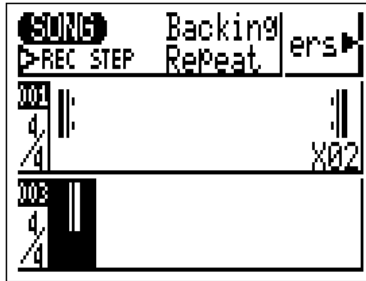
The start repeat (|:|) or end of song mark (||) can be selected via the [-1] and [+1] keys when the cursor is located at the top of the measure, and the end repeat mark (:|) can be selected when the cursor is placed at the end of the measure. When the end of repeat mark is selected the [-1] and [+1] keys are also used to select any number of repeats from 02 to 99. When “X02” is selected, for example, the sec-

tion of the song between the “||:” and “:|” marks is played twice (repeated once), then the song continues until the next repeat section or the end of the song.



You can even enter repeats within repeats (this is known as “nesting” repeats). Up to 10 repeats can be nested.

### ● Erasing Repeats



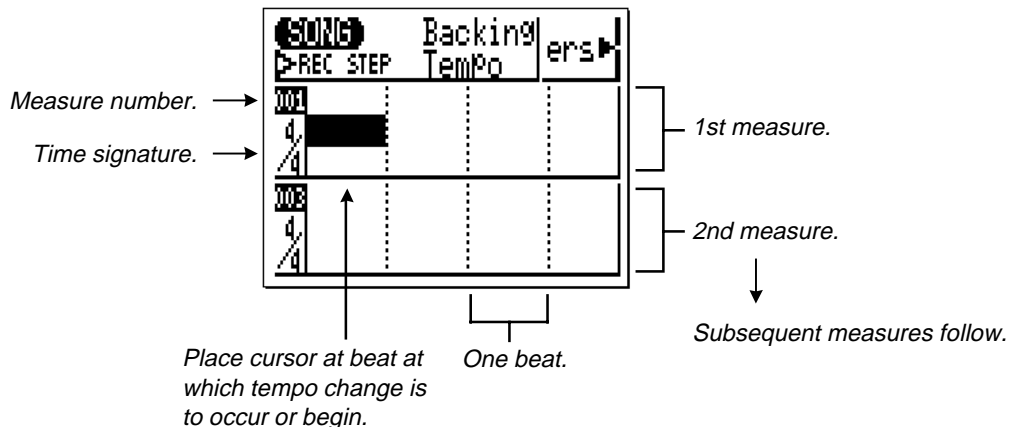
Press to erase repeat at cursor location.



Any material recorded to the accompaniment tracks in the realtime record mode after insertion of repeats will not be affected by those repeats.

## “Tmp” — Step Record Tempo Changes

The STEP record mode “Tmp” display can be used to enter instantaneous tempo changes as well as gradual ritardando and accelerando tempo changes.



## ● Tempo Changes

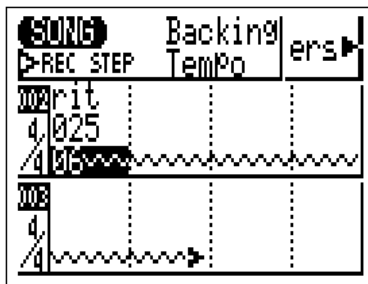
| SONG       |       | Backing | ers ▶ |
|------------|-------|---------|-------|
| ▷-REC STEP | Tempo |         |       |
| 001        |       | accel   |       |
| 4          | 010   |         |       |
| 4          | 00    |         |       |
| 002        |       | rit     |       |
| 4          | 015   |         |       |
| 4          | 00    |         |       |

← "accel" or "rit".  
 ← Amount of tempo change.  
 ← Number of beats over which tempo change occurs.

| SONG       |       | Backing | ers ▶ |
|------------|-------|---------|-------|
| ▷-REC STEP | Tempo |         |       |
| 001        | accel |         |       |
| 4          | 012   |         |       |
| 4          | 00    |         |       |
| 002        |       |         |       |
| 4          |       |         |       |
| 4          |       |         |       |

To enter gradual accelerando or ritardando changes, first set the amount of "accel" or "rit" change required, as described above, then move the cursor to the lower number and use the [-1] and [+1] keys to enter the number of beats over which you want the tempo change to occur. In the sample display to the left, the tempo will increase by 12 over two beats (the wiggly arrow extends for the specified number of beats).

Place the cursor in the center of the measure/beat at which you want the tempo change to begin, then use the [-1] key to enter a "rit" (tempo decrease) value or the [+1] key to enter an "accel" (tempo increase) value. The amount of tempo change is specified in beats per minute, so if the starting tempo is 120 and you enter an "accel" value of 10, the tempo will increase by 10 beats per minute to 130. The only limitation is that you can't enter tempo changes that result in a tempo slower than 30 or higher than 250.



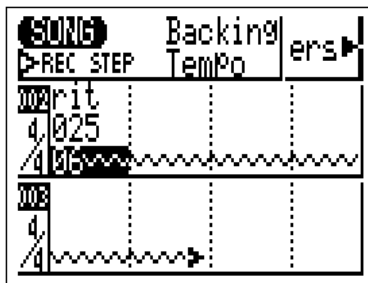
In the next sample display a ritardando of 25 beats per minute is set to occur over six beats.



*The wiggly arrow that represents the duration of the tempo change only appears within the two measures shown on the display. You can enter much longer tempo change lengths (up to a maximum of 99 measures), but the arrow will not appear when you scroll the screen to see subsequent measures.*

### ● Erasing Tempo Changes

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



← Press to erase tempo change at cursor location.

## Using the QY22 As a Drum Machine

Although you can create complete accompaniments using the preset patterns as described in the preceding section, you can also mute the C1, C2, and Ba tracks, leaving only the Dr track, so the QY22 functions as a drum machine. You can create drum-only accompaniments using the drum tracks from the preset patterns, or record original drum tracks for your own patterns, as described in the following chapter.

It's also possible to record drum voices to the sequencer tracks as described in the "Creating a Complete Song" chapter (page 108).



# *Creating Original Patterns*

## **Recording an Original ABC Pattern** ..... 78

Realtime Pattern Recording ..... 78

Step Pattern Recording ..... 86

## **Playback In the Pattern Mode** .... 94

## **Accompaniment Without the Limitations of ABC** ..... 95

## **The Pattern Jobs** ..... 96

1: Copy Pattern ..... 98

2: Quantize ..... 99

3: Transpose ..... 100

4: Modify Velocity ..... 101

5: Modify Gate Time ..... 102

6: Pattern Name ..... 103

7: Clear Track ..... 104

8: Clear Pattern ..... 105



## Recording an Original ABC Pattern

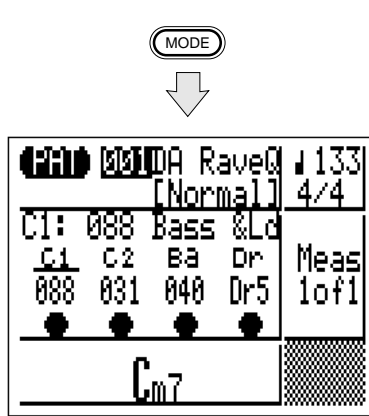
The QY22 makes it easy to create original accompaniment patterns. In addition to the pre-set patterns residing in pattern memory locations 001 through 100, the QY22 has 100 more pattern memory locations (101 through 200) which can be used to store your own creations. Like the SONG mode, the PATTERN mode provides two ways to create original patterns: realtime and step recording.

### Realtime Pattern Recording

In the realtime record mode you select the track you want to record (C1, C2, Ba, or Dr), and then play the part on the micro-keyboard or an external MIDI keyboard in real time.

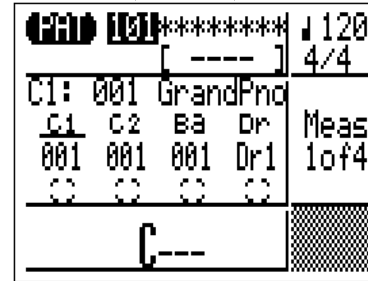
#### **1** Select the PATTERN mode & an empty user pattern.

Use the [MODE] key to select the PAT (pattern) mode and, with the cursor located over the pattern number at the top of the display, use the [-1] and [+1] keys to select an empty user pattern number (the programmable user patterns are numbered 101 through 200). Empty patterns are indicated by a row of asterisks (“\*\*\*\*\*”) following the pattern number.



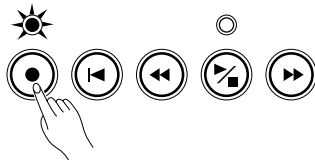
Select user pattern number (101 ... 200).

Asterisks (\*) indicate an empty pattern.



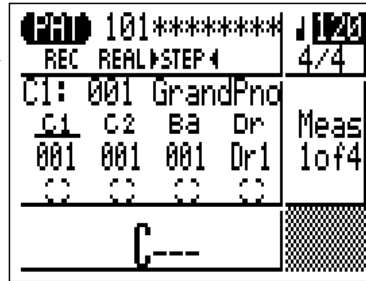
If for some reason all 100 user patterns contain data, use the “Clear Pattern” function described on page 105 to clear a pattern for recording.

**2 Engage the record ready mode.**



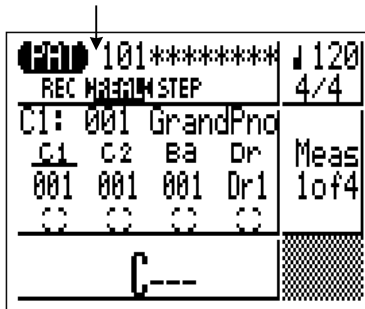
Press the [●] key to engage the record ready mode. The red LED above the [●] key will light.

"REC" appears when the record mode is engaged.



### 3 Select the realtime record mode.

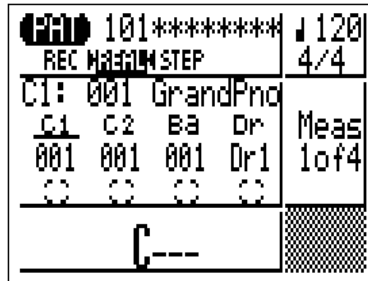
Place cursor here to select the realtime record mode.



Move the cursor to the "REC REAL STEP" area of the display, then press the left cursor key to select the "REAL" mode (if it isn't already selected). The selected record mode is indicated by a pair of arrows on either side of the mode name — i.e. "►REAL◀". Once selected, move the cursor vertically to move to other areas of the screen. The arrows will remain positioned at the selected mode.

**4** Select the record tempo, time signature, and pattern length.

Move the cursor to the tempo, time signature, and pattern length parameters and set as required using the [-1] and [+1] keys.



- ← Record tempo.
- ← Time signature: 1/16 ... 16/16,  
1/8 ... 16/8,  
1/4 ... 8/4.
- ← Length of pattern: "1of1" ... "1 of 8"  
(max. length 8 measures).



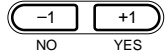
*It's sometimes easier to set a slow tempo for realtime recording, so you have plenty of time to enter the data.*

**5** Select the track to record and the voice for that track.

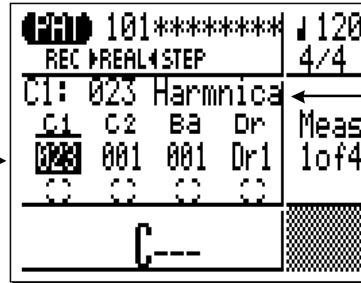
Move the cursor to the track area of the display, and then shift the cursor sideways to select the track you want to record: "C1" = chord 1, "C2" = chord 2, "Ba" = bass, "Dr" = drums. Once the track has been selected use the [-1] and [+1] keys to select the voice you want to use for that track. If you don't intend to use a track, set the voice number to "OFF."

Move the cursor vertically to move to other areas of the screen. An underline will remain below the selected track.

Cursor here to select the C1 (Chord 1) track.



to select C1 voice (001 ... 128, Dr1 ... Dr8, OFF). The same applies to the C2, Ba, and Dr tracks, except that only the Dr1 ... Dr8 voices and "OFF" can be assigned to the Dr track.



Number & name of voice assigned to current track shown here.

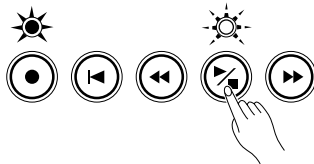


In the PATTERN PLAY or PATTERN RECORD modes, with the exception of the Drum Track, it is possible to assign any of the Normal voices (001 ... 128) or Drum voices (Dr1 ... Dr8) to any of the sequencer tracks. However, in the PATTERN EDIT mode, with the exception of the DRUM track, only Normal voices (001 ... 128) can be assigned to the other tracks using the Program Change function. Use the PATTERN PLAY or PATTERN RECORD modes to assign Drum voices to sequencer tracks.



You can also change the voice assignments later in the same way.

## 6 Record.



Press the [▶/■] key to begin recording. The metronome will sound and you'll be given a two-measure count-in prior to the first measure actually recorded. The count-in is also indicated by negative numbers in the "Meas" parameter. If a 4/4 time signature is selected, for example, the count-in will run from measure "-08" to "-01", then recording will begin from measure "001".

Realtime recording  
in progress.

|                   |     |     |     |       |
|-------------------|-----|-----|-----|-------|
| P10 101*****      |     |     |     | ♩ 120 |
| C-REC REAL        |     |     |     | 4/4   |
| C1: 023 Harmonica |     |     |     | Meas  |
| C1                | C2  | Ba  | Dr  | -08   |
| 023               | 001 | 001 | Dr1 |       |
| C2                | C2  | C2  | C2  |       |
| C---              |     |     |     | Del   |

Minus measure numbers  
during count-in.

Patterns can only be recorded in the key of C. Play the required part either on the micro-keyboard or via an external MIDI keyboard transmitting on the appropriate MIDI channel:

| MIDI Channel | Track        |
|--------------|--------------|
| 5 .....      | C1 (Chord 1) |
| 6 .....      | C2 (Chord 2) |
| 7 .....      | Ba (Bass)    |
| 10 .....     | Dr (Drums)   |

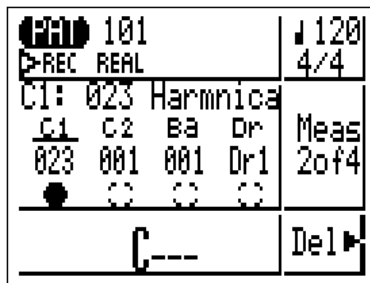
The pattern will continue to repeat from the first to last measure, so you can continue to add notes until the current part is complete.



Since your original ABC pattern will be automatically re-harmonized as required by the QY22 ABC system, there are a few rules you should follow to ensure the best results:

- 1: You're recording in C, so think in C.
- 2: Use primarily the root, 3rd, 5th, and major 7th.
- 3: Keep it rhythmic ... avoid melodic lines.

**7 Delete mistakes as required.**

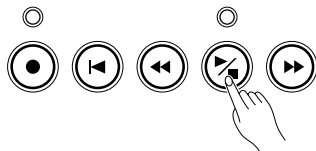


To delete mistakes, simply play the note to be deleted on the micro-keyboard while holding the function key next to “Del” on the display. All corresponding notes that occur while the micro-keyboard key is held will be deleted.

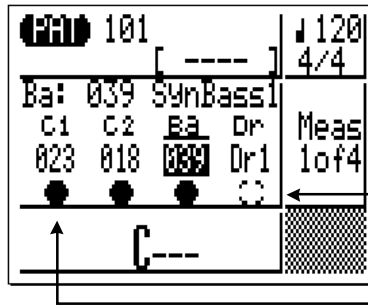
Press while holding a note on the micro-keyboard to delete all occurrences of that note for as long as the note is held.



**8 Stop recording.**



Press the [▶/■] key to stop recording. The normal PAT play mode is automatically re-selected when you stop recording.



Note that when you return to the PAT play mode the block below each track that contains data will be filled (dark) while the blocks below empty tracks are empty (outline only).

Track empty.

Track contains data.

### 9 Record the remaining tracks.

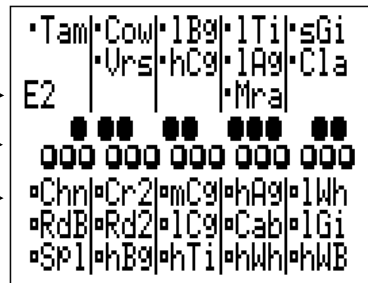
Complete the pattern by selecting the remaining tracks, assigning the required voices, and recording as described in steps 5 through 8, above.

The pitch of the lowest micro-keyboard key (changes when the octave keys are used).

Micro-keyboard.

Drum instruments currently played by the corresponding micro-keyboard keys.

Hold **[MENU]** and press **[MODE]**



As long as the record mode is not engaged you can press the **[MODE]** key while holding the **[MENU]** key to see the current pitch of the micro-keyboard as determined by the **[OCT DOWN]** and **[OCT UP]** keys, and a list of the drum instruments currently played by the micro-keyboard keys.



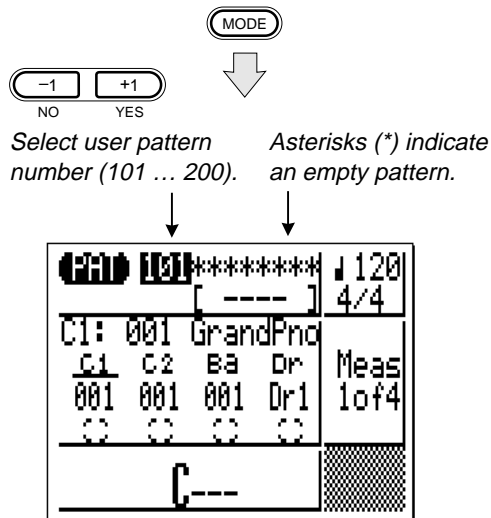
See the “Editing Songs & Patterns” section , page 140, for information on how to edit recorded pattern data.



## Step Pattern Recording

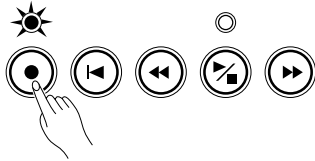
The step pattern record mode lets you enter each track note-by-note, with precise control over the timing, length, and loudness of each note. You can record entire tracks using the step mode, or use it to brush-up and add data to an existing track.

### 1 Select the PATTERN mode & a user pattern.



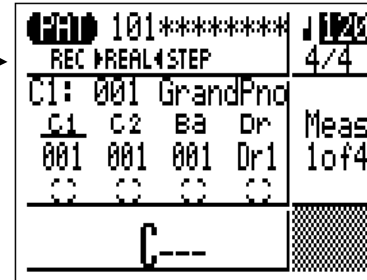
Use the [MODE] key to select the PAT (pattern) mode and, with the cursor located over the pattern number at the top of the display, use the [-1] and [+1] keys to select the pattern you want to record (the programmable user patterns are numbered 101 through 200). You can select an empty pattern if you want to record a new pattern using the STEP mode, or a pattern that already contains data if you want to edit or add new data to the pattern.

## 2 Engage the record ready mode.



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

"REC" appears when the record mode is engaged.



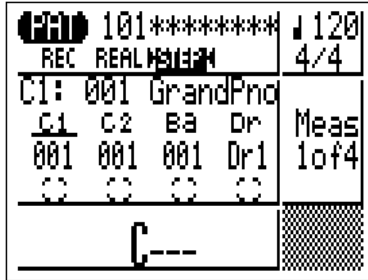
## 3 Select the step record mode.

Place cursor here to select the step record mode.



Move the cursor to the “REC REAL STEP” area of the display, then press the right cursor key to select the “STEP” mode (if it isn’t already selected). The selected record mode is indicated by a pair of arrows on either side of the mode name — i.e. “▶STEP◀”. Once selected, move the cursor vertically to move to other areas of the screen. The arrows will remain positioned at the selected mode.

**4 Set time signature and pattern length (new patterns only).**



If you are recording a new pattern, move the cursor to the time signature and pattern length parameters and set as required.

← Time signature: 1/16 ... 16/16,  
1/8 ... 16/8,  
1/4 ... 8/4.

← Length of pattern: "1of1" ... "1 of 8"  
(max. length 8 measures).



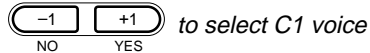
The time signature and pattern length parameters can not be changed if the selected pattern already contains data.

**5 Select the track to record and the voice for that track.**

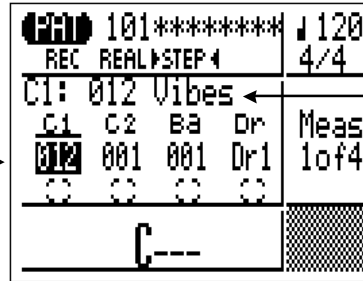
Move the cursor to the track area of the display, and then shift the cursor sideways to select the track you want to record: "C1" = chord 1, "C2" = chord 2, "Ba" = bass, "Dr" = drums. If you are recording a new pattern or track, use the [-1] and [+1] keys to select the voice you want to use for that track once the track has been selected. If you don't intend to use a track, set the voice number to "OFF."

Move the cursor vertically to move to other areas of the screen. An underline will remain below the selected track.

Cursor here to select the C1  
(Chord 1) track.



to select C1 voice  
(001 ... 128, Dr1 ... Dr8, OFF).  
The same applies to the C2, Ba,  
and Dr tracks, except that only the  
Dr1 ... Dr8 voices and "OFF" can  
be assigned to the Dr track.

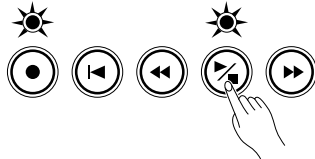


Number & name of voice assigned  
to current track shown here.



You can also change the voice as-  
signments later in the same way.

## 6 Record.

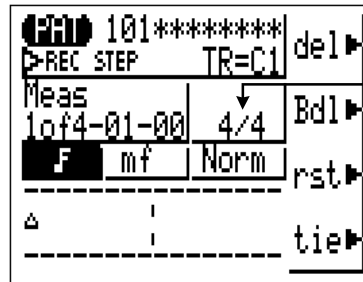


Measure/beat/clock display. →

Note parameters. →

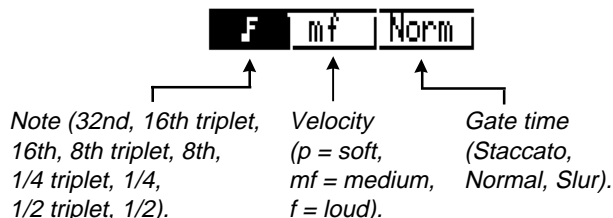
Note display. →

Press the [▶/■] key to begin recording. The step record display  
shown below will appear.



Time signature.

**7 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] keys for the first (or next) note to be entered.

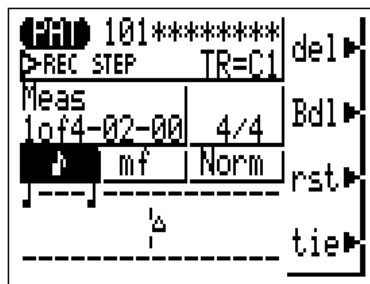


The velocity and gate time settings in the step record display correspond to the following numeric values in the edit displays (to be described later):

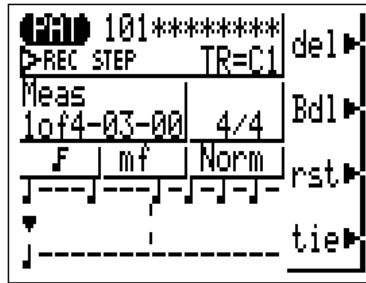
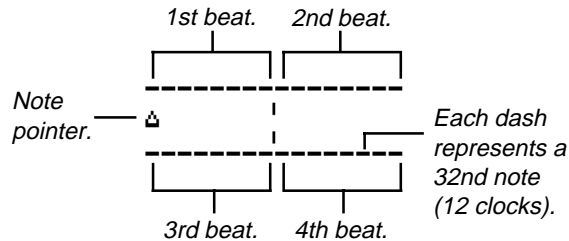
**Velocity**    "p"    = 56  
                   "mf"    = 88  
                   "f"     = 120

**Gate Time**    "Staccato" = 50% normal note length.  
                   "Normal"    = 90% normal note length.  
                   "Slur"      = 99% normal note length.

**8 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 note symbol appears on the note display and the note pointer advances to the next note position. The note symbol always appears as a 1/4-note, regardless of the actual note entered (chords are also indicated by the 1/4-note symbol). Here's how the display will look after two 8th notes have been entered.



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 Note Display

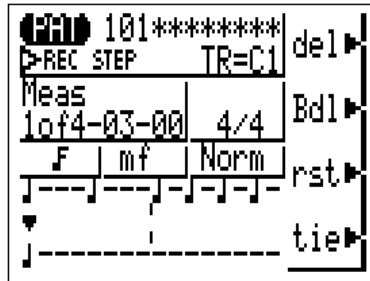
The note display shows up to four 1/4-notes worth of data at once (that's one measure in 4/4 time). If the selected time signature results in more than four 1/4 notes per measure, then the display will scroll to show the extra notes. On the other hand, if the time signature is 3/4, then the 4th beat is not used and appears as double dashes on the display (“=====”).

## 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 symbol. When you move the note pointer past the end of the note display, the next measure will appear. If you move past the last measure in the pattern, the first measure of the pattern will appear.

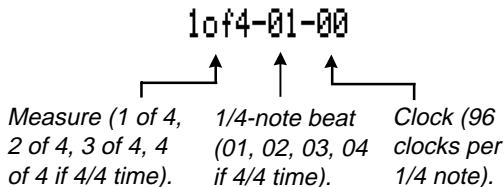
### The Step Mode Function Keys

The four function keys immediately to the right of the display provide access to a number of handy functions in the step record mode. The “del” key deletes the note or chord at the



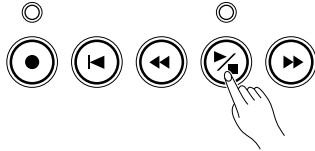
- ← *Delete note at note pointer.*
- ← *Step back by current note length and delete.*
- ← *Enter rest of current note length.*
- ← *Enter a note of the same length as the last note, tied to the last note (this effectively lengthens the last note).*

note pointer. The “Bdl” key moves the note pointer backward by the currently selected note length and deletes any notes that exist at that location. The “rst” key enters a rest of the currently selected note length at the note pointer position. And the “tie” key lengthens the previously entered note by “tying” another note of the same length and pitch to it (the “tie” key 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, 1/4-note beats, and clocks (there are 96 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.

**9 Complete the pattern.**

Repeat steps 7 and 8 until the current track of the pattern is complete, then press [▶/■] to stop recording and go back to step 5 to record the next track, as necessary.



See the “Editing Songs & Patterns” section , page 140, for information on how to edit recorded pattern data.



## Playback In the Pattern Mode

Patterns can be played in the PATTERN mode in much the same way as they are in the SONG mode.

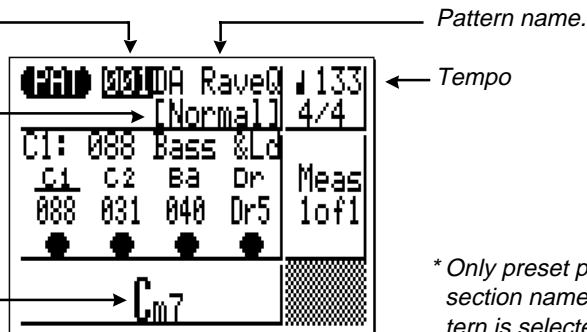
Pattern number. Sections can be changed via micro-keyboard when cursor here or on section name.\*

Section name.\*

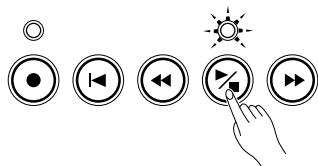
Voice numbers.

Mute buttons. Operation is the same as in the SONG mode.

Chords can be changed via micro-keyboard when cursor here.



\* Only preset patterns have sections. No section name appears when a user pattern is selected.



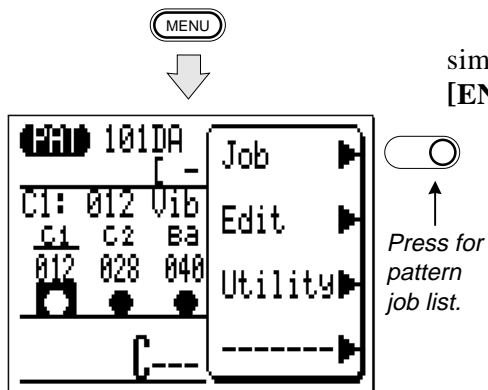
Use the [▶/■] key to start and stop playback. The main different between playback in the PATTERN mode and playback in the SONG mode is that in the PATTERN mode the sections don't switch automatically. If you select "Fill1", for example, "Fill1" will play repeatedly until a different section is selected (in the SONG mode "Vari." is automatically selected after "Fill1" plays through once). Also, only the accompaniment tracks are available for playback in the PATTERN mode.

## Accompaniment Without the Limitations of ABC

If you want total harmonic freedom in your accompaniment tracks, unrestrained by the limits of the ABC system, simply record the accompaniment for your song in sections, recording the required chord/harmonic changes directly into as many patterns as your song requires (remember, patterns can be up to 8 measures long). Then, when recording the accompaniment tracks in the SONG mode, use the “- - -” chord type so that the pattern data is played back unmodified. You might need to record several patterns containing the various chord changes you need for your song, but you don’t have to worry about how the ABC system might alter your accompaniment when it is played back.

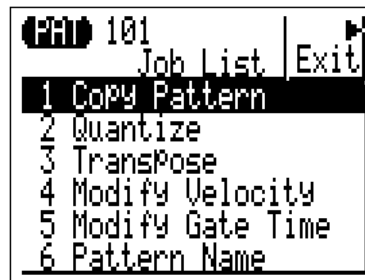
## The Pattern Jobs

The pattern mode includes 8 pattern “jobs” that perform a variety of important functions. To access and use the pattern jobs, press the **[MENU]** key while in the normal PATTERN play mode, and then press the function key next to “Job” on the display.



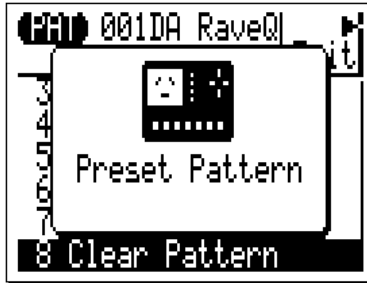
This calls the pattern job list. You can select any job on the list simply by moving the cursor to the required job and pressing **[ENTER]**.

*Pattern jobs 1 ... 6  
(cursor at top of list).*



*Pattern jobs 3 ... 8  
(cursor at bottom of list).*



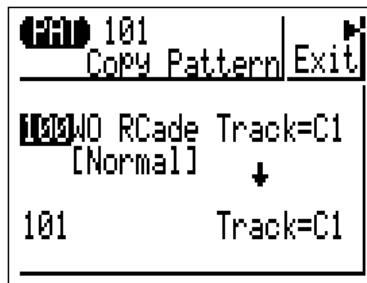


### User Patterns Only!

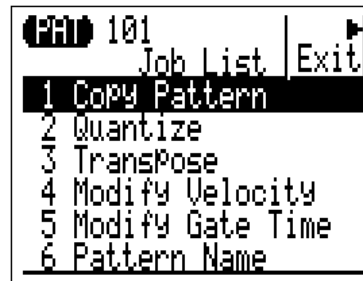
Since all of the pattern jobs modify the pattern data in some way, they can only be used on user patterns (numbers 101 through 200). If you attempt to use a pattern job while a preset pattern is selected, the error display shown to the left will appear. Press any key (except the micro-keyboard) to return to the job list.

### Returning to the Pattern Play Mode

The function button next to “Exit” on the display can be used to exit from any pattern job, and then from the job list thereby returning you to the normal pattern play mode.

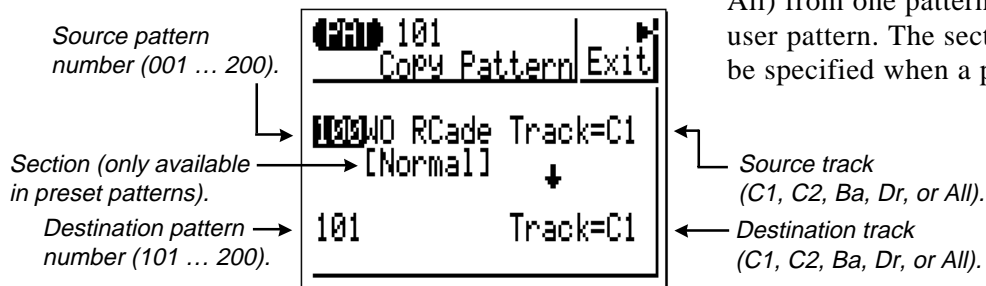


Press to exit  
to job list.

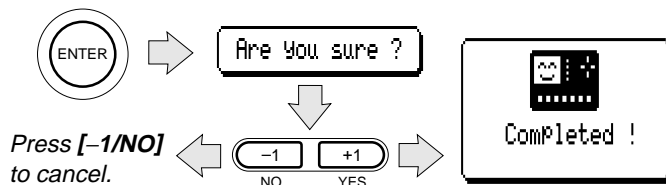


Press to exit to pattern  
play mode.

### 1: Copy Pattern



Copies a specified track (C1, C2, Ba, Dr, or All) from one pattern to the specified track in a user pattern. The section to be copied can also be specified when a preset pattern is the source.



After setting the parameters as required, press **[ENTER]**. “Are you sure?” will appear on the display. Press **[+1/YES]** to confirm that you want to go ahead with the copy operation (which will overwrite data in the destination track), or press **[-1/NO]** to cancel.

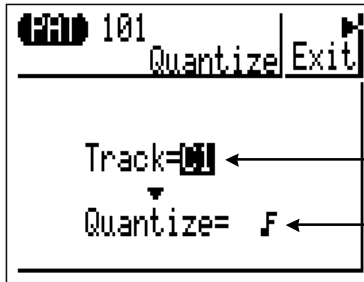


The Copy Pattern job makes it possible to use tracks from other patterns as “building blocks” to create new patterns. You can, for example, combine different tracks from different preset patterns to create a completely new “hybrid” pattern. Of course, you can also copy just one or two existing tracks and record the remaining tracks yourself. Copied tracks can be edited using the edit mode (page 140) to fit them to the pattern you are creating.



Depending on the selected pattern, some voices may not sound if a preset pattern is copied to a user pattern.

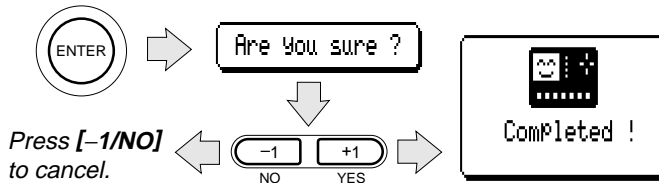
## 2: Quantize



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

Track to be quantized (C1, C2, Ba, or Dr).

Quantize note length (32nd note, 16th note triplet, 16th note, 8th note triplet, 8th note, 1/4-note triplet, 1/4-note, 1/2-note triplet, 1/2-note).



After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the quantize operation (which will irreversibly modify the data in the specified track), or press [-1/NO] to cancel.

One measure of 8th notes before quantization.

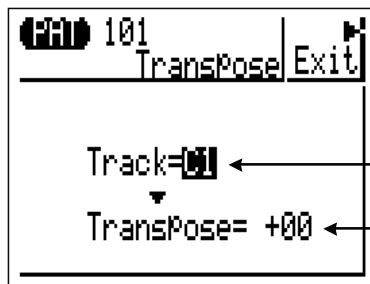


After quantization.



Quantization is generally used to tighten up sloppy timing. Use it judiciously, however, because timing that is too perfect can sound cold and mechanical — unless, of course, you’re specifically aiming for a cold, mechanical feel. Always use a quantize value that is at least as “short” as the shortest notes in the track to be quantized. If you quantize a track containing 16th notes to 1/8 (8th notes), for example, some of the 16th notes will be aligned with 8th note beats, thus ruining the track.

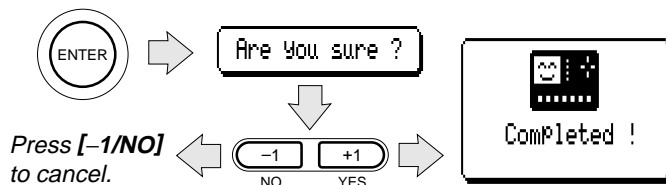
**3: Transpose**



Transposes all notes in the specified track up or down by the specified number of semitones. Minus (-) values transpose down while plus (+) values transpose up.

Track to be transposed  
(C1, C2 or Ba).

Amount or transposition in  
semitones (-12 ... +00 ... +12).



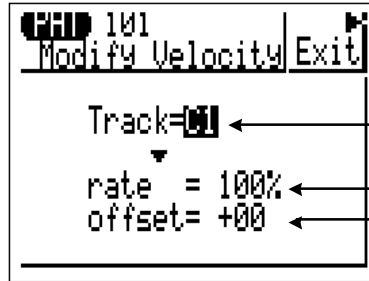
After setting the parameters as required, press [ENTER]. "Are you sure?" will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the transpose operation, or press [-1/NO] to cancel.



Of course, you can transpose all tracks as required to shift the entire pattern to a different key, but you could also transpose only the C2 track, for example, to produce an interval (and therefore harmony) between the C1 and C2 tracks.

#### 4: Modify Velocity

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



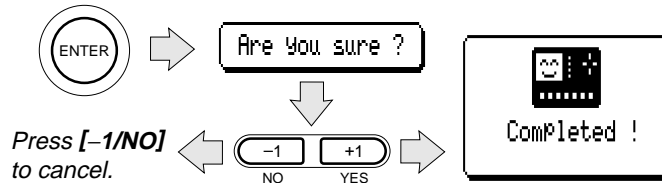
Track to be modified  
(C1, C2, Ba, or Dr).

Velocity ratio  
(000% ... 200%).

Amount of velocity  
change  
(-99 ... +00 ... +99).

The **“rate”** parameter sets the ratio between the lower and higher velocity values. A setting of “100%” maintains the original relationship between the notes, lower values produce a narrower dynamic range, and higher values produce a broader dynamic range.

The **“offset”** parameter determines the amount of velocity change. “-” settings reduce the velocity while “+” settings increase the velocity.



After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the modify velocity operation, or press [-1/NO] to cancel.

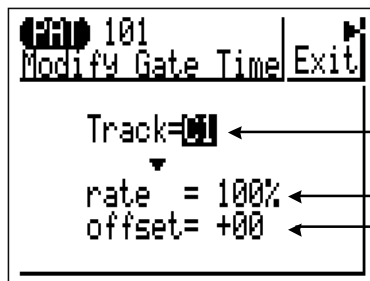


The Modify Velocity job is a great way to “soften” the sound of a pattern that has too great a variation between the softest and loudest notes, or, conversely, to add extra punch to a dull-sounding pattern. Experiment with the parameters to get a feel for what they do.



**5: Modify Gate Time**

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



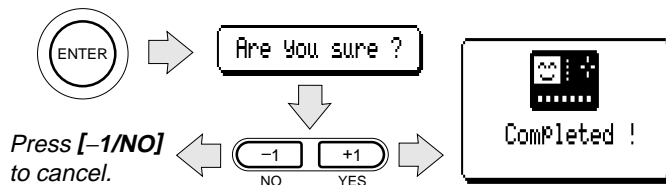
Track to be modified  
(C1, C2, Ba, or Dr).

Gate time ratio  
(000% ... 200%).

Amount of gate time  
change  
(-99 ... +00 ... +99).

The “**rate**” 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.

The “**offset**” parameter determines the amount of gate time modification. “-” settings shorten the gate time while “+” settings increase the gate time.



After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the modify gate time operation, or press [-1/NO] to cancel.



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

**6: Pattern Name**

*Character cursor. Moves forward as each character is entered, or backward when a character is deleted.*



*Name area.*

*Characters and DEL function.*

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

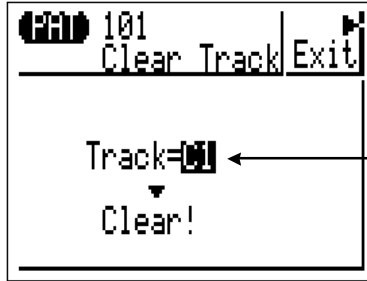
To enter a character, use the cursor keys to move the cursor to the character to be entered, then press the **[ENTER]** key. The character will appear at the character cursor location and the character cursor will advance to the next character position.

To delete the last character entered place the cursor over “DEL” at the bottom of the display and press **[ENTER]**. The character will be deleted and character cursor will move back to the last character position.

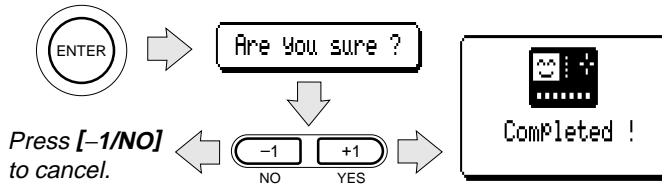
When the entire name has been entered, press the top function button next to “Exit” on the display. The new name will appear next to the pattern number at the top of the PATTERN mode display.

**7: Clear Track**

Completely clears the specified track from the currently selected pattern.



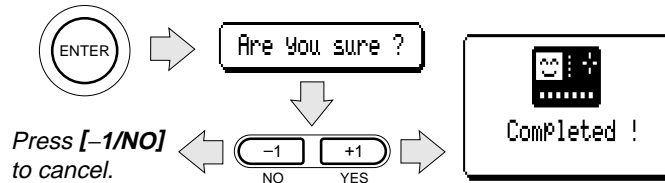
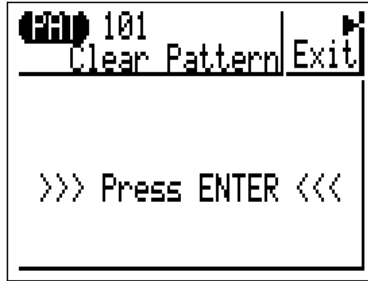
Track to be cleared (C1, C2, Ba, or Dr).



Select the track to be cleared and press **[ENTER]**. “Are you sure?” will appear on the display. Press **[+1/YES]** to confirm that you want to go ahead with the Clear Track operation (Clear Track is irreversible), or press **[-1/NO]** to cancel.

**8: Clear Pattern**

Completely clears the currently selected user pattern.



After selecting the Clear Pattern job, press **[ENTER]**. “Are you sure?” will appear on the display. Press **[+1/YES]** to confirm that you want to go ahead with the Clear Pattern operation (Clear Pattern is irreversible), or press **[-1/NO]** to cancel.



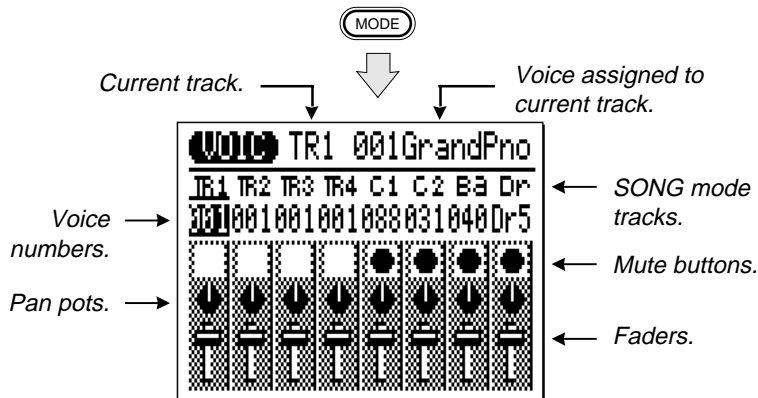
# Creating a Complete Song

|   |     |                            |     |
|---|-----|----------------------------|-----|
| <b>Recording the Sequencer Tracks</b> . | 108 | 5: Delete Measure .....    | 128 |
| Preparing to Record —                   |     | 6: Erase Measure .....     | 129 |
| Voice Assignments .....                 | 108 | 7: Transpose .....         | 130 |
| Realtime Sequencer Track                |     | 8: Move Clock .....        | 131 |
| Recording .....                         | 109 | 9: Remove Event .....      | 132 |
| Step Sequencer Track Recording.         | 115 | 10: Modify Velocity .....  | 133 |
| <b>The Song Jobs</b> .....              | 122 | 11: Modify Gate Time ..... | 134 |
| 1: Mix Track .....                      | 124 | 12: Song Name .....        | 135 |
| 2: Copy Measure .....                   | 125 | 13: Clear Track .....      | 136 |
| 3: Create Measure .....                 | 126 | 14: Clear Song .....       | 137 |
| 4: Quantize .....                       | 127 |                            |     |

## Recording the Sequencer Tracks

After recording the accompaniment tracks in the SONG mode using either the preset patterns (chapter 5, page 52) or original patterns you have created in the PATTERN mode (chapter 6, page 78), record melody lines, harmony parts, counter-melodies, or any other parts required to complete your composition on the SONG mode sequencer tracks (TR1, TR2, TR3, and TR4). The SONG mode provides realtime and step recording modes for the sequencer tracks as well as the accompaniment tracks.

### Preparing to Record — Voice Assignments



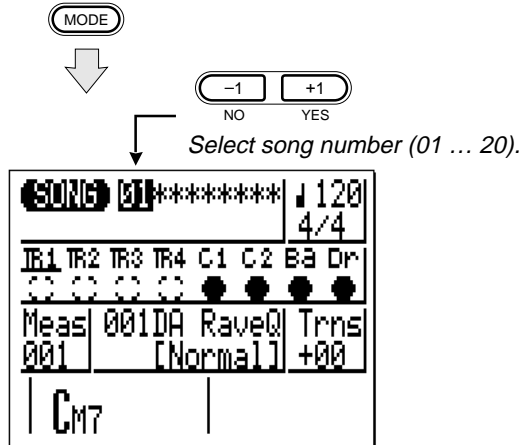
Before actually beginning to record you should switch to the VOICE mode and assign the desired voices to the SONG mode sequencer tracks (page 38). Of course, you can make these assignments later but it's better to record with the voices you actually intend to use in the song.

## Realtime Sequencer Track Recording

In the realtime record mode you select the track you want to record (TR1, TR2, TR3, or TR4), and then play the part on the micro-keyboard or an external MIDI keyboard in real time.

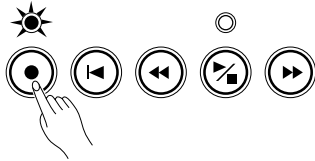
### 1 Select the SONG mode & the song to be recorded

Use the [MODE] key to select the SONG mode and, with the cursor located over the song number at the top of the display, use the [-1] and [+1] keys to select the song you intend to record.



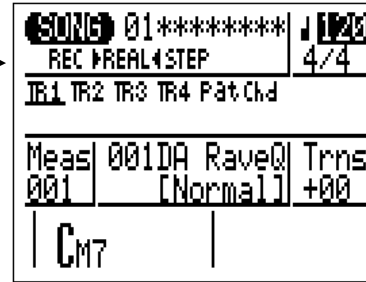


**2 Engage the record ready mode.**



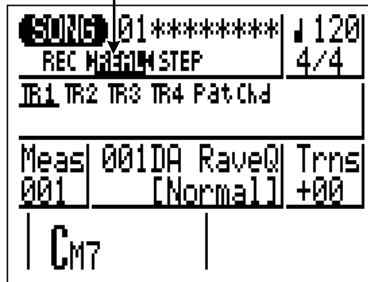
Press the [●] key to engage the record ready mode. The red LED above the [●] key will light.

“REC” appears when the record mode is engaged.



**3 Select the realtime record mode.**

Place cursor here to select the realtime record mode.



Move the cursor to the “REC REAL STEP” area of the display, then press the left cursor key to select the “REAL” mode (if it isn’t already selected). The selected record mode is indicated by a pair of arrows on either side of the mode name — i.e. “▶REAL◀”. Once selected, move the cursor vertically to move to other areas of the screen. The arrows will remain positioned at the selected mode.

**4** Select tempo and transpose parameters as required.

|               |          |                |
|---------------|----------|----------------|
| SONG 01*****  |          | 120            |
| REC REAL4STEP |          | 4/4            |
| TR1           | TR2      | TR3 TR4 PatChd |
| -----         |          |                |
| Meas          | 001DA    | Rave0 Trns     |
| 001           | [Normal] | +00            |
| -----         |          |                |
| CM7           |          |                |

Move the cursor to the tempo and transpose parameters and set as required using the [-1] and [+1] keys (since you've probably already recorded the accompaniment tracks, the time signature can't be changed).

Record tempo.

Transpose.



*It's sometimes easier to set a slow tempo for realtime recording, so you have plenty of time to enter the data.*

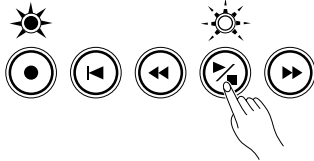
**5** Select the track to record.

Cursor here  
to select TR1  
for recording.

|               |          |                |
|---------------|----------|----------------|
| SONG 01*****  |          | 120            |
| REC REAL4STEP |          | 4/4            |
| <u>TR1</u>    | TR2      | TR3 TR4 PatChd |
| -----         |          |                |
| Meas          | 001DA    | Rave0 Trns     |
| 001           | [Normal] | +00            |
| -----         |          |                |
| CM7           |          |                |

Move the cursor to the track area of the display, and then shift the cursor sideways to select the track you want to record: TR1, TR2, TR3, or TR4. Move the cursor vertically to move to other areas of the screen. An underline will remain below the selected track.

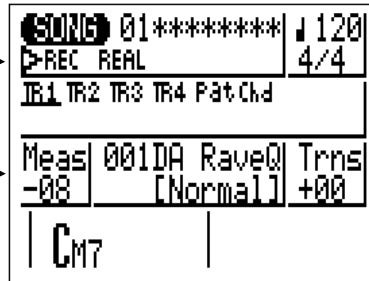
**6 Record.**



Press the [▶/■] key to begin recording. The metronome will sound and you'll be given a two-measure count-in prior to the first measure actually recorded. The count-in is also indicated by negative numbers in the "Meas" parameter. If a 4/4 time signature is selected, for example, the count-in will run from measure "-08" to "-01", then recording will begin from measure "001".

Realtime recording in progress.

Minus measure numbers during count-in.



Play the required part either on the micro-keyboard or via an external MIDI keyboard transmitting on the appropriate MIDI channel:

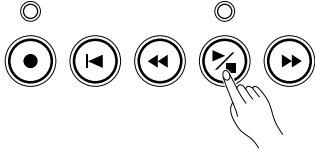
| MIDI Channel | Track |
|--------------|-------|
| 1 .....      | TR1   |
| 2 .....      | TR2   |
| 3 .....      | TR3   |
| 4 .....      | TR4   |



*If the track selected for recording contains previously-recorded data, the old data will be erased and replaced by the new data. If you want to record several separate parts to the same track (using the same voice, of course), use the "Mix Track" song job (page 124) to combine separately recorded tracks.*

**7 Stop recording.**

Press the [▶/■] key to stop recording. The normal SONG play mode is automatically re-selected when you stop recording.



Track empty.

Track contains data.

|         |     |          |      |    |      |    |    |
|---------|-----|----------|------|----|------|----|----|
| SONG 01 |     | 120      |      |    |      |    |    |
|         |     | 4/4      |      |    |      |    |    |
| TR1     | TR2 | TR3      | TR4  | C1 | C2   | BA | Dr |
| ●       | ●   | ●        | ●    | ●  | ●    | ●  | ●  |
| Meas    | 001 | DA       | Rave | Q  | Trns |    |    |
| 001     |     | [Normal] |      |    | +00  |    |    |
| C#7     |     |          |      |    |      |    |    |

Note that when you return to the SONG play mode the block below each track that contains data will be filled (dark) while the blocks below empty tracks are empty (outline only).

**8 Record the remaining tracks.**

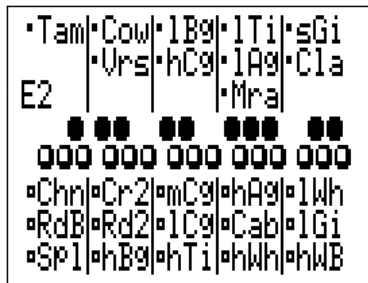
Complete the song by re-engaging the record mode, selecting the next track to be recorded, and recording as described in steps 2 and 5 through 7, above.

The pitch of the lowest micro-keyboard key (changes when the octave keys are used).

Micro-keyboard.

Drum instruments currently played by the corresponding micro-keyboard keys.

Hold **[MENU]** and press **[MODE]**

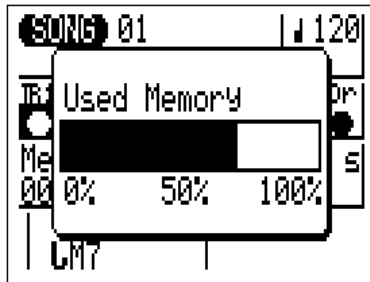


As long as the record mode is not engaged you can press the **[MODE]** key while holding the **[MENU]** key to see the current pitch of the micro-keyboard as determined by the **[OCT DOWN]** and **[OCT UP]** keys, and a list of the drum instruments currently played by the micro-keyboard keys.



See the “Editing Songs & Patterns” section , page 140, for information on how to edit recorded song data.

### ● The “Used Memory” Display



Press the **[OCT DOWN]** and **[OCT UP]** keys simultaneously at any time when the record mode is not engaged to see how much of the QY22’s memory has been used.

When the bar reaches “100%” the QY22 memory is full (or almost full) and further recording may not be possible unless you delete some unwanted data or transfer some data to an external data storage device using the MIDI bulk dump function (see page 163).



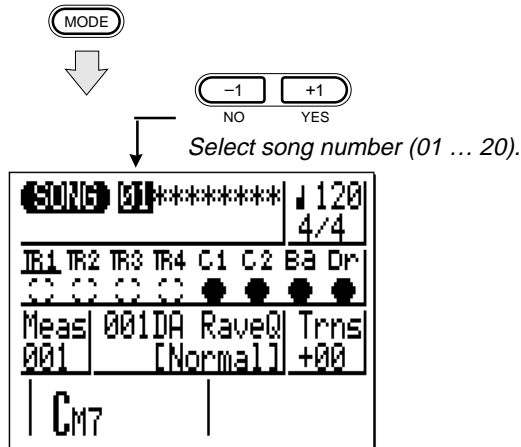
If the memory becomes full during realtime recording the “Memory Full” error message will appear and recording will stop automatically. Although the used memory display may not show “100%” at this point, further recording will not be possible until some data is deleted.

## Step Sequencer Track Recording

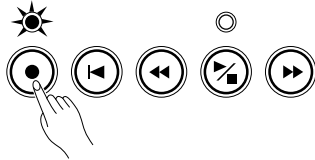
The step pattern record mode lets you enter each track note-by-note, with precise control over the timing, length, and loudness of each note. You can record entire tracks using the step mode, or use it to brush-up and add data to an existing track.

### 1 Select the SONG mode & the song to be recorded

Use the [MODE] key to select the SONG mode and, with the cursor located over the song number at the top of the display, use the [-1] and [+1] keys to select the song you intend to record.

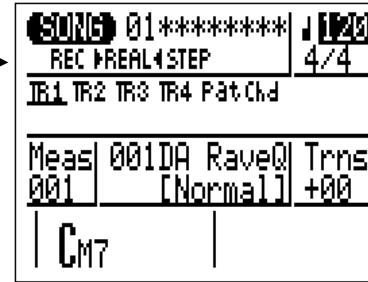


**2 Engage the record ready mode.**



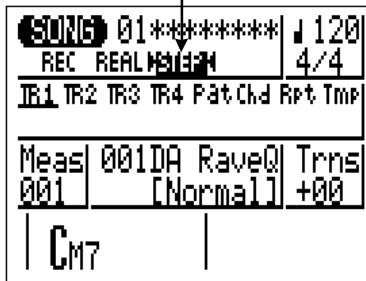
Press the [●] key to engage the record ready mode. The red LED above the [●] key will light.

“REC” appears when the record mode is engaged.



**3 Select the step record mode.**

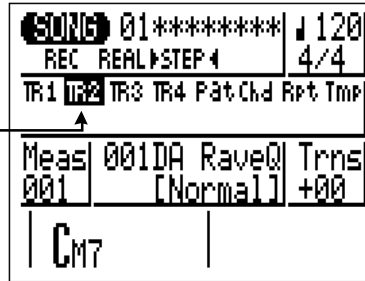
Place cursor here to select the step record mode.



Move the cursor to the “REC REAL STEP” area of the display, then press the right cursor key to select the “STEP” mode (if it isn’t already selected). The selected record mode is indicated by a pair of arrows on either side of the mode name — i.e. “▶STEP◀”. Once selected, move the cursor vertically to move to other areas of the screen. The arrows will remain positioned at the selected mode.

**4** Select the track to record.

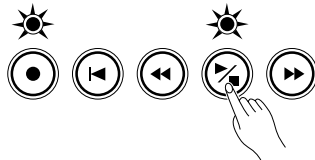
TR2 selected for step recording.



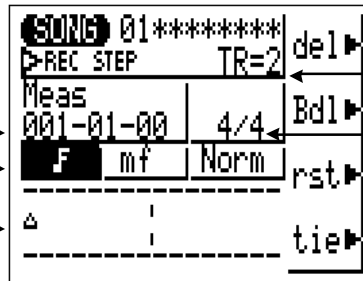
Move the cursor to the track area of the display, and then shift the cursor sideways to select the track you want to record: TR1, TR2, TR3, or TR4. Move the cursor vertically to move to other areas of the screen. An underline will remain below the selected track.

**5** Record.

Press the [▶/■] key to begin recording. The step record display shown below will appear.



Measure/beat/clock display. →  
 Note parameters. →  
 Note display. →



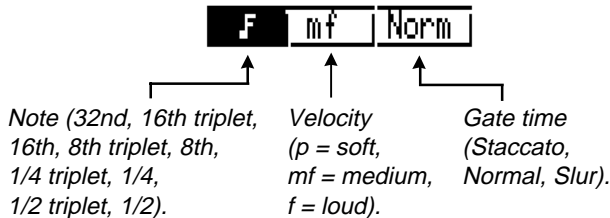
Current record track.

Time signature.



**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] keys for the first (or next) note to be entered.

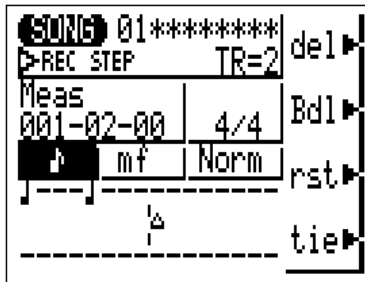


The velocity and gate time settings in the step record display correspond to the following numeric values in the edit displays (to be described later):

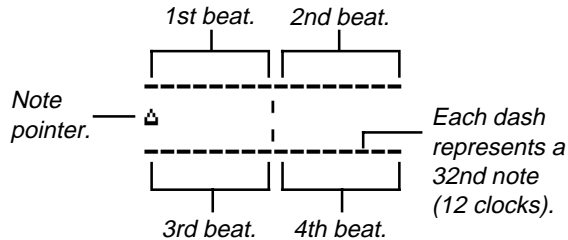
**Velocity**    "p" = 56  
                   "mf" = 88  
                   "f" = 120

**Gate Time**    "Staccato" = 50% normal note length.  
                   "Normal" = 90% normal note length.  
                   "Slur" = 99% normal note length.

**7 Enter a note.**

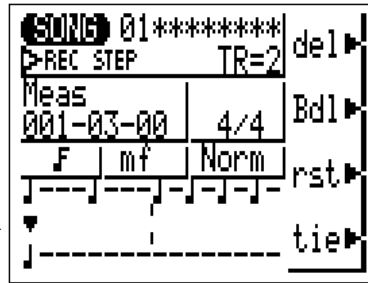


Once the note parameter have been specified, the note can be entered simply by playing the appropriate key on the micro-keyboard (or on your external MIDI keyboard). A note symbol appears on the note display and the note pointer advances to the next note position. The note symbol always appears as a 1/4-note, regardless of the actual note entered (chords are also indicated by the 1/4-note symbol). Here's how the display will look after two 8th notes have been entered.



## 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. On the other hand, if the time signature is 3/4, then the 4th beat is not used and appears as double dashes on the display (“=====”).



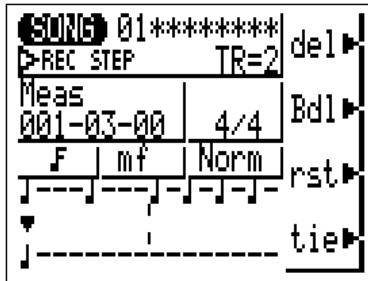
Cursor moved to note pointer (pointer filled).  
Note that the pointer points up to notes in the upper row and down to notes in the lower row.

## 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 symbol. When you move the note pointer past the end of the note display, the next measure will appear.

### The Step Mode Function Keys

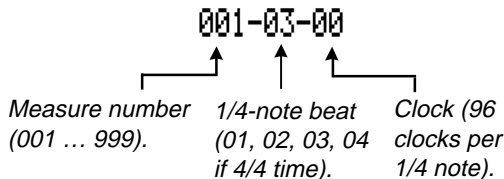
The four function keys immediately to the right of the display provide access to a number of handy functions in the step record mode. The “del” key deletes the note or chord at the note pointer. The “Bdl” key moves the note pointer backward by the currently selected note length and deletes any notes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

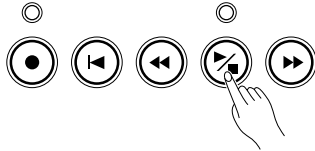


- ← Delete note at note pointer.
- ← Step back by current note length and delete.
- ← Enter rest of current note length.
- ← Enter a note of the same length as the last note, tied to the last note (this effectively lengthens the last note).

### The Measure/Beat/Clock Display

The “Meas” area of the step record display shows the current position of the note pointer in measures, 1/4-note beats, and clocks (there are 96 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.



**8** Complete the song.

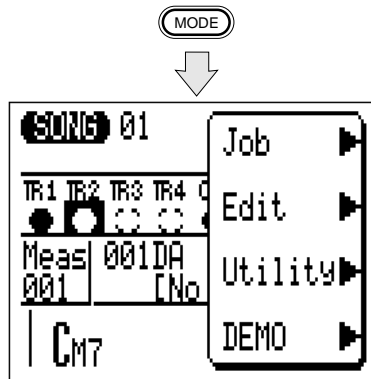
Repeat steps 7 and 8 until the current track of the song is complete, then press [▶/■] to stop recording and go back to step 5 to record the next track, as necessary.



See the “Editing Songs & Patterns” section , page 140, for information on how to edit recorded song data.

## The Song Jobs

The song mode includes 14 song “jobs” that perform a variety of important functions. To access and use the song jobs, press the **[MENU]** key while in the normal SONG play mode, and then press the function key next to “Job” on the display.



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]**.



*Press for song job list.*

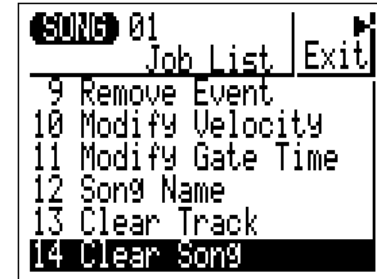
Song jobs 1 ... 6.



Song jobs 7 ... 12.

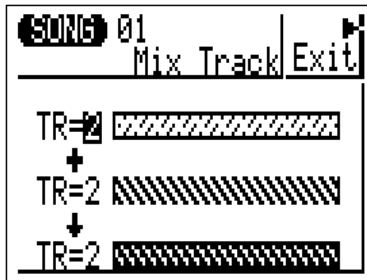


Song jobs 9 ... 14.



### Returning to the Song Play Mode

The function button next to “Exit” on the display can be used to exit from any song job, and then from the job list thereby returning you to the normal song play mode.

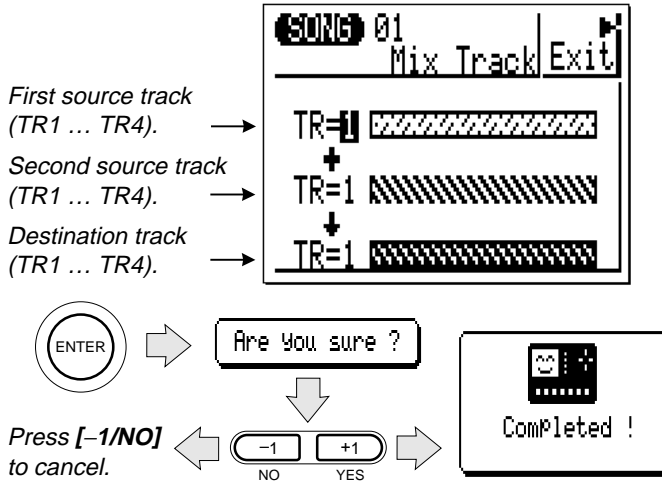


↑  
Press to exit  
to job list.



↑  
Press to exit to  
song play mode.

**1: Mix Track**



Combines the data contained in two specified source tracks and places the result in a third destination track. The destination track can be the same as either of the source tracks.

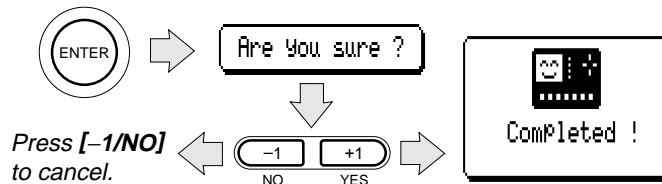
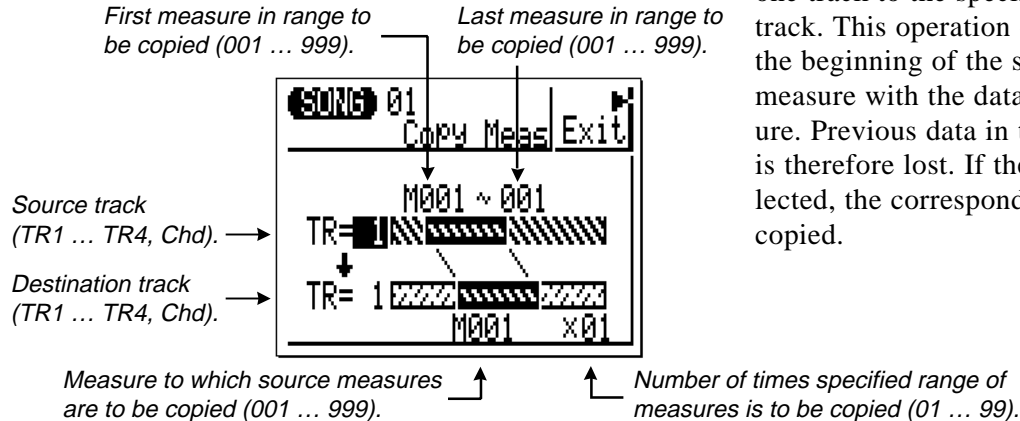
After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the Mix Track operation (which will overwrite data in the destination track), or press [-1/NO] to cancel.



*In many situations you may want to “overdub,” or add new material to a single track without deleting the previous material. This is dangerous, however, since you can ruin one or more layers of good material by making a mistake during a later overdub. The QY22 eliminates this possibility by allowing only “replace” recording (i.e. all material recorded to a track erases and replaces any previous material on that track). In order to record more than one layer of material to a single track (using the same voice, of course), first record the layers on separate tracks, then after ensuring that there are no mistakes, use the Mix Track job to combine these separate tracks onto a single track.*

*Please note that if both source tracks are set to the same track number, the data from that track will simply be copied to the destination track.*

## 2: Copy Measure



The Copy Measure 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.

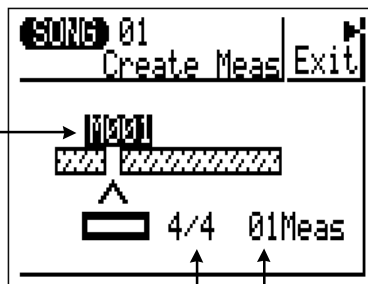
Copies a specified range of measures from one track to the specified measure in another track. This operation overwrites the data from the beginning of the specified destination measure with the data from the source measure. Previous data in the overwritten measures is therefore lost. If the “Chd” track is selected, the corresponding chord progression is copied.

After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the Copy Measure operation (Copy Measure is irreversible), or press [-1/NO] to cancel.



**3: Create Measure**

Measure at which created measures are to be inserted (001 ... 999).



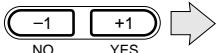
Time signature of measures to be created (1/4 ... 8/4, 1/8 ... 16/8, 1/16 ... 16/16).

Number of measures to be created (01 ... 99).



Are You sure ?

Press [-1/NO] to cancel.



Creates a specified number of blank measures having the specified time signature for all sequencer tracks (TR1 ... TR4). The accompaniment tracks are not affected. The created measures are inserted at a specified measure number, and all subsequent measures are moved forward to make room. Always set the time signature parameter to the same time signature as the song, otherwise the difference between the specified time signature and that of the accompaniment

tracks makes it impossible to properly create the specified measures.

After setting the parameters as required, press [ENTER]. "Are you sure?" will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the Create Measure operation, or press [-1/NO] to cancel.

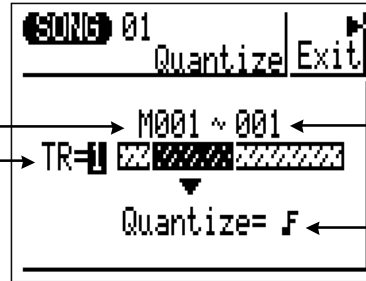


Use create measure when you want to add new material somewhere in the middle of data you've already recorded, without erasing the existing data. First create the required measures, then either copy the data from existing measures using the Copy Measure function, or record new data as required.

## 4: Quantize

First measure in range to be modified (001 ... 999).

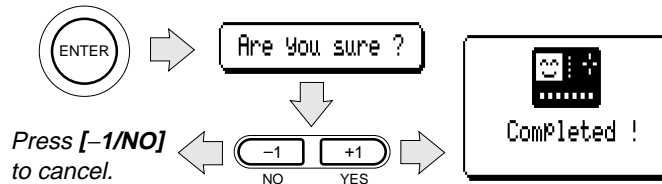
Track (TR1 ... TR4).



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

Last measure in range to be modified (001 ... 999).

Quantize note length (32nd note, 16th note triplet, 16th note, 8th note triplet, 8th note, 1/4-note triplet, 1/4-note, 1/2-note triplet, 1/2-note).



After setting the parameters as required, press **[ENTER]**. “Are you sure?” will appear on the display. Press **[+1/YES]** to confirm that you want to go ahead with the quantize operation (which will irreversibly modify the data in the specified track), or press **[-1/NO]** to cancel.

One measure of 8th notes before quantization.



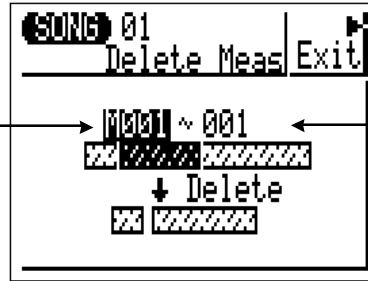
After quantization.



Quantization is generally used to tighten up sloppy timing. Use it judiciously, however, because timing that is too perfect can sound cold and mechanical — unless, of course, you’re specifically aiming for a cold, mechanical feel. Always use a quantize value that is at least as “short” as the shortest notes in the track to be quantized. If you quantize a track containing 16th notes to 1/8 (8th notes), for example, some of the 16th notes will be aligned with 8th note beats, thus ruining the track.

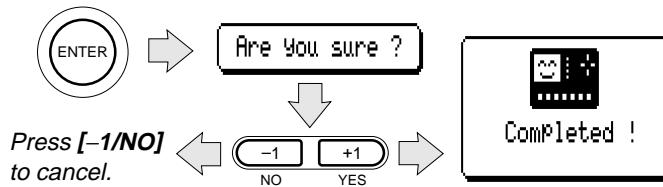
**5: Delete Measure**

First measure in range to be deleted (001 ... 999).



Last measure in range to be deleted (001 ... 999).

Deletes the specified range of measures from all sequencer tracks (TR1 ... TR4) simultaneously. The accompaniment tracks are not affected. Please note that if the Delete Measure job is used to delete a measure or measures that have a different time signature from the rest of the song, the specified measure or measures may not be properly deleted due to the resulting difference between the time signatures of the sequencer and accompaniment tracks.

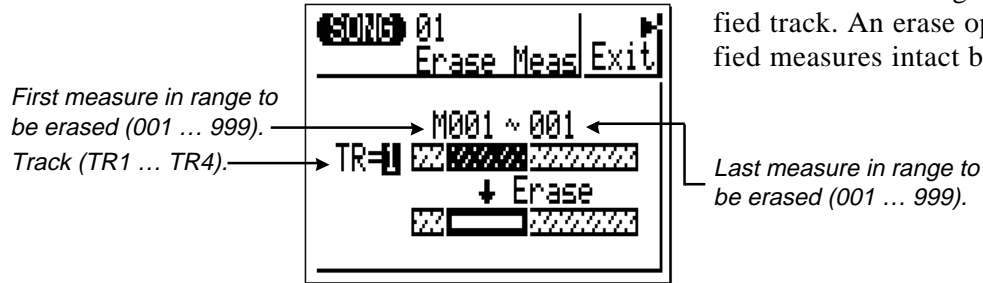


After setting the parameters as required, press [ENTER]. "Are you sure?" will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the Delete Measure operation (Delete Measure is irreversible), or press [-1/NO] to cancel.

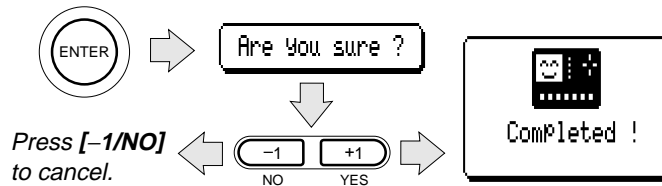


*Delete Measure is a great way to completely cut out unwanted data from the song. It's important to remember, however, that a delete operation affects all tracks simultaneously, and that measures following the deleted range are moved back to take the place of the deleted measures.*

## 6: Erase Measure



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.



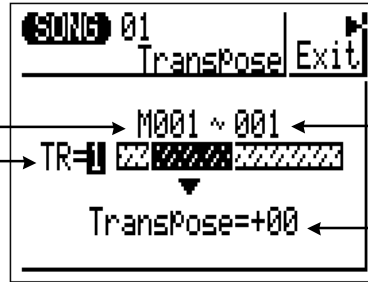
After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the Erase Measure operation (Erase Measure is irreversible), or press [-1/NO] to cancel.



Unlike the Delete Measure job, the Erase Measure 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.

**7: Transpose**

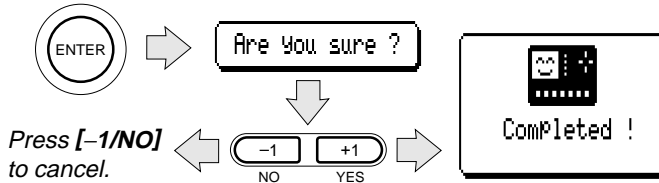
First measure in range to be modified (001 ... 999).  
Track (TR1 ... TR4).



Transposes all notes in the specified part up or down by the specified number of semitones. Minus (-) values transpose down while plus (+) values transpose up.

Last measure in range to be modified (001 ... 999).

Amount of transposition in semitones (-12 ... +00 ... +12).



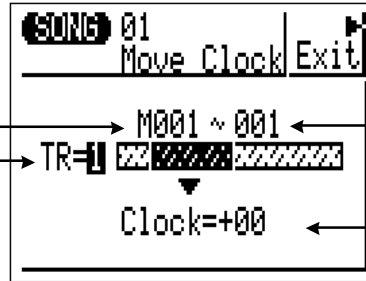
After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the transpose operation, or press [-1/NO] to cancel.



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.

**8: Move Clock**

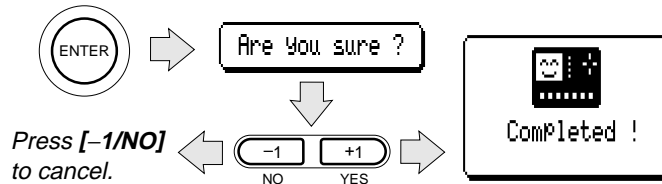
First measure in range to be modified (001 ... 999).  
Track (TR1 ... TR4).



Moves all notes and events in the specified track and range of measures forward or backward by the specified number of clocks (96 clocks per 1/4 note).

Last measure in range to be modified (001 ... 999).

Number of clocks by which data in specified range are to be moved (-99 ... +00 ... +99).

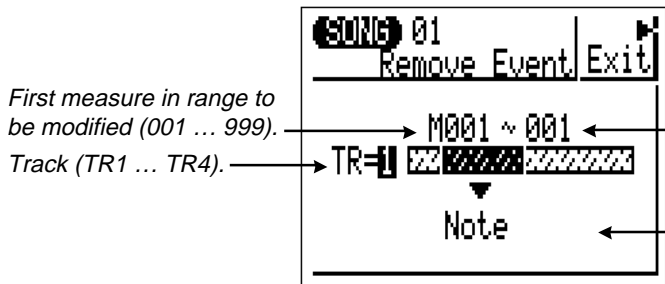


After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the Move Clock operation, or press [-1/NO] to cancel.



Since the Move 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 Clock Move to correct timing that is off in the first place.

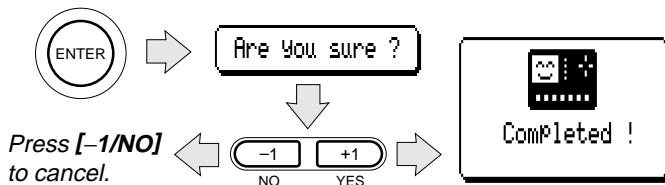
**9: Remove Event**



Allows pitch bend, program change, or control change events (data) to be removed from a specified measure or range of measures in a specified track.

Last measure in range to be modified (001 ... 999).

Type of event to be removed from the specified range of measures (Note, Program Change, Sustain, Pitch Bend, Modulation, Pan, Volume, Expression, Data Entry LSB, Data Entry MSB, RPN LSB, RPN MSB).

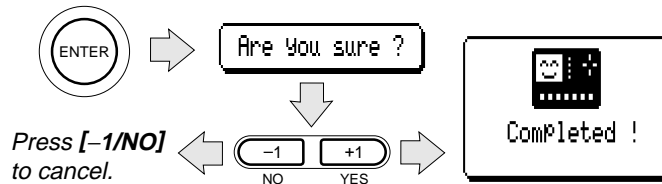
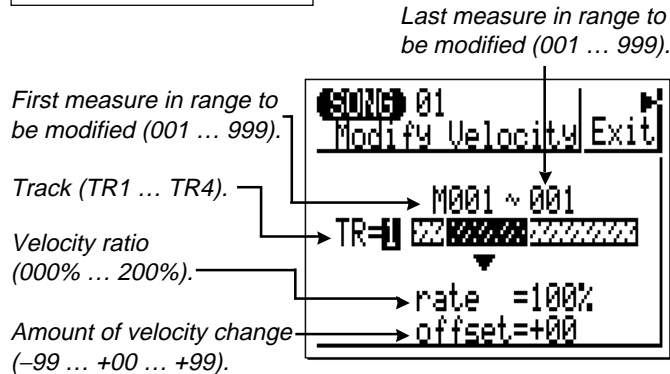


After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the Remove Event operation (Remove Event is irreversible), or press [-1/NO] to cancel.



Although you can remove events individually in the edit mode (page 145), the Remove 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.

## 10: Modify Velocity



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

The “**rate**” parameter sets the ratio between the lower and higher velocity values. A setting of “100%” maintains the original relationship between the notes, lower values produce a narrower dynamic range, and higher values produce a broader dynamic range.

The “**offset**” parameters determines the amount of velocity change. “-” settings reduce the velocity while “+” settings increase the velocity.

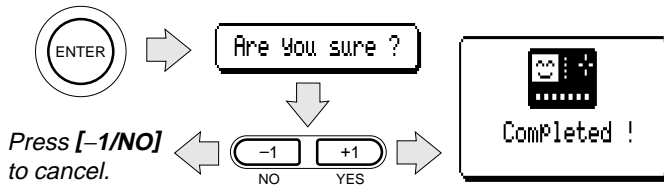
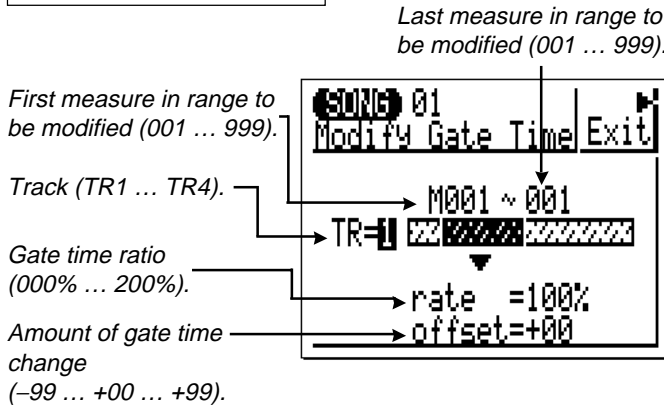
After setting the parameters as required, press **[ENTER]**. “Are you sure?” will appear on the display. Press **[+1/YES]** to confirm that you want to go ahead with the modify velocity operation, or press **[-1/NO]** to cancel.



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.



**11: Modify Gate Time**



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

The “**rate**” 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.

The “**offset**” parameter determines the amount of gate time modification. “-” settings shorten the gate time while “+” settings increase the gate time.

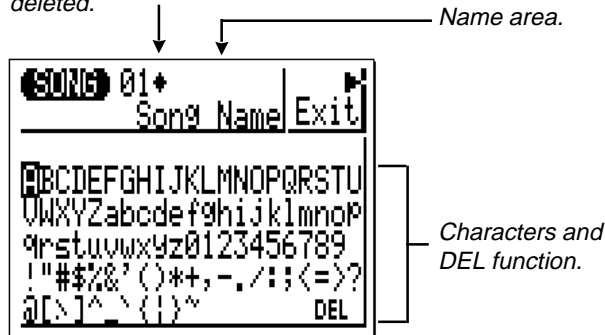
After setting the parameters as required, press [ENTER]. “Are you sure?” will appear on the display. Press [+1/YES] to confirm that you want to go ahead with the modify gate time operation, or press [-1/NO] to cancel.



*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.*

## 12: Song Name

*Character cursor. Moves forward as each character is entered, or backward when a character is deleted.*



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

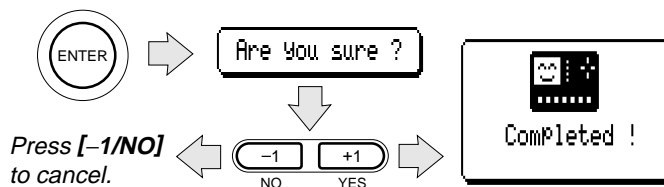
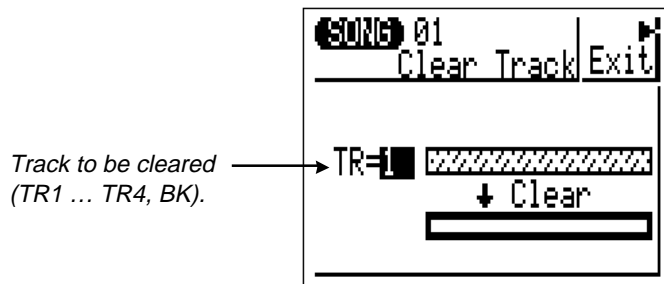
To enter a character, use the cursor keys to move the cursor to the character to be entered, then press the **[ENTER]** key. The character will appear at the character cursor location and the character cursor will advance to the next character position.

To delete the last character entered place the cursor over "DEL" at the bottom of the display and press **[ENTER]**. The character will be deleted and character cursor will move back to the last character position.

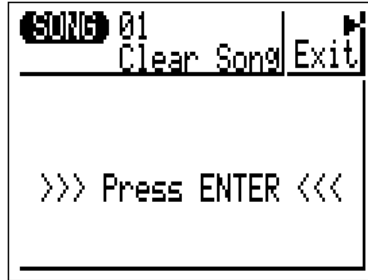
When the entire name has been entered, press the top function button next to "Exit" on the display. The new name will appear next to the song number at the top of the SONG mode display.

**13: Clear Track**

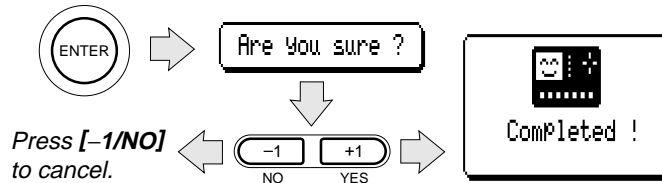
Completely clears the specified track from the currently selected song. If “BK” is selected, all accompaniment tracks are cleared.



Select the track to be cleared and press **[ENTER]**. “Are you sure?” will appear on the display. Press **[+1/YES]** to confirm that you want to go ahead with the Clear Track operation (Clear Track is irreversible), or press **[-1/NO]** to cancel.

**14: Clear Song**

Completely clears the currently selected song.



After selecting the Clear Song job, press **[ENTER]**. “Are you sure?” will appear on the display. Press **[+1/YES]** to confirm that you want to go ahead with the Clear Song operation (Clear Song is irreversible), or press **[-1/NO]** to cancel.



# *Editing Songs & Patterns*

|                              |     |
|------------------------------|-----|
| Engaging the Edit Mode ..... | 140 |
| Change Mode Editing .....    | 143 |
| Insert Mode Editing .....    | 146 |

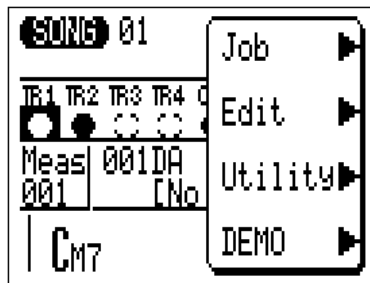
The QY22's editing capability makes it easy to correct mistakes made when recording song or pattern data, and to generally refine your sound.

The song and pattern edit “change” mode lets you individually modify the timing, pitch, gate time (length) and velocity (loudness) of each note in the pattern. There’s also an edit “insert” mode that allows insertion of note, program change, sustain on/off, pitch bend, modulation, pan, volume, expression, and other events at any point in the pattern.

## Engaging the Edit Mode

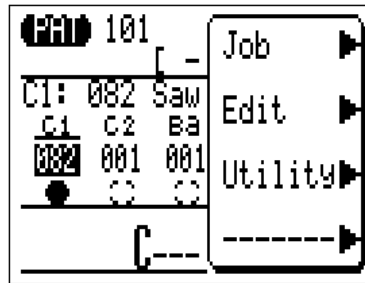
To engage the edit mode, place the cursor at the track you want to edit in the normal SONG or PATTERN play mode, press the [MENU] key, and then the function key next to “Edit” on the display.

From the  
SONG mode:

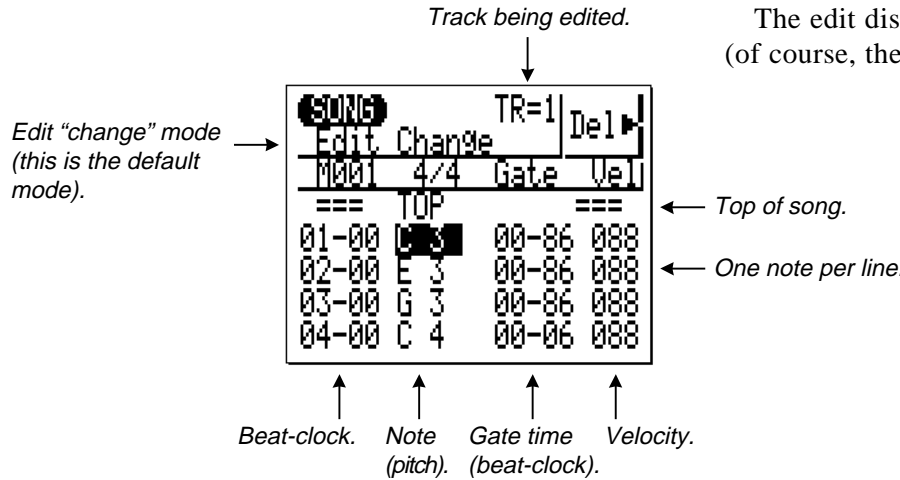


Press to enter  
song edit mode  
for current track.

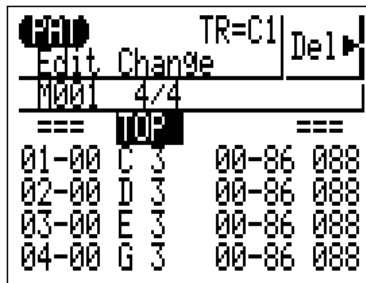
From the  
PATTERN  
mode:



Press to enter  
pattern edit mode  
for current track.



The edit display will look something like this (of course, the note data will be different).



The pattern edit display is almost exactly the same. The only difference is that the part being edited (C1, C2, Ba, or Dr) is displayed in the upper right corner instead of the track.



### ● Moving Around

The timing, 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 pattern by simply moving the cursor. Move below the bottom of the display and the note data will scroll up, moving towards the end of the 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, measure lines, and the end of the song.

Cursor currently in measure 002. →

Measure line. →

| SONG  |            | TR=1  | Del ▶ |
|-------|------------|-------|-------|
| Edit  | Change     |       |       |
| M002  | 4/4        | Gate  | Vel   |
| 03-00 | G 3        | 00-86 | 088   |
| 04-00 | C 4        | 00-86 | 088   |
| ===   | Meas       | 002   | ===   |
| 01-00 | G 3        | 00-86 | 088   |
| 02-00 | <b>E 3</b> | 00-86 | 088   |

| SONG  |             | TR=1  | Del ▶ |
|-------|-------------|-------|-------|
| Edit  | Change      |       |       |
| M003  | 4/4         |       |       |
| 01-00 | B 2         | 00-86 | 086   |
| 02-00 | C 3         | 00-86 | 086   |
| 03-00 | G 3         | 00-86 | 088   |
| 04-00 | C 4         | 00-86 | 088   |
| ===   | <b>E 10</b> |       | ===   |

← End of song.

## Change Mode Editing

| SONG        |            | TR=1  |     | Del ▶ |  |
|-------------|------------|-------|-----|-------|--|
| Edit Change |            |       |     |       |  |
| MM02        | 4/4        | Gate  | Val |       |  |
| 03-00       | G 3        | 00-86 | 088 |       |  |
| 04-00       | C 4        | 00-86 | 088 |       |  |
| ===         | Meas       | 002   | === |       |  |
| 01-00       | G 3        | 00-86 | 088 |       |  |
| 02-00       | <b>L 3</b> | 00-86 | 088 |       |  |



*For example, you would place the cursor here if you wanted to change the pitch of the second note in the second measure.*

**01-00** C 3    00-86 088

The “Change” edit mode is initially selected when the edit mode is engaged. To edit any note 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] keys 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] key to actually enter the changes, or move the cursor to another line to cancel the changes.

### Beat-clock

The first column contains the note timing data. The left number is the 1/4-note beat within the current measure (1 through 4 in a 4/4 measure), and the right number is the clock within that beat (00 through 95). The beat and clock values can be selected and edited independently.

```
01-00 C 3 00-86 088
```

### Pitch

This is the actual pitch of the note. The range is from C-2 to G8.

```
01-00 C 3 00-86 088
```

### Gate Time

Gate time is the length of the note in clocks. A normal 1/4 note, for example, is 86 clocks long. This is about 90% of the actual length of a 1/4-note division, which is 96 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 left number is 1/4-note beats (96-clock units) and the right number is clocks. The range is from 00-01 to 99-95.

```
01-00 C 3 00-86 088
```

### 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 key next to “Del” on the display.

| SONG  |            | TR=1  |     | Del |
|-------|------------|-------|-----|-----|
| Edit  | Change     |       |     |     |
| M002  | 4/4        | Gate  | Vel |     |
| 03-00 | G 3        | 00-86 | 088 |     |
| 04-00 | C 4        | 00-86 | 088 |     |
| ===   | Meas       | 002   | === |     |
| 01-00 | G 3        | 00-86 | 088 |     |
| 02-00 | <b>E 3</b> | 00-86 | 088 |     |



← Press to delete line at cursor location  
(note or other event).

## Insert Mode Editing

The edit insert mode is used to insert new notes and other events at a specified location in the pattern.

### 1 Place the cursor at the insert location.

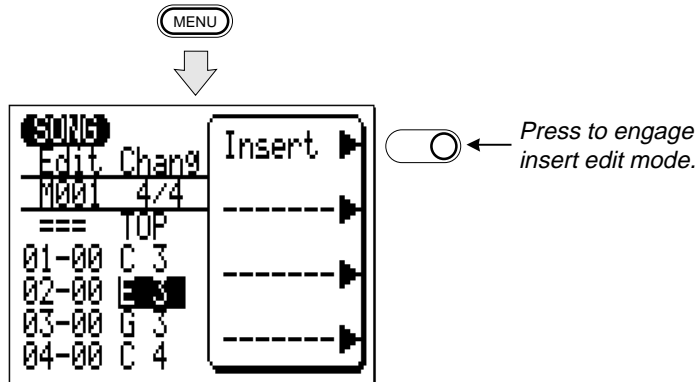
Move the cursor to the edit line corresponding to (or near to) the location at which you want to insert the new data.

Place cursor at  
insert location. →

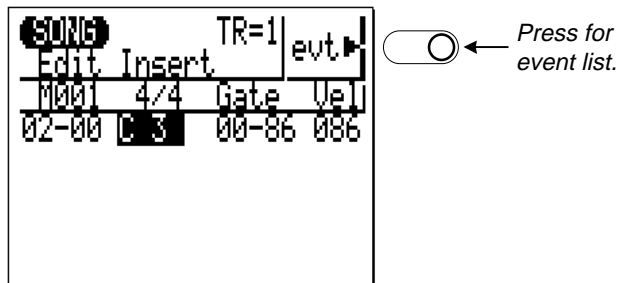
| SONG        |            | TR=1  | Del  |
|-------------|------------|-------|------|
| Edit Change |            |       |      |
| M001        | 4/4        | Gate  | Uell |
| === TOP === |            |       |      |
| 01-00       | C 3        | 00-86 | 088  |
| 02-00       | <b>E 3</b> | 00-86 | 088  |
| 03-00       | G 3        | 00-86 | 088  |
| 04-00       | C 4        | 00-86 | 088  |

### 2 Engage the insert edit mode.

Press the [MENU] key and then the function key next to “Insert” on the display to switch to the insert edit mode.



### 3 Call the event list.

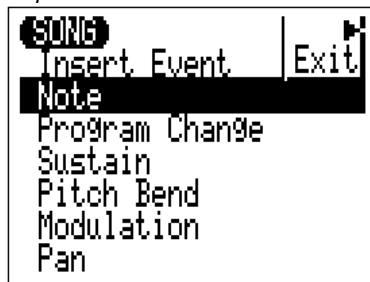


If the display corresponding to the type of event you want to insert does not appear immediately (the last selected event type will appear), press the function key next to “evt” on the display to call the insert edit mode event list.

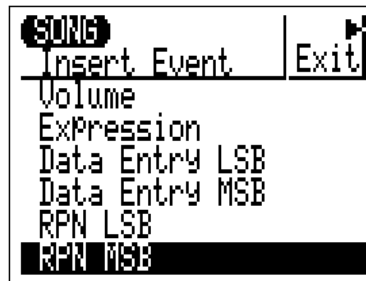
**4 Select the type of event to be inserted.**

Move the cursor to the type of event you want to insert (see descriptions below), then press the **[ENTER]** key to call the display for the selected event.

*Top half of event list.*

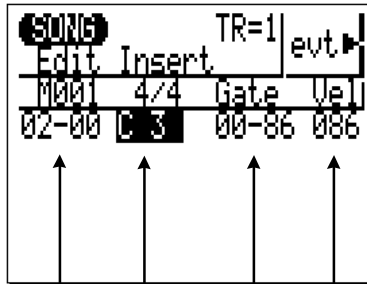


*Bottom half of event list.*

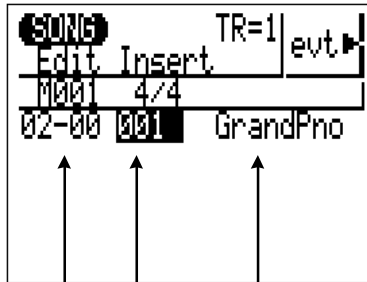


**5 Set the event parameters.**

All events have at least two parameters — usually the location of the event (Beat-clock) and the event value. Move the cursor to the event parameters and set as required by using the **[-1]** and **[+1]** keys. Note that the measure number above the event line will change to indicate the event locations as you change the beat-clock location value (M001 ... M999).



Location. Pitch. Gate time. Velocity.



Location. Voice number. Voice name (changes according to voice number selected).

### 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.

### Program Change

In the **SONG** mode, Program Change events can be used to switch voices at any point in the track. You can select voices “001” through “128”. The QY22’s Normal voice names are fully compatible with the General MIDI System Level 1.

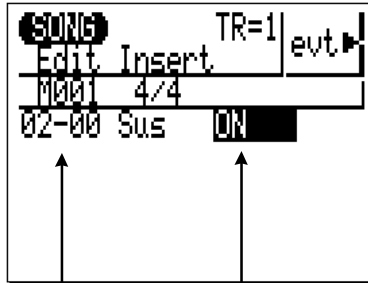
In the **PATTERN** mode it is possible to assign voices to tracks as follows:

**C1, C2, Ba** Track..... Normal voice

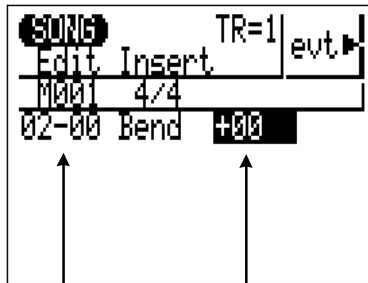
**Dr** Track ..... Drum voice

Both Normal voice and Drum voice names are fully compatible with General MIDI System Level 1.





*Location.*      *ON or OFF.*



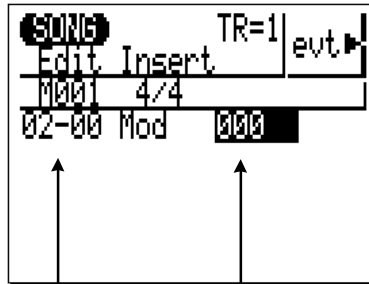
*Location.*      *Amount of pitch change.*

## Sustain

Inserting a sustain ON event has the same effect as pressing the sustain pedal on a keyboard. All subsequent notes will be sustained (applicable voices only) until a sustain OFF event is encountered. Be sure to select “ON” or “OFF”, as required, before entering a sustain event.

## Pitch Bend

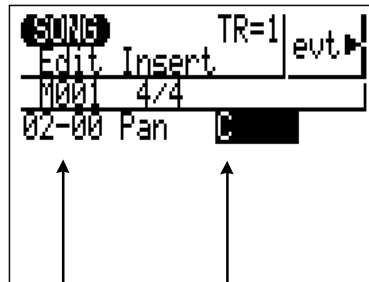
Pitch bend events can be used to produce pitch bend effects. The amount of pitch bend produced by each event can be set from “-64” through “+00” to “+63”. To produce smooth pitch bends, you’ll need to insert several appropriately-spaced small pitch bend events. Remember to use more pitch bend effects to return the pitch to normal after a bend.



Location. Amount of modulation.

## Modulation

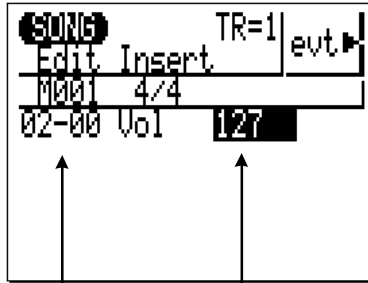
Modulation events apply pitch modulation (vibrato) to the voice. The amount of modulation applied can be set from “000” (no modulation) to “127” (maximum modulation). Modulation remains in effect until a “000” modulation event is encountered.



Location. Pan position.

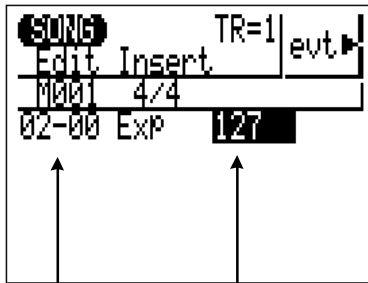
## Pan

Pan events can be used to pan the current voice to a specified position in the output stereo sound field (drum voices cannot be panned). The pan position can be set from “L7” (full left) through “C” (center) to “R7” (full right).



*Location.*

*Volume level.*



*Location.*

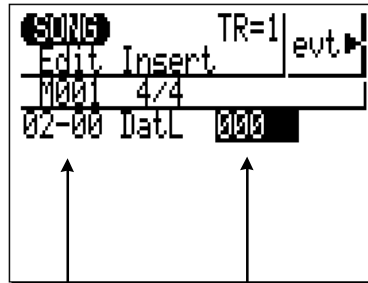
*Expression level.*

## Volume

Volume events can be used to produce sudden volume changes or gradual crescendos and decrescendos. The volume range is from “000” (minimum volume) to “127” (maximum volume). Use a number of small volume events spaced at appropriate intervals to create gradual volume changes.

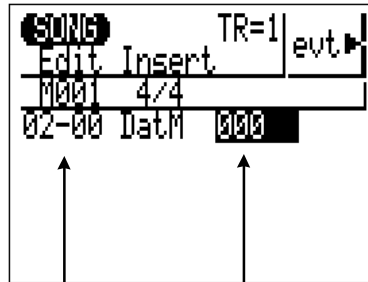
## Expression

Expression events function in much the same way as volume events, but can be used to produce “finer” volume variations. The expression range is from “000” (lower volume) to “127” (higher volume). Use a number of small expression events spaced at appropriate intervals to create gradual expression “swells” and other volume changes.



*Location.*

*Data entry LSB  
value.*

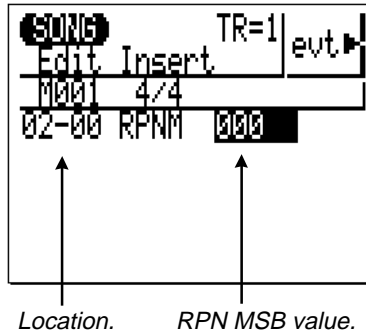
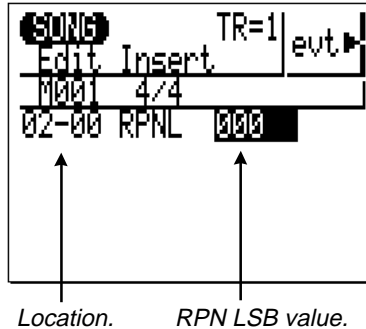


*Location.*

*Data entry MSB  
value.*

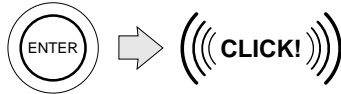
### Data Entry LSB & Data Entry MSB

Data entry events can be used in conjunction with RPN events (described below) to control a wide variety of parameters. An RPN event is used to specify the parameter to be controlled, then a data entry event supplies the control value. A single data entry event consists of two bytes of data — the LSB (Least Significant Byte) and the MSB (Most Significant Byte). See the “MIDI Data Format” booklet for technical details.



### RPN LSB & RPN MSB

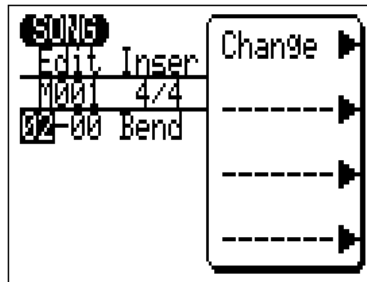
RPN (Registered Parameter Number) events can be used in conjunction with data entry events (described above) to control pitch bend sensitivity, tuning, and other basic tone generator settings. An RPN event is used to specify the parameter to be controlled, then a data entry event supplies the control value. A single RPN event consists of two bytes of data — the LSB (Least Significant Byte) and the MSB (Most Significant Byte). See the “MIDI Data Format” booklet for technical details.

**6** Enter the specified event.

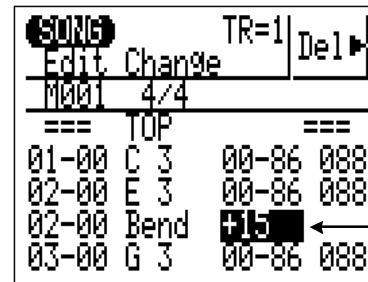
Press the [ENTER] key to enter the event as specified. A click will be heard as the event is entered. Please note that the click sound will not be heard if no drum voice is assigned to the drum track, or if the volume is set to "0".

**7** Return to the change edit mode.

Press the [MENU] key and then the function key next to "Change" on the display to return to the change edit display, and continue editing as required.



Press to return to change edit mode.



Pitch bend event inserted. Once inserted, you can edit the event's location and value in the change mode.

**8** Exit from the edit mode.

Press the [MODE] key to exit from either the change or insert edit mode and return to the normal SONG or PATTERN play mode.



# *Utility Functions*

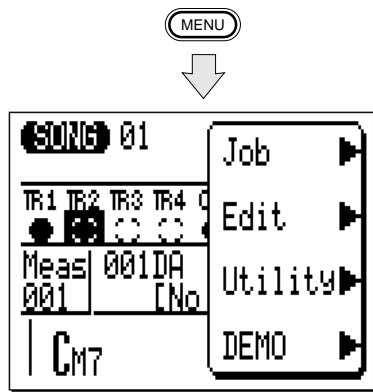
|                                  |     |
|----------------------------------|-----|
| Accessing the Utility Mode ..... | 158 |
| System Parameters .....          | 160 |
| Bulk Dump .....                  | 163 |
| ABC Zone .....                   | 165 |
| Memory Initialize .....          | 166 |




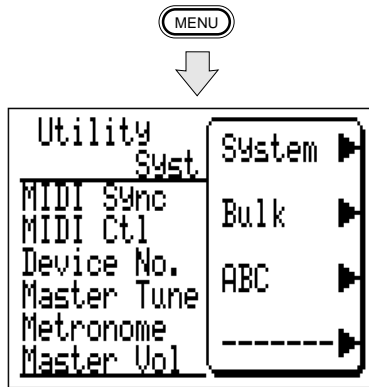
The QY22 utility mode includes a number of functions that are important for general operation — e.g. MIDI data handling, interfacing with external equipment, saving song and pattern data to an external storage device, ABC system operation, etc.

### Accessing the Utility Mode

The utility mode can be accessed from the SONG, VOICE, or PATTERN mode. Simply press the [MENU] key and then the function key next to “Utility” on the display.



 Press to engage utility mode.

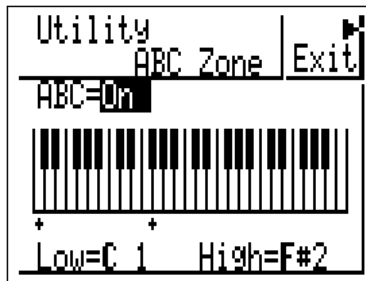


- ← Press for utility mode system parameters.
- ← Press for MIDI bulk dump.
- ← Press to set ABC keyboard zone.



When the utility mode is first engaged from the SONG, PATTERN, or VOICE mode, the last utility display selected will initially appear.

● **Exiting From the Utility Mode**



- ← Press to exit from utility mode.

The function key next to “Exit” on the display can be used to exit from any utility display and return to the SONG, VOICE, or PATTERN mode.

## System Parameters

| Utility     | System   | Exit |
|-------------|----------|------|
| MIDI Sync   | = Int    |      |
| MIDI Ctl    | = On     |      |
| Device No.  | = All    |      |
| Master Tune | = +00    |      |
| Metronome   | = Record |      |
| Master Vol  | = 127    |      |

### MIDI Sync

(MIDI synchronization mode)

**Settings:** Int, Ext

### MIDI Ctl

(MIDI control)

**Settings:** On, Off

The “System” display includes 6 parameters that affect the basic operation of the QY22. Move the cursor to the parameter to be adjusted and set as required by using the [-1] and [+1] keys.

When this parameter is set to “**Int**” the QY22 is controlled by its own internal clock.

When set to “**Ext**” the QY22 is controlled by a MIDI clock signal received from an external device such as a sequencer or music computer. Please note that the QY22 will not run on its own when this parameter is set to “Ext.”

This parameter simply turns MIDI control of the QY22 on or off. “**On**” is the normal setting, and with this setting the QY22 receives note, program change, and control change data from an external MIDI keyboard or other controlling device. Transmission of start, stop, and continue commands is also active, as is MIDI clock transmission.

When set to “**Off**” the QY22 will not respond to external MIDI control (start, stop, and continue commands only).

If the QY22 is to be used as a General MIDI tone generator, the MIDI control parameter should be set to “**Off**”.

**Device No.**

(MIDI device number)

**Settings:** Off, 1 ... 16, All

The Device Number setting determines the MIDI channel via which MIDI exclusive data will be transmitted when a Bulk Dump operation is executed (page 163) or received when bulk data is received from an external device.

When set to “**Off**” no bulk data transfer occurs.

When set to a channel number between **1** and **16** the bulk data transfers occur via the specified channel.

When set to “**All**” bulk data is transmitted and received on all channels.

**Master Tune****Settings:** -64 ... +00 ... +63

Tunes the overall pitch of the QY22 sound. The Master Tune range is from “**-64**” through “**+00**” to “**+63**”. Each increment corresponds to approximately 2 cents (a cent is 1/100th of a semitone). A setting of “**+00**” produces normal pitch: A4 = 440 Hz.

**Metronome****Settings:** Off, Record,  
Rec/Ply, Always

Determines when the QY22 metronome will sound. Normally the QY22 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/Ply**” so that it sounds during realtime recording and playback, or set it to “**Always**” so that the metronome sounds at all times.



*Internal data may be corrupted if the power is turned off while the metronome display is showing!*

**Master Vol**  
(Master Volume)

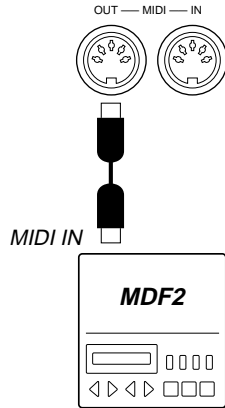
**Settings:** 0 ... 127

The Master Volume controls the overall volume of the QY22. It is recommended to use the default setting of 127.



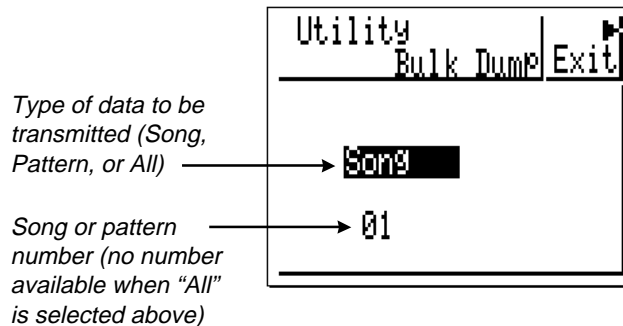
*When the QY22 is used as a General MIDI tone generator, it will receive Master Volume System Exclusive messages from other MIDI controllers.*

## Bulk Dump



Although the QY22 has memory for 20 songs and 100 user patterns, you might want to save your song and pattern data to an external device to allow greater storage capacity or simply to protect your data from accidental erasure or corruption. An ideal storage device for use with the QY22 is the Yamaha MDF2 MIDI Data Filer.

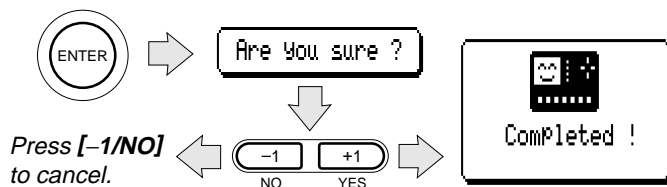
To save data from the QY22 to the MDF2, first connect the QY22 MIDI OUT to the MDF2 MIDI IN via a MIDI cable, and prepare the MDF2 for reception (refer to the MDF2 operation manual). Also make sure that the Device Number parameter in the utility System screen is set to the appropriate device number or “All.”



Next, select the utility mode Bulk Dump screen, select “Song” if you want to save the data for one song or all songs, “Pattern” if you want to save the data for one pattern or all patterns, or “All” if you want to save all song and pattern data.

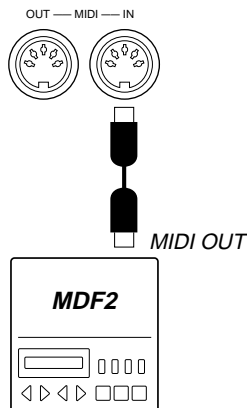
If you select “Song”, move the cursor to the song number parameter and select a song number (01 ... 20), or “All” to save all songs.

If you select “Pattern”, move the cursor to the pattern number parameter and select a pattern number (101 ... 200), or “All” to save all patterns.



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. “Transmitting” will appear on the display while the data is being transmitted, and “Completed!” will appear when the transmission is complete. Press any key (other than the micro-keyboard) to return to the Bulk Dump display.

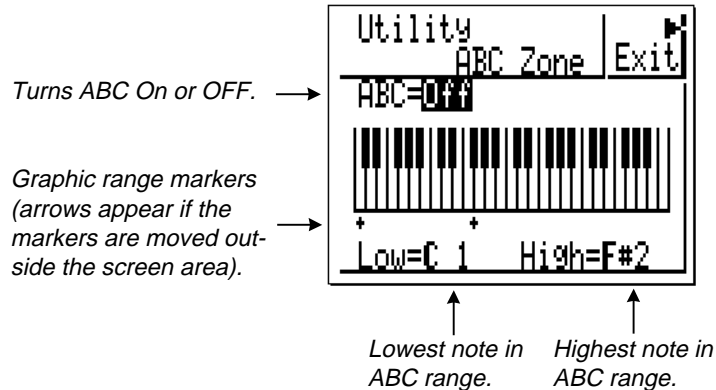
### ● Bulk Reception of Song & Pattern Data



If no other operation is currently in progress (recording, for example) the QY22 will automatically receive bulk song and pattern data transmitted from the MDF2. Make sure the QY22 song play mode is selected when receiving song data, and that the pattern play mode is selected when receiving pattern data. “ALL” data files including both song and pattern data can be received in the song play, pattern play, or voice mode.

To receive bulk data make sure that the MIDI OUT of the MDF2 (or other device) is connected to the MIDI IN of the QY22. Also make sure that the Device Number parameter in the utility System screen is set to the appropriate device number or “All.”

## ABC Zone



This utility function sets the range of notes in which chords played will be recognized by the QY22 ABC system (see “10: The QY22 As a Tone Generator/ABC Expander”, page 170).

Use then “ABC” parameter to turn the QY22 ABC system “On” or “Off” as required.

The “Low” and “High” parameters at the bottom of the display set the ABC range. The maximum range is from C-2 to G8 (the “High” parameter cannot be set lower than the “Low” parameter). When ABC is turned

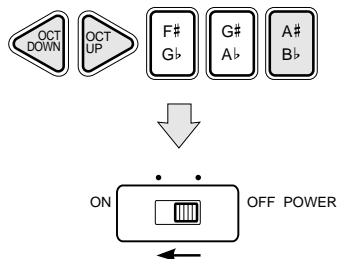
“On”, chords played within the specified ABC range will be recognized by the ABC system and the accompaniment chord will change accordingly during song playback or chord-track recording. To ensure reliable chord detection and recognition use an external MIDI keyboard to play the ABC system. The built-in micro-keyboard can be used, but because of its small size and necessarily simplified construction, chord detection is less reliable. Notes played below the low limit are interpreted as “on bass” notes. A chart of the chords recognized by the QY22 is provided in the Appendix (page 182).



When ABC is ON, notes played below the specified high limit are not played, or recorded in the realtime or step record modes.



## Memory Initialize



Although not on the utility mode job list, this function makes it possible to clear and initialize all internal song and pattern memory and reset all parameters in one single operation.

To initialize the QY22 memory, turn the power switch on while holding the [OCT DOWN], [OCT UP] and [A#/B $\flat$ ] keys simultaneously — then release the keys as soon as the initial power-on display appears.

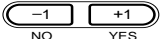
Since all data in the internal memory will be erased, make sure any data you want to keep has been saved to an external data storage device (page 163) before initializing the memory.

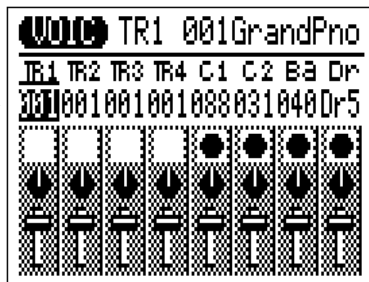
# *The QY22 As A Tone Generator/ ABC Expander*

|                                  |     |
|----------------------------------|-----|
| As a Tone generator Module ..... | 168 |
| As an ABC Expander .....         | 170 |

In addition to being played from its own keyboard and internal sequencer, the QY22 can be controlled from an external keyboard, sequencer, or music computer.

## As a Tone generator Module

Use  to select voice numbers.



Used as a tone generator module, the QY22 allows 8 different voices (7 normal voices and one drum voice) to be played via different MIDI channels. The MIDI channel/voice assignments are normally determined by the voice-to-track voice assignments made in the VOICE mode.

Each of the QY22 tracks is controlled by a different MIDI channel, as listed below.

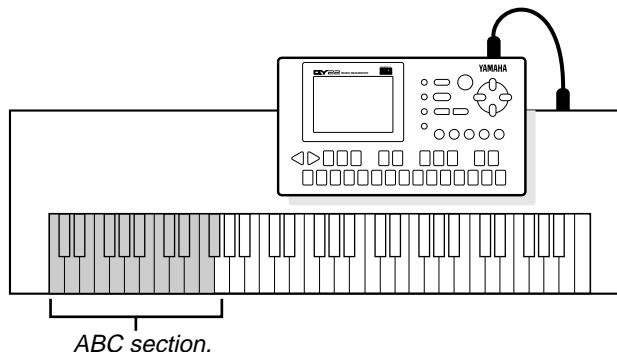
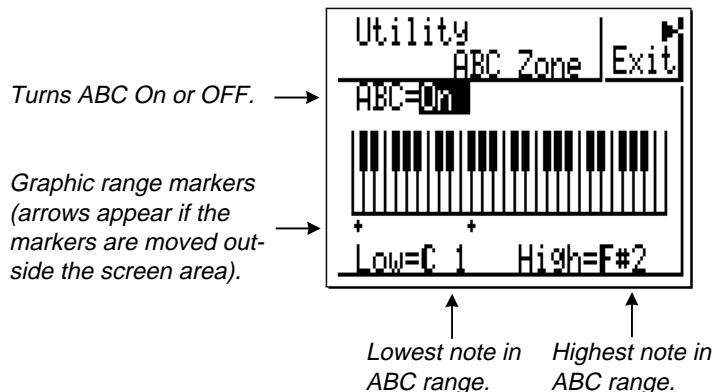
| MIDI Channel | Voice                                   |
|--------------|---|
| 1 .....      | Sequencer track <b>TR1</b>              |
| 2 .....      | Sequencer track <b>TR2</b>              |
| 3 .....      | Sequencer track <b>TR3</b>              |
| 4 .....      | Sequencer track <b>TR4</b>              |
| 5 .....      | Accompaniment track <b>C1</b> (Chord 1) |
| 6 .....      | Accompaniment track <b>C2</b> (Chord 2) |
| 7 .....      | Accompaniment track <b>Ba</b> (Bass)    |
| 10 .....     | Accompaniment track <b>Dr</b> (Drums)   |



*Data received on MIDI channels other than those listed above also produce sound, according to the received MIDI program change messages (see the “MIDI Data Format” booklet).*

You can assign any of the QY22’s 128 voices and 8 drum kits to the tracks controlled via MIDI channels 1 through 7, but only drum kit voices can be assigned to the “Dr” track, controlled via MIDI channel 10.

## As an ABC Expander



The QY22’s advanced ABC system can also be controlled from an external keyboard, making it useful as an ABC expander module. Use the utility mode “ABC Zone” function (page 165) to specify the range of notes in which you want the QY22 ABC system to recognize chords. Then you can change accompaniment chords during song playback simply by playing the appropriate chord in the specified section of the keyboard. See the “ABC Fingering Chart” in the Appendix (page 182) for a list of the chords that can be recognized by the QY22 ABC system.



*If you place the cursor at the pattern number or section name during song playback, you can use the micro-keyboard section keys to change sections as you play.*

# Appendix

|                           |     |
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## Voice List (Voice# 001 — 096)

| Voice#                      | LCD       | Voice Name            | Element | Pgm# | Voice#         | LCD      | Voice Name              | Element | Pgm# |
|-----------------------------|-----------|-----------------------|---------|------|----------------|----------|-------------------------|---------|------|
| <b>Piano</b>                |           |                       |         |      | <b>Guitar</b>  |          |                         |         |      |
| 001                         | GrandPno  | Acoustic Grand Piano  | 1       | 001  | 025            | NylonGtr | Acoustic Guitar (nylon) | 1       | 025  |
| 002                         | BritePno  | Bright Acoustic Piano | 1       | 002  | 026            | SteelGtr | Acoustic Guitar (steel) | 1       | 026  |
| 003                         | E.Grand   | Electric Grand Piano  | 2       | 003  | 027            | Jazz Gtr | Electric Guitar (jazz)  | 1       | 027  |
| 004                         | HnkyTonk  | Honky-tonk Piano      | 2       | 004  | 028            | CleanGtr | Electric Guitar (clean) | 2       | 028  |
| 005                         | E.Piano1  | Electric Piano 1      | 2       | 005  | 029            | Mute.Gtr | Electric Guitar (muted) | 1       | 029  |
| 006                         | E.Piano2  | Electric Piano 2      | 2       | 006  | 030            | Ovrdrive | Overdriven Guitar       | 1       | 030  |
| 007                         | Harpsi.   | Harpichord            | 1       | 007  | 031            | Dist.Gtr | Distortion Guitar       | 1       | 031  |
| 008                         | Clavi.    | Clavi                 | 1       | 008  | 032            | GtrHarmo | Guitar Harmonics        | 1       | 032  |
| <b>Chromatic Percussion</b> |           |                       |         |      | <b>Bass</b>    |          |                         |         |      |
| 009                         | Celesta   | Celesta               | 1       | 009  | 033            | Aco.Bass | Acoustic Bass           | 1       | 033  |
| 010                         | Glocken   | Glockenspiel          | 1       | 010  | 034            | FngrBass | Electric Bass (finger)  | 1       | 034  |
| 011                         | MusicBox  | Music Box             | 2       | 011  | 035            | PickBass | Electric Bass (pick)    | 1       | 035  |
| 012                         | Vibes     | Vibraphone            | 1       | 012  | 036            | Fretless | Fretless Bass           | 1       | 036  |
| 013                         | Marimba   | Marimba               | 1       | 013  | 037            | SlapBas1 | Slap Bass 1             | 1       | 037  |
| 014                         | Xylophon  | Xylophone             | 1       | 014  | 038            | SlapBas2 | Slap Bass 2             | 1       | 038  |
| 015                         | TubulBel  | Tubular Bells         | 1       | 015  | 039            | SynBass1 | Synth Bass 1            | 1       | 039  |
| 016                         | Dulcimer  | Dulcimer              | 2       | 016  | 040            | SynBass2 | Synth Bass 2            | 1       | 040  |
| <b>Organ</b>                |           |                       |         |      | <b>Strings</b> |          |                         |         |      |
| 017                         | DrawOrgn  | Drawbar Organ         | 1       | 017  | 041            | Violin   | Violin                  | 1       | 041  |
| 018                         | PercOrgn  | Percussive Organ      | 1       | 018  | 042            | Viola    | Viola                   | 1       | 042  |
| 019                         | RockOrgn  | Rock Organ            | 1       | 019  | 043            | Cello    | Cello                   | 1       | 043  |
| 020                         | ChrchOrg  | Church Organ          | 2       | 020  | 044            | ContraBs | Contrabass              | 1       | 044  |
| 021                         | ReedOrgn  | Reed Organ            | 1       | 021  | 045            | Trem.Str | Tremolo Strings         | 1       | 045  |
| 022                         | Acordion  | Accordion             | 2       | 022  | 046            | Pizz.Str | Pizzicato Strings       | 2       | 046  |
| 023                         | Harmnica  | Hamonica              | 1       | 023  | 047            | Harp     | Orchestral Harp         | 1       | 047  |
| 024                         | TangoAcid | Tango Accordion       | 2       | 024  | 048            | Timpani  | Timpani                 | 1       | 048  |

| Voice#          | LCD      | Voice Name        | Element | Pgm# | Voice#            | LCD      | Voice Name         | Element | Pgm# |
|-----------------|----------|-------------------|---------|------|-------------------|----------|--------------------|---------|------|
| <b>Ensemble</b> |          |                   |         |      | <b>Pipe</b>       |          |                    |         |      |
| 049             | Strings1 | String Ensemble 1 | 1       | 049  | 073               | Piccolo  | Piccolo            | 1       | 073  |
| 050             | Strings2 | String Ensemble 2 | 1       | 050  | 074               | Flute    | Flute              | 1       | 074  |
| 051             | Syn.Str1 | Synth Strings 1   | 2       | 051  | 075               | Recorder | Recorder           | 1       | 075  |
| 052             | Syn.Str2 | Synth Strings 2   | 2       | 052  | 076               | PanFlute | Pan Flute          | 1       | 076  |
| 053             | ChoirAah | Choir Aahs        | 1       | 053  | 077               | Bottle   | Blown Bottle       | 2       | 077  |
| 054             | VoiceOoh | Voice Oohs        | 1       | 054  | 078               | Shakhchi | Shakuhachi         | 2       | 078  |
| 055             | SynVoice | Synth Voice       | 1       | 055  | 079               | Whistle  | Whistle            | 1       | 079  |
| 056             | Orch.Hit | Orchestra Hit     | 1       | 056  | 080               | Ocarina  | Ocarina            | 1       | 080  |
| <b>Brass</b>    |          |                   |         |      | <b>Synth Lead</b> |          |                    |         |      |
| 057             | Trumpet  | Trumpet           | 1       | 057  | 081               | SquareLd | Lead 1 (square)    | 2       | 081  |
| 058             | Trombone | Trombone          | 1       | 058  | 082               | Saw.Lead | Lead 2 (sawtooth)  | 2       | 082  |
| 059             | Tuba     | Tuba              | 1       | 059  | 083               | CaliopLd | Lead 3 (calliope)  | 2       | 083  |
| 060             | Mute.Trp | Muted Trumpet     | 1       | 060  | 084               | Chiff Ld | Lead 4 (chiff)     | 2       | 084  |
| 061             | Fr.Horn  | French Horn       | 1       | 061  | 085               | CharanLd | Lead 5 (charang)   | 2       | 085  |
| 062             | BrasSect | Brass Section     | 1       | 062  | 086               | Voice Ld | Lead 6 (voice)     | 2       | 086  |
| 063             | SynBras1 | Synth Brass 1     | 2       | 063  | 087               | Fifth Ld | Lead 7 (fifths)    | 2       | 087  |
| 064             | SynBras2 | Synth Brass 2     | 2       | 064  | 088               | Bass &Ld | Lead 8 (bass+lead) | 2       | 088  |
| <b>Reed</b>     |          |                   |         |      | <b>Synth Pad</b>  |          |                    |         |      |
| 065             | SprnoSax | Soprano Sax       | 1       | 065  | 089               | NewAgePd | Pad 1 (new age)    | 2       | 089  |
| 066             | Alto Sax | Alto Sax          | 1       | 066  | 090               | Warm Pad | Pad 2 (warm)       | 2       | 090  |
| 067             | TenorSax | Tenor Sax         | 1       | 067  | 091               | PolySyPd | Pad 3 (polysynth)  | 2       | 091  |
| 068             | Bari.Sax | Baritone Sax      | 1       | 068  | 092               | ChoirPad | Pad 4 (choir)      | 2       | 092  |
| 069             | Oboe     | Oboe              | 1       | 069  | 093               | BowedPad | Pad 5 (bowed)      | 2       | 093  |
| 070             | Eng.Horn | English Horn      | 1       | 070  | 094               | MetalPad | Pad 6 (metallic)   | 2       | 094  |
| 071             | Bassoon  | Bassoon           | 1       | 071  | 095               | Halo Pad | Pad 7 (halo)       | 2       | 095  |
| 072             | Clarinet | Clarinet          | 1       | 072  | 096               | SweepPad | Pad 8 (sweep)      | 2       | 096  |



## Voice List (Voice# 097 — 128, Dr1 — Dr8)

| Voice#               | LCD      | Voice Name        | Element | Pgm# |
|----------------------|----------|-------------------|---------|------|
| <b>Synth Effects</b> |          |                   |         |      |
| 097                  | Rain     | FX 1 (rain)       | 2       | 097  |
| 098                  | SoundTrk | FX 2 (soundtrack) | 2       | 098  |
| 099                  | Crystal  | FX 3 (crystal)    | 2       | 099  |
| 100                  | Atmosphr | FX 4 (atmosphere) | 2       | 100  |
| 101                  | Bright   | FX 5 (brightness) | 2       | 101  |
| 102                  | Goblins  | FX 6 (goblins)    | 2       | 102  |
| 103                  | Echoes   | FX 7 (echoes)     | 2       | 103  |
| 104                  | SF       | FX 8 (sci-fi)     | 2       | 104  |
| <b>Ethnic</b>        |          |                   |         |      |
| 105                  | Sitar    | Sitar             | 1       | 105  |
| 106                  | Banjo    | Banjo             | 1       | 106  |
| 107                  | Shamisen | Shamisen          | 1       | 107  |
| 108                  | Koto     | Koto              | 1       | 108  |
| 109                  | Kalimba  | Kalimba           | 1       | 109  |
| 110                  | Bagpipe  | Bagpipe           | 2       | 110  |
| 111                  | Fiddle   | Fiddle            | 1       | 111  |
| 112                  | Shanai   | Shanai            | 1       | 112  |
| <b>Percussive</b>    |          |                   |         |      |
| 113                  | TnklBell | Tinkle Bell       | 2       | 113  |
| 114                  | Agogo    | Agogo             | 1       | 114  |
| 115                  | SteelDrm | Steel Drums       | 2       | 115  |
| 116                  | WoodBlok | Woodblock         | 1       | 116  |
| 117                  | TaikoDrm | Taiko Drum        | 1       | 117  |
| 118                  | MelodTom | Melodic Tom       | 1       | 118  |
| 119                  | Syn.Drum | Synth Drum        | 1       | 119  |
| 120                  | RevCymb1 | Reverse Cymbal    | 1       | 120  |

| Voice#               | LCD       | Voice Name        | Element | Pgm# |
|----------------------|-----------|-------------------|---------|------|
| <b>Sound Effects</b> |           |                   |         |      |
| 121                  | FretNoiz  | Guitar Fret Noise | 1       | 121  |
| 122                  | BrthNoiz  | Breath Noise      | 1       | 122  |
| 123                  | Seashore  | Seashore          | 2       | 123  |
| 124                  | Tweet     | Bird Tweet        | 2       | 124  |
| 125                  | Telephone | Telephone Ring    | 1       | 125  |
| 126                  | Helicptr  | Helicopter        | 2       | 126  |
| 127                  | Applause  | Applause          | 2       | 127  |
| 128                  | Gunshot   | Gunshot           | 1       | 128  |

| <b>Drum Kit</b> |           |                |  |     |
|-----------------|-----------|----------------|--|-----|
| Dr1             | Standard  | Standard Kit   |  | 001 |
| Dr2             | Room      | Room Kit       |  | 009 |
| Dr3             | Rock      | Rock Kit       |  | 017 |
| Dr4             | Elctronic | Electronic Kit |  | 025 |
| Dr5             | Analog    | Analog Kit     |  | 026 |
| Dr6             | Jazz      | Jazz Kit       |  | 033 |
| Dr7             | Brush     | Brush Kit      |  | 041 |
| Dr8             | Classic   | Classic Kit    |  | 049 |



## Drum Kit List (Note# 23 — 54)

| Program# |      |         |           | 1                | 9            | 17           | 25                 |
|----------|------|---------|-----------|------------------|--------------|--------------|--------------------|
| Note#    | Note | Key Off | Alternate | Dr1/Standard Kit | Dr2/Room Kit | Dr3/Rock Kit | Dr4/Electronic Kit |
| 23       | B -1 |         |           | Click L          | <—           | <—           | <—                 |
| 24       | C 0  |         |           | Click H          | <—           | <—           | <—                 |
| 25       | C# 0 |         |           | Brush Tap        | <—           | <—           | <—                 |
| 26       | D 0  | O       |           | Brush Swirl L    | <—           | <—           | <—                 |
| 27       | D# 0 |         |           | Brush Slap       | <—           | <—           |                    |
| 28       | E 0  | O       |           | Brush Swirl H    | <—           | <—           | Reverse Cymbal     |
| 29       | F 0  | O       |           | Snare Roll       | <—           | <—           | <—                 |
| 30       | F# 0 |         |           | Castanet         | <—           | <—           | Hi Q               |
| 31       | G 0  |         |           | Snare L          | <—           | SD Power M   | Snare M            |
| 32       | G# 0 |         |           | Sticks           | <—           | <—           | <—                 |
| 33       | A 0  |         |           | Bass Drum L      | <—           | Bass Drum M  | Bass Drum H        |
| 34       | A# 0 |         |           | Open Rim Shot    | <—           | <—           | <—                 |
| 35       | B 0  |         |           | Bass Drum M      | <—           | Bass Drum H  | BD Power           |
| 36       | C 1  |         |           | Bass Drum H      | <—           | BD Power     | BD Gate            |
| 37       | C# 1 |         |           | Side Stick       | <—           | <—           | <—                 |
| 38       | D 1  |         |           | Snare M          | <—           | SD Rock      | SD Power L         |
| 39       | D# 1 |         |           | Hand Clap        | <—           | <—           | <—                 |
| 40       | E 1  |         |           | Snare H          | <—           | SD Power Rim | SD Power H         |
| 41       | F 1  |         |           | Floor Tom L      | Room Tom 1   | Power Tom 1  | E Tom 1            |
| 42       | F# 1 |         | 1         | Closed Hi Hat    | <—           | <—           | <—                 |
| 43       | G 1  |         |           | Floor Tom H      | Room Tom 2   | Power Tom 2  | E Tom 2            |
| 44       | G# 1 |         | 1         | Pedal Hi-Hat     | <—           | <—           | <—                 |
| 45       | A 1  |         |           | Low Tom          | Room Tom 3   | Power Tom 3  | E Tom 3            |
| 46       | A# 1 |         | 1         | Hi-Hat Open      | <—           | <—           | <—                 |
| 47       | B 1  |         |           | Mid Tom L        | Room Tom 4   | Power Tom 4  | E Tom 4            |
| 48       | C 2  |         |           | Mid Tom H        | Room Tom 5   | Power Tom 5  | E Tom 5            |
| 49       | C# 2 |         |           | Crash Cymbal 1   | <—           | <—           | <—                 |
| 50       | D 2  |         |           | High Tom         | Room Tom 6   | Power Tom 6  | E Tom 6            |
| 51       | D# 2 |         |           | Ride Cymbal 1    | <—           | <—           | <—                 |
| 52       | E 2  |         |           | Chinese Cymbal   | <—           | <—           | <—                 |
| 53       | F 2  |         |           | Ride Cymbal Cup  | <—           | <—           | <—                 |
| 54       | F# 2 |         |           | Tambourine       | <—           | <—           | <—                 |

| pgm#  |      | 1                | 26                 | 33           | 41            | 49                |
|-------|------|------------------|--------------------|--------------|---------------|-------------------|
| Note# | Note | Dr1/Standard Kit | Dr5/Analog Kit     | Dr6/Jazz Kit | Dr7/Brush Kit | Dr8/Classic Kit   |
| 23    | B -1 | Click L          | <—                 | <—           | <—            | <—                |
| 24    | C 0  | Click H          | <—                 | <—           | <—            | <—                |
| 25    | C# 0 | Brush Tap        | <—                 | <—           | <—            | <—                |
| 26    | D 0  | Brush Swirl L    | <—                 | <—           | <—            | <—                |
| 27    | D# 0 | Brush Slap       | <—                 | <—           | <—            | <—                |
| 28    | E 0  | Brush Swirl H    | Reverse Cymbal     | <—           | <—            | <—                |
| 29    | F 0  | Snare Roll       | <—                 | <—           | <—            | <—                |
| 30    | F# 0 | Castanet         | Hi Q               | <—           | <—            | <—                |
| 31    | G 0  | Snare L          | SD Power H         | <—           | Brush Slap L  | <—                |
| 32    | G# 0 | Sticks           | <—                 | <—           | <—            | <—                |
| 33    | A 0  | Bass Drum L      | Bass Drum M        | <—           | <—            | <—                |
| 34    | A# 0 | Open Rim Shot    | <—                 | <—           | <—            | <—                |
| 35    | B 0  | Bass Drum M      | BD Analog L        | <—           | <—            | <—                |
| 36    | C 1  | Bass Drum H      | BD Analog H        | <—           | <—            | Gran Cassa        |
| 37    | C# 1 | Side Stick       | Analog Side Stick  | <—           | <—            | <—                |
| 38    | D 1  | Snare M          | Analog Snare L     | <—           | Brush Slap    | <—                |
| 39    | D# 1 | Hand Clap        | <—                 | <—           | <—            | <—                |
| 40    | E 1  | Snare H          | Analog Snare H     | <—           | Brush Tap     | <—                |
| 41    | F 1  | Floor Tom L      | Analog Tom 1       | Jazz Tom 1   | Brush Tom 1   | Jazz Tom 1        |
| 42    | F# 1 | Closed Hi Hat    | Analog HH Closed 1 | <—           | <—            | <—                |
| 43    | G 1  | Floor Tom H      | Analog Tom 2       | Jazz Tom 2   | Brush Tom 2   | Jazz Tom 2        |
| 44    | G# 1 | Pedal Hi-Hat     | Analog HH Closed 2 | <—           | <—            | <—                |
| 45    | A 1  | Low Tom          | Analog Tom 3       | Jazz Tom 3   | Brush Tom 3   | Jazz Tom 3        |
| 46    | A# 1 | Hi-Hat Open      | Analog HH Open     | <—           | <—            | <—                |
| 47    | B 1  | Mid Tom L        | Analog Tom 4       | Jazz Tom 4   | Brush Tom 4   | Jazz Tom 4        |
| 48    | C 2  | Mid Tom H        | Analog Tom 5       | Jazz Tom 5   | Brush Tom 5   | Jazz Tom 5        |
| 49    | C# 2 | Crash Cymbal 1   | <—                 | <—           | <—            | Hand Cym.Open L   |
| 50    | D 2  | High Tom         | Analog Tom 6       | Jazz Tom 6   | Brush Tom 6   | Jazz Tom 6        |
| 51    | D# 2 | Ride Cymbal 1    | <—                 | <—           | <—            | Hand Cym.Closed L |
| 52    | E 2  | Chinese Cymbal   | <—                 | <—           | <—            | <—                |
| 53    | F 2  | Ride Cymbal Cup  | <—                 | <—           | <—            | <—                |
| 54    | F# 2 | Tambourine       | <—                 | <—           | <—            | <—                |

## Drum Kit List (Note# 55 — 85)

| Program# |      |         |           | 1                | 9            | 17           | 25                 |
|----------|------|---------|-----------|------------------|--------------|--------------|--------------------|
| Note#    | Note | Key Off | Alternate | Dr1/Standard Kit | Dr2/Room Kit | Dr3/Rock Kit | Dr4/Electronic Kit |
| 55       | G 2  |         |           | Splash Cymbal    | <←           | <←           | <←                 |
| 56       | G# 2 |         |           | Cowbell          | <←           | <←           | <←                 |
| 57       | A 2  |         |           | Crash Cymbal 2   | <←           | <←           | <←                 |
| 58       | A# 2 |         |           | Vibraslap        | <←           | <←           | <←                 |
| 59       | B 2  |         |           | Ride Cymbal 2    | <←           | <←           | <←                 |
| 60       | C 3  |         |           | Bongo H          | <←           | <←           | <←                 |
| 61       | C# 3 |         |           | Bongo L          | <←           | <←           | <←                 |
| 62       | D 3  |         |           | Conga H Mute     | <←           | <←           | <←                 |
| 63       | D# 3 |         |           | Conga H Open     | <←           | <←           | <←                 |
| 64       | E 3  |         |           | Conga L          | <←           | <←           | <←                 |
| 65       | F 3  |         |           | Timbale H        | <←           | <←           | <←                 |
| 66       | F# 3 |         |           | Timbale L        | <←           | <←           | <←                 |
| 67       | G 3  |         |           | High Agogo       | <←           | <←           | <←                 |
| 68       | G# 3 |         |           | Low Agogo        | <←           | <←           | <←                 |
| 69       | A 3  |         |           | Cabassa          | <←           | <←           | <←                 |
| 70       | A# 3 |         |           | Maracas          | <←           | <←           | <←                 |
| 71       | B 3  | O       |           | Samba Whistle H  | <←           | <←           | <←                 |
| 72       | C 4  | O       |           | Samba Whistle L  | <←           | <←           | <←                 |
| 73       | C# 4 |         |           | Guiro Short      | <←           | <←           | <←                 |
| 74       | D 4  | O       |           | Guiro Long       | <←           | <←           | <←                 |
| 75       | D# 4 |         |           | Claves           | <←           | <←           | <←                 |
| 76       | E 4  |         |           | Wood Block H     | <←           | <←           | <←                 |
| 77       | F 4  |         |           | Wood Block L     | <←           | <←           | <←                 |
| 78       | F# 4 |         |           | Cuica Mute       | <←           | <←           | Scratch Push       |
| 79       | G 4  |         |           | Cuica Open       | <←           | <←           | Scratch Pull       |
| 80       | G# 4 |         | 2         | Triangle Mute    | <←           | <←           | <←                 |
| 81       | A 4  |         | 2         | Triangle Open    | <←           | <←           | <←                 |
| 82       | A# 4 |         |           | Shaker           | <←           | <←           | <←                 |
| 83       | B 4  |         |           | Jingle Bell      | <←           | <←           | <←                 |
| 84       | C 5  |         |           | Bell Tree        | <←           | <←           | <←                 |
| 85       | C# 5 |         |           | Hi Q             | <←           | <←           | <←                 |

| pgm#  |      | 1                | 26             | 33           | 41            | 49                |
|-------|------|------------------|----------------|--------------|---------------|-------------------|
| Note# | Note | Dr1/Standard Kit | Dr5/Analog Kit | Dr6/Jazz Kit | Dr7/Brush Kit | Dr8/Classic Kit   |
| 55    | G 2  | Splash Cymbal    | <←             | <←           | <←            | <←                |
| 56    | G# 2 | Cowbell          | <←             | <←           | <←            | <←                |
| 57    | A 2  | Crash Cymbal 2   | <←             | <←           | <←            | Hand Cym.Open H   |
| 58    | A# 2 | Vibraslap        | <←             | <←           | <←            | <←                |
| 59    | B 2  | Ride Cymbal 2    | <←             | <←           | <←            | Hand Cym.Closed H |
| 60    | C 3  | Bongo H          | <←             | <←           | <←            | <←                |
| 61    | C# 3 | Bongo L          | <←             | <←           | <←            | <←                |
| 62    | D 3  | Conga H Mute     | Analog Conga H | <←           | <←            | <←                |
| 63    | D# 3 | Conga H Open     | Analog Conga M | <←           | <←            | <←                |
| 64    | E 3  | Conga L          | Analog Conga L | <←           | <←            | <←                |
| 65    | F 3  | Timbale H        | <←             | <←           | <←            | <←                |
| 66    | F# 3 | Timbale L        | <←             | <←           | <←            | <←                |
| 67    | G 3  | High Agogo       | <←             | <←           | <←            | <←                |
| 68    | G# 3 | Low Agogo        | <←             | <←           | <←            | <←                |
| 69    | A 3  | Cabassa          | <←             | <←           | <←            | <←                |
| 70    | A# 3 | Maracas          | <←             | <←           | <←            | <←                |
| 71    | B 3  | Samba Whistle H  | <←             | <←           | <←            | <←                |
| 72    | C 4  | Samba Whistle L  | <←             | <←           | <←            | <←                |
| 73    | C# 4 | Guiro Short      | <←             | <←           | <←            | <←                |
| 74    | D 4  | Guiro Long       | <←             | <←           | <←            | <←                |
| 75    | D# 4 | Claves           | <←             | <←           | <←            | <←                |
| 76    | E 4  | Wood Block H     | <←             | <←           | <←            | <←                |
| 77    | F 4  | Wood Block L     | <←             | <←           | <←            | <←                |
| 78    | F# 4 | Cuica Mute       | Scratch Push   | <←           | <←            | <←                |
| 79    | G 4  | Cuica Open       | Scratch Pull   | <←           | <←            | <←                |
| 80    | G# 4 | Triangle Mute    | <←             | <←           | <←            | <←                |
| 81    | A 4  | Triangle Open    | <←             | <←           | <←            | <←                |
| 82    | A# 4 | Shaker           | <←             | <←           | <←            | <←                |
| 83    | B 4  | Jingle Bell      | <←             | <←           | <←            | <←                |
| 84    | C 5  | Bell Tree        | <←             | <←           | <←            | <←                |
| 85    | C# 5 | Hi Q             | <←             | <←           | <←            | <←                |

## Preset Pattern List

| No.           | Style Name |                            | Time Signature | QY20's No. |     |  |
|---------------|------------|----------------------------|----------------|------------|-----|--|
| <b>Dance</b>  |            |                            |                |            |     |  |
| 001           | DA RaveQ   | Rave                       | 4/4            | 007        |     |  |
| 002           | DA Tekno   | Techno                     | 4/4            |            |     |  |
| 003           | DA Jazzy   | Acid Jazz                  | 4/4            |            |     |  |
| 004           | DA AcidJ   | Cool Acid Jazz             | 4/4            |            |     |  |
| 005           | DA Light   | Techno House               | 4/4            |            | 010 |  |
| 006           | DA Craze   | House Pop Dance            | 4/4            |            | 008 |  |
| 007           | DA Grand   | Groundbeat                 | 4/4            |            | 028 |  |
| 008           | DA Rappr   | Rap                        | 4/4            |            | 016 |  |
| 009           | DA Dark?   | Dark Rap                   | 4/4            |            |     |  |
| 010           | DA Mitch   | Rap Shuffle                | 4/4            |            | 017 |  |
| 011           | DA JackS   | New Jack Swing             | 4/4            | 002        |     |  |
| 012           | DA Mage!   | Heavy Dance                | 4/4            |            |     |  |
| 013           | DA Frame   | German Dance               | 4/4            |            | 003 |  |
| 014           | DA EuroB   | Eurobeat                   | 4/4            |            | 004 |  |
| 015           | DA ABCDE   | '80s Pop Dance             | 4/4            |            |     |  |
| 016           | DA Disco   | Disco                      | 4/4            |            | 005 |  |
| 017           | DA Train   | '70s Disco Funk            | 4/4            |            | 006 |  |
| 018           | DA Coast   | Dance Funk                 | 4/4            |            | 019 |  |
| <b>Ballad</b> |            |                            |                |            |     |  |
| 019           | BA Llade   | 8-Beat Ballad              | 4/4            |            |     |  |
| 020           | BA Group   | 8-Beat Pop Ballad          | 4/4            | 020        |     |  |
| 021           | BA Gofer   | Blue-eyed Soul Ballad      | 4/4            | 021        |     |  |
| 022           | BA Quiet   | Folk Ballad                | 4/4            | 022        |     |  |
| 023           | BA Lovlt   | Country Ballad             | 4/4            | 023        |     |  |
| 024           | BA Magma   | Ambient House Ballad       | 4/4            | 024        |     |  |
| 025           | BA Venus   | 16-beat Ballad             | 4/4            | 025        |     |  |
| 026           | BA Human   | Dark Electronic Pop Ballad | 4/4            | 026        |     |  |

| No.                       | Style Name |                            | Time Signature | QY20's No. |     |
|---------------------------|------------|----------------------------|----------------|------------|-----|
| 027                       | BA RioDJ   | Latin Ballad               | 4/4            | 027        |     |
| 028                       | BA Witby   | 6/8 Pop Ballad             | 4/4            | 029        |     |
| 029                       | BA RWalz   | 6/4 Soul Ballad            | 6/4            | 030        |     |
| 030                       | BA CWalz   | Country Ballad Waltz       | 3/4            | 031        |     |
| 031                       | BA EWalz   | Slow Ballad Waltz          | 3/4            | 032        |     |
| <b>Rock &amp; Pop</b>     |            |                            |                |            |     |
| 032                       | RP Mouth   | Country Rock               | 4/4            | 034        |     |
| 033                       | RP Party   | '70s 8-Beat Pop            | 4/4            |            |     |
| 034                       | RP GetUp   | Glam Rock                  | 4/4            |            |     |
| 035                       | RP Stone   | '70s Mid-Tempo Rock        | 4/4            |            |     |
| 036                       | RP Rozza   | '80s Mid-Tempo Pop         | 4/4            |            | 035 |
| 037                       | RP Faces   | '80s Synth Pop             | 4/4            |            | 036 |
| 038                       | RP Urple   | '80s Dance Pop             | 4/4            |            | 037 |
| 039                       | RP Rhino   | 16-Beat Pop                | 4/4            |            | 038 |
| 040                       | RP N.Y.!   | New York Pop               | 4/4            |            | 039 |
| 041                       | RP Start   | Country Rock Shuffle       | 4/4            |            | 041 |
| 042                       | RP Troll   | Detroit Pop Shuffle        | 4/4            | 042        |     |
| 043                       | RP Earth   | '80s Mid-Tempo Pop Shuffle | 4/4            | 044        |     |
| 044                       | RP Candy   | Jazzy Pop Shuffle          | 4/4            | 045        |     |
| 045                       | RP RkBgY   | Rock Boogie                | 4/4            | 046        |     |
| 046                       | RP SeeYa   | Rock Shuffle               | 4/4            |            |     |
| 047                       | RP River   | Southern Rock Shuffle      | 4/4            |            |     |
| 048                       | RP Judge   | '80s Dance Pop Shuffle     | 4/4            |            |     |
| <b>Rhythm &amp; Bules</b> |            |                            |                |            |     |
| 049                       | RB Good!   | '60s Rhythm & Blues        | 4/4            | 051        |     |
| 050                       | RB Shore   | Mid-Tempo R&B              | 4/4            |            |     |
| 051                       | RB Motor   | Detroit R&B                | 4/4            |            |     |
| 052                       | RB Going   | Light Soul                 | 4/4            |            |     |

| No.                    | Style Name |                              | Time Signature | QY20's No. |
|------------------------|------------|------------------------------|----------------|------------|
| 053                    | RB Funky   | '60s Funk Shuffle            | 4/4            | 013        |
| 054                    | RB Brass   | West Coast R&B Funk          | 4/4            | 054        |
| 055                    | RB NFunk   | Modern Funk                  | 4/4            | 055        |
| 056                    | RB JFunk   | Jazz Funk                    | 4/4            |            |
| 057                    | RB CFS01   | Blues Shuffle                | 4/4            | 057        |
| 058                    | RB Blues   | 6/8 Blues                    | 4/4            |            |
| 059                    | RB SBlus   | Slow Blues                   | 4/4            |            |
| 060                    | RB Lucky   | Bluesy R&B                   | 4/4            | 058        |
| 061                    | RB South   | Southern Gospel              | 6/8            | 060        |
| 062                    | RB Free!   | R&B Gospel                   | 4/4            |            |
| <b>Hard Rock</b>       |            |                              |                |            |
| 063                    | HR Speed   | Hi-Tempo Hard Rock           | 4/4            | 061        |
| 064                    | HR Drive   | Mid-Tempo American Hard Rock | 4/4            | 062        |
| 065                    | HR HurtN   | Hard Rock Ballad             | 4/4            | 063        |
| 066                    | HR Piles   | Slash Metal                  | 4/4            | 065        |
| 067                    | HR BoogE   | Hard Rock Shuffle            | 4/4            | 066        |
| 068                    | HR Help!   | 6/8 Progressive Rock         | 6/8            | 067        |
| <b>Rock &amp; Roll</b> |            |                              |                |            |
| 069                    | RR Twist   | Twist                        | 4/4            |            |
| 070                    | RR Crock   | '50s Rock & Roll             | 4/4            |            |
| 071                    | RR BgWgy   | Boogie Woogie                | 4/4            |            |
| 072                    | RR Billy   | Rockabilly                   | 4/4            | 072        |
| 073                    | RR Gravy   | '60s British Rock & Roll     | 4/4            | 069        |
| 074                    | RR Jngle   | 16-Beat Rock & Roll          | 4/4            |            |
| <b>Jazz</b>            |            |                              |                |            |
| 075                    | JA Dook!   | '40s Jazz                    | 4/4            | 074        |
| 076                    | JA Swing   | Big Band Swing               | 4/4            | 075        |

| No.           | Style Name |                    | Time Signature | QY20's No. |
|---------------|------------|--------------------|----------------|------------|
| 077           | JA Bebop   | Bebop              | 4/4            |            |
| 078           | JA Dixie   | Dixie              | 4/4            | 077        |
| 079           | JA Zzz..   | Jazz Ballad        | 4/4            | 078        |
| 080           | JA Foxy!   | Slow Fox           | 4/4            | 079        |
| 081           | JA Vince   | Jazz Waltz         | 3/4            | 080        |
| 082           | JA WFuse   | West Coast Fusion  | 4/4            |            |
| 083           | JA EFuse   | '80s Fusion        | 4/4            | 082        |
| <b>Latin</b>  |            |                    |                |            |
| 084           | LA Salsa   | Salsa              | 4/4            | 083        |
| 085           | LA Samba   | Jazz Samba         | 4/4            | 086        |
| 086           | LA Bossa   | Pop Bossa Nova     | 4/4            | 087        |
| 087           | LA TinRk   | Latin Rock         | 4/4            |            |
| 088           | LA Rumba   | Rumba              | 4/4            | 089        |
| 089           | LA Tango   | Tango              | 4/4            | 090        |
| 090           | LA Espag   | Rumba Espagnole    | 4/4            |            |
| <b>Reggae</b> |            |                    |                |            |
| 091           | RE Cycle   | Traditional Reggae | 4/4            | 091        |
| 092           | RE Tired   | Pop Reggae Shuffle | 4/4            | 092        |
| 093           | RE Gular   | 16-Beat Pop Reggae | 4/4            | 093        |
| 094           | RE SkyBt   | Ska                | 4/4            |            |
| <b>World</b>  |            |                    |                |            |
| 095           | WO Grass   | Bluegrass          | 4/4            | 095        |
| 096           | WO Polka   | Polka              | 4/4            | 096        |
| 097           | WO Mrch1   | March              | 4/4            | 097        |
| 098           | WO Mrch2   | 6/8 March          | 4/4            |            |
| 099           | WO Waltz   | Vienna Waltz       | 3/4            | 099        |
| 100           | WO RCade   | Game Music         | 4/4            | 100        |



## ABC Fingering Chart

This chart shows the chord fingerings recognized by the QY22 ABC system. 3-, 4-, and 5-note fingerings can be used, depending on the inversion and tensions required. In the fingerings “1” is the root, “3” is the 3rd, “7” is the seventh, and so on. The “Comments” column indicates inversions that should be avoided because they produce a different chord.

| Chord Type | 3-note Chord | 4-note Chord | 5-note Chord | Comments (for C chords)  |
|------------|--------------|--------------|--------------|--|
| Maj7       | 1+3+7        |              |              | Amadd9 when E is the lowest note.                                      |
|            | 1+5+7        |              |              |  |
| Maj        |              | 1+3+5+7      |              |  |
| 6          | 1+3+5        |              |              |  |
|            | 3+5+6        |              |              |  |
| Maj9       |              | 1+3+5+6      |              | Am7 when lowest note is not C.   |
|            |              | 1+3+7+9      |              |  |
| add9       |              |              | 1+3+5+7+9    |  |
|            | 3+5+9        | 1+3+5+9      |              | Em7 when E is the lowest note.   |
| min        | 1+♭3+5       |              |              |  |
| min6       |              | 1+♭3+5+6     |              | F9 when E♭ is the lowest note, Am7(♭5) when G or A is the lowest note. |
| min7       | 1+♭3+♭7      |              |              | A♭add9 when E♭ or B♭ is the lowest note.                               |
|            |              | 1+♭3+5+♭7    |              | E♭6 when E♭ is the lowest note.  |
| min7(♭5)   |              | 1+♭3+♭5+♭7   |              | E♭m6 when E♭ is the lowest note, A♭9 when G♭ is the lowest note.       |
| mMaj7      | 1+♭3+7       |              |              |  |
|            |              | 1+♭3+5+7     |              |  |
| min9       |              | 1+♭3+♭7+9    |              |  |
|            |              |              | 1+♭3+5+♭7+9  |  |
| minadd9    |              | 1+♭3+5+9     |              |  |
|            | ♭3+5+9       |              |              | E♭Maj7 when E♭ or D is the lowest note.                                |

## ABC Fingering Chart

| Chord Type     | 3-note Chord             | 4-note Chord                | 5-note Chord                           | Comments (for C chords)  |
|----------------|--------------------------|-----------------------------|--|--|
| min7(11)       |                          | 1+ $\flat$ 3+ $\flat$ 7+11  | 1+ $\flat$ 3+5+ $\flat$ 7+11           | F7sus4 when F or B $\flat$ is the lowest note.                                 |
| 7              | 1+3+ $\flat$ 7           | 1+3+5+ $\flat$ 7            |  |  |
| 7(#5)          | 3+ $\sharp$ 5+ $\flat$ 7 | 1+3+ $\sharp$ 5+ $\flat$ 7  |  |  |
| 7( $\flat$ 9)  |                          | 1+3+ $\flat$ 7+ $\flat$ 9   | 1+3+5+ $\flat$ 7+ $\flat$ 9            |  |
| 9              |                          | 1+3+ $\flat$ 7+9            |  | Em7( $\flat$ 5) when E or D is the lowest note, Gm6 when G is the lowest note. |
|                |                          | 3+5+ $\flat$ 7+9            | 1+3+5+ $\flat$ 7+9                     |  |
| 7(#9)          | 3+ $\flat$ 7+ $\sharp$ 9 | 1+3+ $\flat$ 7+ $\sharp$ 9  |  |  |
|                |                          | 3+5+ $\flat$ 7+ $\sharp$ 9  |  |  |
|                |                          |                             | 1+3+5+ $\flat$ 7+ $\sharp$ 9           |  |
| 7(#11)         |                          | 1+3+ $\flat$ 7+ $\sharp$ 11 | 1+3+5+ $\flat$ 7+ $\sharp$ 11          | F#7(#11) when F# or E is the lowest note.                                      |
|                |                          |                             |  |  |
|                |                          | 3+5+ $\flat$ 7+ $\flat$ 13  |  |  |
| 7( $\flat$ 13) |                          |                             | 1+3+5+ $\flat$ 7+ $\flat$ 13           |  |
|                |                          |                             | 1+3+ $\flat$ 7+ $\flat$ 9+ $\flat$ 13  |  |
|                |                          |                             | 1+3+ $\flat$ 7+9+ $\flat$ 13           |  |
|                |                          |                             | 1+3+ $\flat$ 7+ $\sharp$ 9+ $\flat$ 13 |  |
| 7(13)          |                          | 1+3+ $\flat$ 7+13           |  |  |
|                |                          | 3+5+ $\flat$ 7+13           |  |  |
|                |                          | 3+ $\flat$ 7+9+13           |  |  |
|                |                          |                             | 1+3+5+ $\flat$ 7+13                    |  |
|                |                          |                             | 1+3+ $\flat$ 7+ $\flat$ 9+13           |  |
|                |                          |                             | 1+3+ $\flat$ 7+9+13                    |  |
| 7sus4          | 1+4+ $\flat$ 7           |                             |  | Fsus4 when lowest note is not C.   |
|                |                          | 1+4+5+ $\flat$ 7            |  | Gm7(11) when G or B $\flat$ is the lowest note.                                |
| sus4           | 1+4+5                    |                             |  | G7sus4 when G is the lowest note.  |
| dim            |                          | 1+ $\flat$ 3+ $\flat$ 5+6   |  | Only C (root) accepted as lowest note.   |
| aug            | 1+3+ $\sharp$ 5          |                             |  | Only C (root) accepted as lowest note.   |

## Troubleshooting

If something doesn't seem to be working right, please check the following points before assuming that your QY22 is faulty.

| Symptom   | Possible Causes   |
|---|---|
| Power won't turn on.                                  | If you are using an AC adaptor, is the adaptor properly plugged into both the AC outlet and the QY22? See page 18.  |
|   | If you are using batteries, is a fresh set of batteries properly installed in the battery compartment? See page 16. |
| No sound.   | Is the volume control set to an appropriate level? See page 33.   |
|   | Are the volume parameters for each track set to appropriate levels? See page 40.                                    |
| Wrong pitch.  | Is the transpose parameter set to the normal value ("0")? See page 111.   |
| Notes are cut off or omitted.                         | Is the maximum polyphony of the QY22 being exceeded? The QY22 can play no more than 28 notes at once.               |
| Playback doesn't begin when the [▶/■] key is pressed. | You may have selected a song or pattern that contains no data? See page 42.   |
|   | Playback can not be controlled from the QY22 panel when the MIDI Sync parameter is set to "Ext". See page 160.      |

**Troubleshooting**

| <b>Symptom</b>  | <b>Possible Causes</b>   |
|---|--|
| The time signature cannot be changed.                               | The time signature cannot be changed for songs or patterns that already contain data.  |
| Playback stops in the middle of a song.                             | Have you inserted an end marker in the song? See page 70.  |
|   | Have you inserted an ending section of a preset pattern in the middle of the song? See page 62.  |
| ABC doesn't work.   | The ABC Zone function may be turned OFF. See page 165.   |
|   | Are the ABC Zone high and low limits set to appropriate notes? See page 165.   |
|   | Is the cursor placed at a location other than the chord display? See page 47.  |
| The time signature and/or pattern changes when the song is started. | Most likely the time signature and pattern changes have been recorded onto the accompaniment tracks. See page 62.                                |
| Bulk data not received.   | Is the QY22 device number set to match that of the transmitting device? See page 161.  |
|   | Is the song play or pattern play display showing? See page 164.  |
|   | If you are receiving a 1-song or 1-pattern bulk dump, is the currently select song or pattern empty and therefore available to receive the data? |
|   | Bulk data cannot be received during song or pattern playback.  |

## Error Messages

---

Errors do occur from time to time, and when they do the QY22 will usually display a message that indicates what type of problem has occurred so you can rectify it and return to normal operation as quickly as possible.

### Illegal Input

This error appears if you attempt to enter a value that is out of range or otherwise unacceptable in the current situation.

### Memory Full

The QY22 memory is full or almost full and the specified operation cannot be performed. Delete unwanted song and/or pattern data to make more memory available.

### Battery Low

The battery voltage is too low for proper operation. The sound may also become distorted when this display appears. Replace the old batteries with a set of new ones as soon as possible. Internal data will be retained while the batteries are replaced.

### Backup Batt. Low

Appears when the power is turned on if the internal memory backup battery is too low to maintain the internal memory data. Have the backup battery replaced by qualified Yamaha service personnel.

### Now Working

This error may appear if a data error is detected when the QY22 power is turned on. The “Now Working” display indicates that the data is being repaired ... wait a few moments until the error message disappears.

### Preset Pattern

Since the preset patterns cannot be changed in any way, this error message will appear if you attempt to execute any operation that is intended to alter the pattern data while a preset pattern is selected.

### Repeat Exist

This error message will appear if you copy a chord part using the song job copy measure function while one or more repeats exist in the accompaniment tracks. Delete all repeats in the step record mode and then execute the copy measure function as required.

**MIDI Data**

An error has been detected in the MIDI data received by the QY22. Check all relevant settings, then try receiving the data again.

**Check Sum**

An error has been detected in a MIDI bulk dump received by the QY22. Check all relevant settings, then try receiving the data again.

**Buffer Full**

Too much MIDI data is being received by the QY22 at one time. Reduce the amount of data that is being sent to the QY22.

**Illegal Data**

Unrecognizable bulk data has been received by the QY22. Make sure that all bulk data sent to the QY22 conforms with QY22 MIDI specifications.

**Device# Off**

Bulk data could not be transmitted or received because the device number parameter is set to "Off". Set an appropriate device number before transmitting or receiving bulk data.

**Device# Mismatch**

Bulk data could not be received because the device number of the QY22 does not match that of the data. Set the QY22 device number parameter to the appropriate number (or "All"), then try receiving the data again.

**Now Running**

A MIDI bulk dump has been received during song or pattern playback (in this case the bulk data is lost). Stop playback and try receiving the bulk data again.

**Data Exist**

A 1-song or 1-pattern bulk dump has been received but the currently selected song or pattern already contains data so the received data was not loaded. Make sure an empty song or pattern is selected when receiving this type of data.

**Bulk Ignored**

Bulk data was transmitted to the QY22 while it was in a mode in which bulk data reception is not possible. The QY22 can only receive bulk data while the song or pattern play display is showing.

## Specifications

### Sequencer

|                 |   |
|-----------------|---|
| No. of Tracks   | Song mode: 8<br>(TR1 ... TR4, Accompaniment x 4)<br>Pattern mode: 4<br>(C1, C2, Ba, Dr) |
| Record Modes    | Realtime, Step  |
| Data Capacity   | Approximately 28,000 notes<br>20 songs<br>100 user patterns                             |
| Preset Patterns | 600 (100 patterns x 6 sections:<br>intro, normal, variation, fill 1, fill 2,<br>ending) |
| Preset Chords   | 25 types  |
| Note Resolution | 96 clocks per quarter note  |
| Polyphony       | 32 notes  |

### Tone Generator

|                    |                                    |
|--------------------|------------------------------------|
| Type               | AWM (Advanced Wave Memory)         |
| Max. Polyphony     | 28 notes                           |
| Multi-timbre Parts | 16 (with dynamic voice allocation) |
| Preset Voices      | 128 pitched voices<br>8 drum kits  |

|                           |   |
|---------------------------|---|
| Display                   | 128 x 64 dot graphic liquid crystal display   |
| Connectors                | Output (mini stereo phone jack)<br>Headphone (mini stereo phone jack)<br>DC IN<br>MIDI IN<br>MIDI OUT           |
| Power Supply              | Six 1.5V AA size (SUM-3 or R6P) or equivalent alkaline batteries<br>Optional PA-3, PA-4, or PA-40<br>AC Adaptor |
| Dimensions<br>(W x H x D) | 188 x 37 x 104 mm<br>7-3/8" x 1-1/2" x 4-1/8"   |
| Weight                    | Approx. 400 g (14 oz) without batteries   |





## A

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

## 2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

## 3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

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

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

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

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

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