# CHAPTER 4

# **BASIC ARCHITECTURE**

The QS contains 16 megabytes of Sound ROM which provide digitized acoustic and electronic **samples**. These samples are organized into 17 **sample groups** of different types. The groups are:

Piano	String	Noise	Sound FX
Chromatic	Brass	Voice	Rhythm
Organ	Woodwind	Ethnic	-
Guitar	Synth	Drums	
Bass	Wave	Percussion	

Several functions (filter, amplitude envelope, pitch envelope, LFO, multiple modulation sources, signal processors, etc.) can be used to process a sample. A **Sound** is the combination of a sample with its associated processing.

A **Program** consists of up to four sounds. These sounds can be layered, split over specific keyboard ranges, or selectively overlapped. The QS has a User Bank of 128 Programs that you can modify, plus 4 Preset Banks of 512 Preset Programs that are permanently installed in the QS at the factory (although the Preset Programs can be edited, they must be stored into the User bank to permanently retain your changes). Each Program is linked to its own Effects Patch.

Preset Banks 1-3 and the User bank are organized into 13 **Sound Groups** of 10 Sounds each, and are spread out among the top-right row of buttons on the front panel (programs 00-09 are pianos, 50-59 are basses, and so on). The GenMIDI bank, however, does not follow this arrangement; it follows the program list of the General MIDI standard.

A **Mix** consists of up to 16 Programs, each assigned to a specific MIDI channel and one Effect Patch. The QS has 100 Mixes in the User Bank, plus 4 Preset Banks of 400 Preset Mixes. This is extremely useful for multitimbral setups where the QS plays back different sounds on different MIDI channels. Because of its 64 voices and built-in effects, the QS is often the only sound generator needed.

# **QS** POLYPHONY

The QS provides 64-voice **polyphony** (i.e., how many notes can play at once). If a program uses one sound, up to 64 notes can play at once. Layering two sounds allows for 32-note polyphony and layering four sounds, 16-note polyphony.

Layering is a powerful technique that allows you to build up complex timbres. This is crucial because acoustic instruments have extremely complex, evolving sounds and by comparison, many synths sound static. Being able to layer up to four sounds allows for creating large ensembles (e.g., brass section consisting of alto & tenor sax, trumpet, and trombone) or extremely realistic versions of single instruments. When creating layered Programs, keep polyphony in mind. If all Programs in a Mix use all four available sounds, the QS will quickly run out of voices.

# MODES

The QS is always in one of two main modes: Program Play Mode or Mix Play Mode. Pressing [PROGRAM] selects Program Play Mode, while pressing [MIX] selects Mix Play Mode. While in Program Play Mode, you can press [EDIT SELECT] to access Program Edit Mode and Effects Edit Mode. While in Mix Play Mode, pressing [EDIT SELECT] alternates between Mix Edit Mode, Program Edit Mode and Effects Edit Mode. Once [EDIT SELECT] has been pressed (the upper-left corner of the display reads "ED:"), pressing [ BANK] accesses Compare Mode (if the Program/Mix has been edited, and pressing [BANK ] accesses Global Edit Mode. Pressing [STORE] accesses Store Mode. Here are descriptions of these modes:

#### PROGRAM PLAY MODE

Program Play Mode lets you play the QS's various Programs one at a time. The QS contains 512 Preset and 128 User *Programs* (i.e., the sounds of various instruments, effects, ensembles, etc.) that show off just how cool this instrument really is. Initially, the 4 Preset Banks and the User Bank contain data loaded in at the factory. The User Programs can be edited or replaced with your own Programs. However, you cannot replace the Preset Programs, because these are stored in ROM (permanent memory). In Program Play Mode, the QS responds to or generates messages on a single MIDI channel.

# MIX PLAY MODE

Mix Play Mode lets you audition the QS's various Mixes, and use it as a MIDI master controller. The QS contains 400 Preset Mixes and 100 User Mixes. A Mix can combine up to 16 different Programs, and the keyboard can generate up to 16 channels of MIDI data at once. Therefore, much thicker and richly textured sounds can be created. In Mix Play Mode, the QS can be used in a wide range of applications. It can be used for live performance, in which sounds are layered or assigned to sections of the keyboard. It can also be used as a multitimbral sound source for desktop music and home studio applications. A Mix can use the Effects Patch associated with one of its Programs. Although there may be 16 Programs in a Mix, there can only be one Effects Patch per Mix. In Mix Mode, the QS can respond to messages on up to 16 MIDI channels simultaneously; different channels are available depending on which Mix is selected.

# PROGRAM EDIT MODE

In Program Edit Mode, you can change the various settings which determine the sound of an individual Program, or create an entirely new Program from scratch. Each Program is made up of four Sound layers, which you can edit individually, or simultaneously. In Program Edit mode you can:

- select which sample waveform from the 16 megabytes of onboard sample ROM will be used, in each of the 4 sounds;
- change the tone, level, attack and decay characteristics, modulation inputs, and pitch of each layer;
- set modulation routings whereby any parameter can be controlled via MIDI;
- set the effect level for each Sound layer, and set which of the four effect sends each Sound layer will use for signal processing (such as reverb, delay, and chorus—or any combination of these).

MIX EDIT MODE

Mix Edit Mode lets you change the parameters of an existing Mix. Up to 16 Programs can be active in each Mix, and Mix Edit mode sets up how each will be played. Mix Edit Mode allows you to:

- set the output level, effects level, and pan of each Program in the Mix;
- select which Program's Effects Patch will be used by the Mix.

Note that you can select which Programs will be played by the different MIDI channels and by the keyboard in multiple layers or splits without entering Mix mode.

#### **EFFECTS EDIT MODE**

Effects Edit Mode is used for setting up the Digital Signal Processing effects. Each Effect Patch has 4 effect bus inputs, and an internal configuration of multiple effects such as reverb, delay, and pitch-related effects (chorus, flange, etc.). You can determine what kinds of effects are used on each bus (called a "Configuration"), change each effect's parameters (such as reverb decay time or chorus speed), set modulation routings (such as having the modulation wheel change the decay time), and set the effects mix (how much reverb, delay and chorus on the output of each effect bus).

#### **GLOBAL EDIT MODE**

Use Global Edit Mode to set various parameters which effect the entire instrument, such as overall master tuning, display contrast, MIDI controller settings, keyboard sensitivity, and how the unit will respond to or generate messages in Mix Mode.

#### STORE MODE

Store Mode is used for storing changes of Programs, Mixes and/or Effects into the User Bank or onto a QuadraCard PCMCIA memory card accessory. It is also used for transmitting the QS's parameters over MIDI for data storage purposes, copying sounds or effects from one Program to another, and for transferring entire Banks to or from a Sound Card.

#### COMPARE MODE

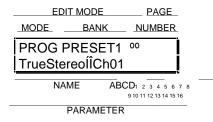
Once a Program has been edited in Program Edit Mode, or a Mix has been edited in Mix Edit Mode, the symbol "\*" will appear in the display to the left of the Mix's/Program's name while in either Mix Play Mode or Program Play Mode. If [COMPARE] is pressed while in an Edit Mode, the letters "ED:" will change to "Cm:" in the upper-left corner of the display, and you will temporarily be hearing (and seeing) the original version of the Mix/Program. If you are editing a Mix and press [COMPARE], the original unedited Mix is temporarily recalled. Likewise, if you are editing a Program or its Effects Patch and press [COMPARE], the original Program will be temporarily recalled. Pressing [COMPARE] again switches back to the edited version, and the letters "Cm:" will revert back to "ED:" in the display.

# THE USER INTERFACE: DISPLAY, FUNCTIONS, PAGES, AND PARAMETERS

The key to the QS user interface is the combination of the Display, the [ PAGE] and [PAGE ] buttons, the [s VALUE] and [VALUE t] buttons and the CONTROLLER [D] slider. The Display constantly informs you of the QS's status.

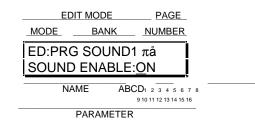
#### ABOUT THE DISPLAY

The display has two modes: Play Mode and Edit Mode. When either [MIX] or [PROGRAM] is pressed, their respective Play Mode is selected and the display will look something like this:



- **Mode.** The upper-left corner of the display will indicate whether you are in Program Play Mode (PROG) or Mix Play Mode (MIX). In the example above, Program Play Mode is selected. If the selected Program or Mix has been edited, a "\*" symbol will appear to the right of the Mode. In the example above, the Program has not been edited
- **Bank.** The upper-middle section of the display will indicate which Bank is currently selected (PRESET1 PRESET3, GenMIDI, or USER'; if a card is inserted, CARD1 CARD8). In the example above, Preset 1 Bank is selected.
- Number. The upper-right section of the display will indicate which Program or Mix number is currently selected (<sup>∞</sup> - i<sup>™</sup>¶ in Program Mode, <sup>∞</sup> - <sup>aa</sup> in Mix Mode). In the example above, Program 00 is selected.
- **Name.** The bottom-left section of the display will indicate the name of the Program or Mix which is currently selected. In the example above, TrueStereo is selected.
- Controllers A–D. In Program Play Mode and Mix Play Mode, the current positions of the Controller A–D parameters will appear between the Mix's/Program's name and the Channel(s) indicator, represented by four vertical bars. The Controllers A–D can be manipulated using the four CONTROLLER sliders: [A], [B], [C] and [D]. In some Programs and Mixes, not all four CONTROLLER sliders will be enabled. When you move a CONTROLLER slider that is enabled, you will not only hear its effect on the current Program or Mix, but will also see the display update to show its position as it changes.
- Channel (1–16). In Program Play Mode, the QS will transmit and receive on a single MIDI channel, which will be indicated in the lower-right section of the display. In Mix Play Mode, the QS can transmit and receive on up to 16 MIDI channels. The "active" channels will be indicated by the presence of a "/" symbol. When a channel is played (by either the QS's keyboard or from messages received via MIDI), a "‰" symbol will appear. In the example above, MIDI channel 1 is selected.

When [EDIT SELECT] is pressed, the display enters Edit Mode (which Edit Mode you are in depends on whether you were already in Program Mode or Mix Mode). When in an Edit Mode, the display will look something like this:



- Edit Mode. The upper-left section of the display will indicate the Edit Mode which is currently selected (ED: MIX = Mix Edit Mode, ED:PRG = Program Edit Mode, ED:GLOBAL = Global Edit Mode). The Edit Mode is selected using the [EDIT SELECT] button. In the example above, Program Edit Mode is selected.
- Editing Status. The upper-middle section of the display indicates what you are editing. This information will change depending on the Edit Mode you have selected. *Example:* If you are in Mix Edit Mode, you can choose to edit any of the 16 Channels by pressing one of the [0] [9] or [00] [50] buttons; the display will indicate the channel like this: ED:MIX CHAN 01. If you are in Program Edit Mode, you can choose which of the Program's 4 sounds you wish to edit by pressing one of the [00] [30] buttons; the display will indicate the channel like this: ED:PRG SOUND1. In the example above, Sound 1 is selected for editing.
- **Page.** In many cases when a Function is selected for editing, there will be more than one parameter associated with it. Each parameter is divided into "pages". The upper-right corner of the display will indicate the currently selected page number  $(\pi a \pi J)$ . The number of pages available depends on the Function you have selected to edit. In the example above, page 1 is currently selected.
- Parameter. The lower section will display the parameter which is currently selected and its setting. Once you have selected an Edit Mode, you may select an editing Function by pressing one of the [0] [9] or [00] [120] buttons, depending on which Edit Mode you are in. The editing Function is written in blue type above or below the number keys. For example, the [60] button accesses the LEVEL functions in Mix Edit Mode, the MOD functions in Effects Edit Mode, and the PITCH functions in Program Edit Mode. Each Function has one or more parameters in its Function Group. Once a Function is selected, the last parameter in that Function's Group will appear in the lower section of the display. You can step through all the parameter's in a Function's Group by using the [◀ PAGE] and [PAGE ➡] buttons or make coarse adjustments quickly by moving the CONTROLLER [D] slider. In the example above, the Sound Enable parameter is selected, and is turned on.

#### PAGE BUTTONS

The [ PAGE] and [PAGE ] buttons serve two purposes. In Program Play Mode and Mix Play Mode, they are used to select a MIDI channel from 1 to 16. In Program Play Mode, they are used to select the basic MIDI channel the QS will receive and transmit MIDI messages on. In Mix Play Mode, they are used to select one of the 16 possible Channels for viewing and editing. For more information on MIDI and its uses, see Chapters 8 and 9, and Appendix B.

In any of the Edit Modes when more than one display page is available, the [ PAGE] and [PAGE ] buttons are used to move forwards and backwards through these pages. The currently selected page number will appear in the upper-right corner of the display.

#### **EDITING VALUES**

Once an Edit Mode is selected and a parameter is displayed, that parameter's setting can be adjusted by either pressing the [s VALUE] and [VALUE t] buttons, or by moving the CONTROLLER [D] slider (also labeled [EDIT VALUE]). The CONTROLLER [D] slider is useful when making broad adjustments to a parameter, such as when moving a parameter from its minimum setting to its maximum, while the [s VALUE] and [VALUE t] buttons are best suited for when you wish to perform fine adjustments, such as stepping through a parameters value one at a time.

You will find that using a combination of these two controls will make editing fast and easy.

#### **RESETTING A PARAMETER VALUE**

It's often convenient while editing to return a parameter to its default setting (usually, but not always, 0). This normally involves moving the Edit Value Slider or repeatedly pressing the [s VALUE] and [VALUE t] buttons, but here's a quicker way:

- ¿ Select the parameter you wish to reset using the methods described earlier.
- i Simultaneously press both the [s VALUE] and [VALUE t] buttons.

#### PARAMETER EDITING OVERVIEW

All parameter editing involves the same general procedure, with minor variations:

- ¿ Select an Edit Mode with the [EDIT SELECT] button.
  - Example: If you pressed [PROGRAM], the [EDIT SELECT] button switches between two Edit Modes—one for editing the Program's Sound layers(Program Edit Mode), and the other for editing the Effects (Effects Edit Mode). If you pressed [MIX], the [EDIT SELECT] button switches between three Edit Modes one for editing the Mix's parameters (Mix Edit Mode), one for editing the Programs themselves (Program Edit Mode), and the last for editing the Effects (Effects Edit Mode).
- i Select a **function** (level, pitch, etc.). by pressing one of the [0] [9] or [00] [120] buttons, depending on which Edit Mode you are in.
- ¬ If a function has multiple pages, use the [ ■ PAGE] and [PAGE ■] buttons to select the appropriate page.

The upper-right section of the display will indicate the currently selected page number. Each page provides a different parameter. The parameter's name will appear in the bottom section of the display. Press the [PAGE] button to select the next higher-numbered page, and [III PAGE] to select the next lower-numbered page. Press both [III PAGE] and [PAGE] is simultaneously to get back to the first page of the selected function.

 $\sqrt{}$  Change the parameter value.

You can edit the value either by moving the [CONTROLLER D] slider (for large value changes) or pressing the [s VALUE] and [VALUE t] buttons (for smaller changes).

#### SELECTING FUNCTIONS AND PARAMETERS

When editing a Mix, a Program or a Program's Effects, the 23 buttons located on the right side of the front panel provide direct selection of edit Functions, the 4 Sounds within a Program (in Program Edit Mode) and the 16 Channels within a Mix (in Mix Edit Mode). This means you can quickly get to the Function/Sound/Channel you want to edit. The Functions available for direct selection are printed on the front panel adjacent to each button. Many Functions provide more than one parameter, and so have multiple pages available. Use the [ PAGE] and [PAGE ] buttons to move forwards and backwards through the available pages. The number of available pages will change depending on which Function you have selected. The Direct Select Functions are shown in the table below.

Button	Program Edit (Sound)	Program Edit (Drum)	Mix Edit	Effects Edit
0	MOD 1	DRUM 1	SELECT CHANNEL 1	
1	MOD 2	DRUM 2	SELECT CHANNEL 2	
2	MOD 3	DRUM 3	SELECT CHANNEL 3	
3	MOD 4	DRUM 4	SELECT CHANNEL 4	
4	MOD 5	DRUM 5	SELECT CHANNEL 5	
5	MOD 6	DRUM 6	SELECT CHANNEL 6	
6	PITCH LFO	DRUM 7	SELECT CHANNEL 7	
7	FILTER LFO	DRUM 8	SELECT CHANNEL 8	
8	AMP LFO	DRUM 9	SELECT CHANNEL 9	
9	TRACKING GENERATOR	DRUM 10	SELECT CHANNEL 10	
00	SELECT SOUND	SELECT SOUND 1	SELECT CHANNEL 11	SELECT SEND 1
10	SELECT SOUND 2	SELECT SOUND 2	SELECT CHANNEL 12	SELECT SEND 2
20	SELECT SOUND 3	SELECT SOUND 3	SELECT CHANNEL 13	SELECT SEND 3

		1		
30	SELECT SOUND	SELECT SOUND	SELECT	SELECT SEND
	4	4	CHANNEL 14	4
40	VOICE	VOICE	SELECT	CONFIGURATIO
			CHANNEL 15	N
50	LEVEL	LEVEL	SELECT	EQ
			CHANNEL 16	
60	PITCH	PITCH	LEVEL	MOD
70	FILTER	FILTER	PITCH	LEZLIE
80	AMP/RANGE	AMP/RANGE	EFFECT	PITCH
90	PITCH		KEYBOARD/MID	DELAY
	ENVELOPE		I	
100	FILTER		CONTROLLERS	REVERB
	ENVELOPE			
110	AMP ENVELOPE	DECAY	RANGE	OVERDRIVE
120	NAME	NAME	NAME	MIX

# COMPARING EDITED AND STORED VERSIONS

When you edit a Program or Mix, you are actually editing a copy which is in a temporary edit buffer. Therefore, to retain the results of your edit, you must save it to a particular memory location (see the next section on Storing). If you change memory locations before saving, the buffer will be replaced and your edits lost.

Because the original Program/Mix remains undisturbed, you can compare the edited version to the original by using the Compare function. You can only select Compare mode when either Mix Edit, Program Edit or Effects Edit is selected, <u>and</u> the "\*" symbol appears in the display next to the Mix/Program's name whil in either Mix Play Mode or Program Play Mode.

Indicates Program or Mix has been edited

Ø	
PROG*PRESET1 00	
GrandPianolîCh01	

¿ While in an Edit Mode (the letters "ED:" should appear in the upper-left section of the display), press [COMPARE]. The letters "ED:" in the display will change into "Cm:".

Indicates Compare Mode is selected

Ø	
Cm:PRG SOUND1 πå	
SOUND ENABLE: <u>O</u> N	

 Press [COMPARE] again to exit Compare mode and return to the edited version. The letters "Cm:" will revert back to "ED:". Pressing [MIX], [PROGRAM], [GLOBAL], or [STORE] will also exit Compare mode. However, to return to Compare mode after pressing one of these buttons, you must first press [EDIT] and then press [COMPARE].

J

While Compare mode is selected, you can move around to view the various functions and parameters, but you will not be able to edit anything. This is because you are seeing what is in memory, not what is in the edit buffer.

# PRESET MEMORY AND USER MEMORY

The QS has three types of memory banks for Mixes and Programs: Preset, User and Card. The Preset banks, of which there are four, are stored in ROM (Read Only Memory), and therefore cannot be altered. However, the User bank, of which there is 1, is stored in RAM (Random Access Memory). Card banks can be either ROM or RAM. Anytime you want to keep an edited version of a Mix or Program, you will store it into the User bank or onto a RAM Card. If you want to permanently change a Mix or Program that is in the Preset bank, you can store the edited version into the User bank (in either the same number location or a different number location). However, this requires that you "store over" an existing Program or Mix, losing whatever was previously in that location. If you don't want to lose any of the sounds in the User bank, you should back-up the entire bank to either an external SRAM or FlashRAM PCMCIA card, or (via MIDI System Exclusive) into a data storage device or a MIDI sequencer. See Chapter 9 for more information on external storage operations.

# STORING

The [STORE] button selects Store mode. Store mode has 7 pages which you can scroll through by using the [ I PAGE] and [PAGE ] buttons. Each page in Store mode provides a different type of storage, copy or data transfer function. When storing edited Mixes or Programs into the User Bank or a RAM Card Bank, you will use the first page of Store mode (for more information about the other pages of Store mode, see Chapter 9). If you press [STORE], the display will look something like this:

SavePrg? (STORE)	
to USER 127	

Each edit mode type requires its own store operation. For example, if while making a new Mix you also make changes within one of the Programs (such as lowering the filter level), you must use the Store command separately (from Mix Edit, and Program Edit or Effect Edit) in order to save your work. *Note:* When using the Store command from Effect Edit Mode, the associated Program is stored. This is because Effects are stored within their respective Programs.

If you select a different Mix while in Mix Edit mode, or a different Program in Program Edit mode, you will lose all changes you have made, unless you perform a store first.

You can only store Mixes and Programs into their respective User banks. The Preset banks are permanently stored in ROM and cannot be saved over.

#### STORE A PROGRAM OR MIX

- *¿* While in either Program Mode or Mix mode, after making your edits press the [STORE] button.
- i Optional: Select the memory Bank in which you want to store the Program or Mix into using the [s VALUE] and [VALUE t] buttons. If no RAM Card is inserted, you will only be able to select the User Bank.
- ¬ Use the [0] − [9] and [00] − [120] to select the Program/Mix location (00 − 127) in which you want to store the Program or Mix into.
- Press [STORE] again to complete the operation.
  Or, Press any other button to cancel out of the Store operation without storing.
- Storing a Mix only stores the Mix parameters, not the individual Programs or Effect Patch used in the Mix. If you have edited any of the Programs in the Mix or the Effects Patch, you must store them separately.

#### **COPYING SOUNDS BETWEEN PROGRAMS**

Follow the steps below to copy one of the four Sound layers from one Program to another Program in the User Bank. When copying Sounds between Programs, the "new" Sound will replace the same numbered Sound in the destination Program, i.e., Sound 3 will replace Sound 3.

- ¿ Press [PROGRAM] to select Program Play Mode, then use the [s VALUE] and [VALUE t] buttons to select the Program Number that uses the Sound you want to copy. If necessary, use the [◀ BANK] and [BANK ►] buttons to select a different Bank.
- j Press [STORE].
- Press [PAGE ] once to advance to Page 2.
  The upper section of the display will read "COPY SOUND 1".
- $\sqrt{}$  Use the [s VALUE] and [t VALUE] buttons to select which Sound (1–4) you wish to copy from the currently select Program.
- *f* Press [PAGE ] once to advance the cursor to the Program number value in the lower section of the display.
- ≈ Use the [s VALUE] and [VALUE t] buttons or move the CONTROLLER [D] slider to select the Program Number in the User Bank you wish to copy the Sound to (000–127). Or, you may copy into any of the four Sounds of the source Program (Sound 1-4).
- $\Delta$  Press [STORE] to complete the copy function.

#### **COPYING EFFECTS BETWEEN PROGRAMS**

Follow the steps below to copy the Effects from one Program to another Program in the User Bank.

- ¿ Press [PROGRAM] to select Program Play Mode, then use the [s VALUE] and [VALUE t] buttons to select the Program Number that uses the Effects you want to copy. If necessary, use the [ BANK] and [BANK ] buttons to select a different Bank.
- j Press [STORE].
- Press [PAGE ] once to advance to Page 2.
  The upper section of the display will read "COPY SOUND 1".
- $\sqrt{10}$  Press the [s VALUE] button four times until the display reads "COPY <u>EFFECT</u>". This selects the Effects of the currently selected Program as the source of what is to be copied.
- *f* Press [PAGE ] once to advance the cursor to the Program number value in the lower section of the display.
- ≈ Use the [s VALUE] and [VALUE t] buttons or move the CONTROLLER [D] slider to select the Program Number in the User Bank you wish to copy the Effects to (000–127).
- $\Delta$   $\,$  Press [STORE] to complete the copy function.

#### TO AUDITION PROGRAMS BEFORE STORING

To look for available memory locations to permanently store your Program into, you can move between Program Mode and Mix Mode without losing your changes. This is because Program Mode uses a Program edit buffer, and Mix Mode uses its own Mix edit buffer along with 16 additional Program edit buffers. These buffers are retained when moving between Program Mode and Mix Mode, making it easy to search for a suitable location to store your newly created Program. *Example:* While in Program Edit mode, go to Mix Mode and scroll through the Program list on one of the Channels; while editing a Program from Mix Mode, go to Program Mode to scroll through the Program list.

The way to tell the difference between a program edited in Program Mode and one edited from Mix Mode is by looking at the display: in Program Edit Mode, "ED:PRG" appears in the display, while in Mix Edit Mode, "ED:MIX" appears.

You will lose your changes if you remain in the same mode and recall a different Mix/Program by pressing the [0] – [9] or [00] – [120] buttons.

To audition Programs before overwriting them with STORE ...when editing a Program in Program Mode:

- *While in Program Edit mode, press [MIX]. This selects Mix Play Mode, retaining your edits to the Program in an edit buffer.*
- i Use the [ BANK] and [BANK ] buttons select Preset Bank 1; then press [90] and [9] to select Mix 99.
- ¬ Press both [◀ PAGE] and [PAGE ➡] buttons simultaneously to select Channel
  1.
- $\sqrt{}$  Use the [ **BANK**] and [BANK **b**] buttons select the User Bank.
- f Use the [0] [9] and [00] [120] buttons to go through the Programs in the User Bank until you find one you wish to overwrite with the new edited Program. Take a note of the number.
- ≈ Press [PROGRAM] to enter Program Play Mode. This recalls the edit buffer in Program Mode, which is your edited Program.
- $\Delta$  Press [STORE]. The upper section of the display will read "SavePrg? (STORE) to USERxxx" where XXX is a User Program number from 000 – 127.
- « Press [PAGE ] to advance the cursor to the Program Number field in the display.
- » Use the [s VALUE] and [VALUE t] buttons or move the CONTROLLER [D] slider to select the Program Number you noted in step 5.
- ... Press [STORE] again. The Program is now stored.

- <u>To audition Programs before overwriting them with STORE</u> ...when editing a Program in Mix Play Mode:
- *i* While in Mix Program Edit mode, press [PROGRAM]. *This selects Program Play Mode, retaining your edits to the Program in Mix Edit.*
- i Use the [ BANK] and [BANK ] buttons to select the User Bank. If a RAM card is inserted, use the [ BANK] and [BANK ] buttons to select a Card Bank.
- Use the [s VALUE] and [VALUE t] buttons or move the CONTROLLER [D] slider to scroll through the Programs until you find one you wish to overwrite with the new edited Program. Take note of the number.
- $\sqrt{}$  Press [MIX]. This recalls the edit buffer in Mix Mode, which contains your edited Program.
- *f* Press [EDIT SELECT] twice, until "EDITING: PROGRAM" appears under the MIX number in the display.
- ≈ Press [STORE]. The top line of the display will read "SavePrg? (STORE) to USERxxx" where XXX is a User Program number from 000—127.
- $\Delta$  Optional: If the location you noted was on a RAM card, use [BANK ] to select the Card Bank.
- « Press [PAGE ] to advance the cursor to the Program Number field in the display.
- » Use the [s VALUE] and [VALUE t] buttons or move the CONTROLLER [D] slider to select the Program Number you noted in step 5.
- « Press [STORE] again. The Program is now stored.

At this point your edited Program is stored, however the Mix your were auditioning before storing the Program still has the old Program number assigned (if the edited Program was saved to a different Program number location). Therefore, you need to store the Mix as well.

- » Press [MIX]. This selects Mix Play Mode.
- ... Press [STORE] twice. The Mix is now stored.