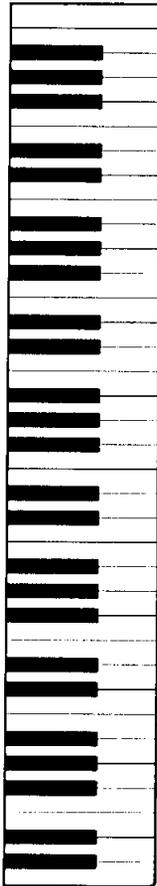# DRUM EDIT MODE

Contents

Drum Voice Configuration

The drum voices — P63 and P64 — are composed of 61 elements each, corresponding to keys from C1 to C6 on the master keyboard or other MIDI controller. A different drum sound or other wave can thus be assigned to each key on the keyboard (i.e. to each drum element), making it possible to create different "drum set" configurations according to your musical requirements.

Keys C1 through C6 are initially programmed with the following voices for P63 and P64:

● Voice 63: Drum Set 1

Key	Wave Name	No.	Key	Wave Name	No.
			C6	Syn Bass	P28
			B5	Syn Bass	P28
A#5	Syn Bass	P28	A5	Syn Bass	P28
G#5	Syn Bass	P28	G5	Syn Bass	P28
F#5	Syn Bass	P28	F5	Syn Bass	P28
			E5	Syn Bass	P28
D#5	Syn Bass	P28	D5	Syn Bass	P28
C#5	Syn Bass	P28	C5	Syn Bass	P28
			B4	Bulb	P57
A#4	Vocal Ga	P53	A4	Vocal Ga	P53
G#4	Bell Mix	P58	G4	Bottle	P51
F#4	Bottle	P51	F4	Bottle	P51
			E4	Styroll	P56
D#4	Shaker	P74	D4	Ride	P71
C#4	Bamboo	P54	C4	Vibe Np	P50
			B3	Vibe Np	P50
A#3	Claps	P72	A3	Claps	P72
G#3	Popping	P26	G3	Popping	P26
F#3	Tube	P52	F3	Tube	P52
			E3	Tube	P52
D#3	Ride	P71	D3	Ride	P71
C#3	Crash	P70	C3	Crash	P70
			B2	HH open	P69
A#2	Crash	P70	A2	HH closed	P68
G#2	Shaker	P74	G2	Cowbell	P73
F#2	Claps	P72	F2	Tom 1	P66
			E2	SD 1	P62
D#2	Rim	P65	D2	Tom 1	P66
C#2	SD 2	P63	C2	Tom 1	P66
			B1	Tom 1	P66
A#1	SD 3	P64	A1	BD 1	P59
G#1	BD 2	P60	G1	Tom 2	P67
F#1	Tom 2	P67	F1	Tom 2	P67
			E1	Tom 2	P67
D#1	BD 3	P61	D1	BD 3	P61
C#1	BD 2	P60	C1	BD 2	P60

● Voice 64: Drum Set 2

Key	Wave Name	No.	Key	Wave Name	No.
			C6	Syn Bass	P28
			B5	Syn Bass	P28
A#5	Syn Bass	P28	A5	Syn Bass	P28
G#5	Syn Bass	P28	G5	Syn Bass	P28
F#5	Syn Bass	P28	F5	Syn Bass	P28
			E5	Syn Bass	P28
D#5	Syn Bass	P28	D5	Syn Bass	P28
C#5	Syn Bass	P28	C5	Syn Bass	P28
			B4	Bulb	P57
A#4	Vocal Ga	P53	A4	Vocal Ga	P53
G#4	Bell Mix	P58	G4	Bottle	P51
F#4	Bottle	P51	F4	Bottle	P51
			E4	Styroll	P56
D#4	Shaker	P74	D4	Ride	P71
C#4	Bamboo	P54	C4	Vibe Np	P50
			B3	Vibe Np	P50
A#3	Claps	P72	A3	Claps	P72
G#3	Popping	P26	G3	Popping	P26
F#3	Tube	P52	F3	Tube	P52
			E3	Tube	P52
D#3	Ride	P71	D3	Ride	P71
C#3	Crash	P70	C3	Crash	P70
			B2	HH open	P69
A#2	Crash	P70	A2	HH closed	P68
G#2	Shaker	P74	G2	Cowbell	P73
F#2	Claps	P72	F2	Tom 2	P67
			E2	SD 2	P63
D#2	Rim	P65	D2	Tom 2	P67
C#2	SD 1	P62	C2	Tom 2	P67
			B1	Tom 2	P67
A#1	SD 3	P64	A1	BD 2	P60
G#1	BD 1	P59	G1	Tom 1	P66
F#1	Tom 1	P66	F1	Tom 1	P66
			E1	Tom 1	P66
D#1	BD 3	P61	D1	BD 3	P61
C#1	BD 1	P59	C1	BD 1	P59

## Selecting the Drum Edit Mode & Jobs/Edit Compare

The drum edit mode and its various jobs are selected in exactly the same was as in the voice edit mode — the only difference being that a drum voice must be selected before the edit mode is engaged. See "Selecting the Voice Edit Mode", and "Selecting the Various Voice Edit Mode Jobs" on page 52. The Edit/Compare function also works with the drum edit mode — see "Edit Compare Operation" on page 54.
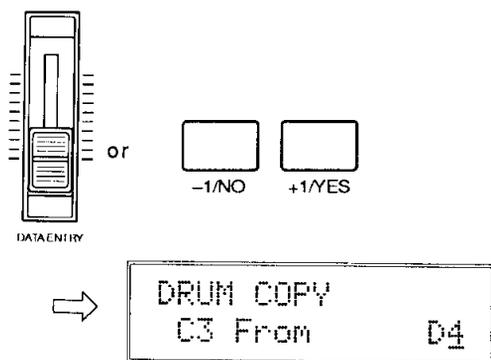
The Drum Copy Function

The Drum Copy function makes it possible to copy the parameter assignments from any other drum element to the drum element currently being edited. This is useful if, for example, you want to create a set of pitched tom-toms. You can copy a single tom-tom sound to as many drum elements as necessary — complete with all necessary parameter settings — and then simply change the pitch of each using the TUNE function.

1. Make sure the drum edit mode is engaged and that any function other than one of the EFFECT functions, DRUM NAME, DRUM RECALL, or DRUM INITIALIZE is selected.

2. Select the drum element to which the new parameter data will be copied by pressing the appropriate key on the master keyboard.

3. Press the [STORE/COPY] key. The following display will appear.

COPY [STORE] ⇒ DRUM COPY / C3 From   C3
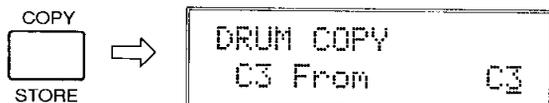
4. Next, select the drum element from which the parameter data is to be copied by pressing the appropriate key on the master keyboard, by using the [DATA ENTRY] control, or using the [+1/YES] and [−1/NO] keys. The name of the selected drum element will appear to the right of the bottom LCD line.

DATA ENTRY or −1/NO +1/YES

⇒ DRUM COPY / C3 From   D4

5. When the drum element to and from which the data is to be copied have been properly selected, press the [ENTER] key. "Sure?" will appear on the top line of the LCD.

[ENTER] ⇒ DRUM COPY   Sure? / C3 From   D4
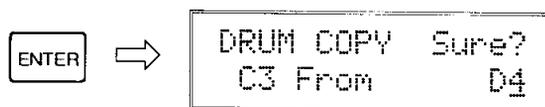
6. Press the [+1/YES] key to confirm and actually execute the copy operation, or [−1/NO] to cancel. "Completed!" will appear for a few seconds when the copy operation has been successfully completed.

[+1/YES] ⇒ Completed!
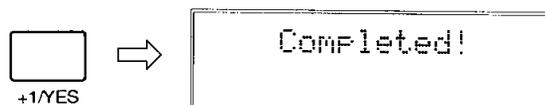
7. When the copy operation has finished, the SY55 will return automatically to the display that was showing immediately prior to activation of the drum copy function.
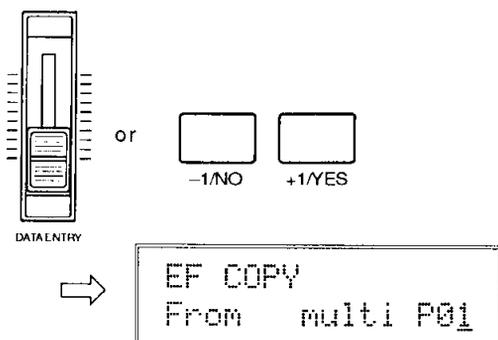
The Effect Copy Function

The Effect Copy function makes it possible to copy the effect parameter assignments from any other voice or multi-timbral setup to the drum voice currently being edited.

1. Make sure the drum edit mode is engaged and that one of the EFFECT functions is selected.

2. Press the [STORE/COPY] key. The following display will appear.


```
EF COPY
From    voice P63
```
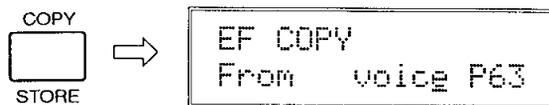
3. Use the [◁] and [▷] cursor keys to move to the Multi/Voice parameter and select "multi" if you want to copy effect parameters from a multi-timbral setup, or "voice" if you want to copy the effect parameters from a preset or internal voice.

4. Next, the cursor to the multi or voice number parameter by pressing the [▷] key, and select the multi-timbral setup or voice from which the parameter data is to be copied by using the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys. The [INTERNAL], [CARD],or [PRESET] key can be used to select the "P" (preset) or "I" (internal) voice bank if necessary — or, if a properly formatted memory card is inserted in the DATA card slot, the "C" or " " card bank.


```
EF COPY
From    multi P01
```

5. Press the [ENTER] key. "Sure?" will appear on the top line of the LCD.


```
EF COPY    Sure?
From    multi P01
```

6. Press the [+1/YES] key to confirm and actually execute the copy operation, or [–1/NO] to cancel. "Executing!" will appear briefly on the display while the data is being copied, then "Completed!" will appear for a few seconds when the copy operation has been successfully completed.


```
Executing!
```

```
Completed!
```
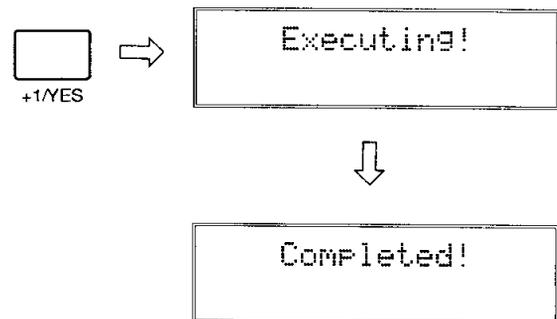
7. When the copy operation has finished, the SY55 will return automatically to the display that was showing immediately prior to activation of the effect copy function.

JOBS & PARAMETERS

AWM WAVE SELECTION

```
DRUM Wave Assign
C3:Crash    =P70
```

Summary: Assigns a preset or cartridge wave to each key (drum element) between C1 and C6.

Settings:
off, P01 ... P58 (preset voices)
P59 ... P74 (preset drums)
off, C01 ... max. C99 (cartridge voices)

Procedure: Select the drum element to which the new wave will be assigned (C1 ... C6) by pressing the appropriate key on the keyboard.

It is also possible to select the drum element to be edited by moving the cursor to the key name position by pressing the [◁] key and then using the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys.

Once the desired drum element has been selected, move the cursor to the wave name position (if it is not already there) by pressing the [▷] cursor key, then use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to assign the desired wave to the selected drum element.

The [PRESET] or [CARD] key can be used to select the "P" (PRESET) or "C" (CARD) memory bank.

Details: Note that in addition to drum sounds any other waves may be assigned to the drum elements. This makes it possible to include other non-drum waves in your original drum sets.

Drum elements can also be turned "off" (unassigned). The "off" setting can be selected by decrementing below the lowest-numbered wave.

Refer to: Tutorial, page 18, 35.

VOLUME

```
DRUM Volume   127
C3:Crash    =127
```

Summary: Allows the volume of individual drum elements to be adjusted, as well as the overall volume of the current drum voice.

Settings: 0 ... 127

Procedure: Select the drum element to be edited (C1 ... C6) by pressing the appropriate key on the keyboard.

It is also possible to select the drum element to be edited by moving the cursor to the key name position by pressing the [◁] key and then using the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys.

Once the desired drum element has been selected, use the [◁] and [▷] cursor keys to move

the cursor to the volume parameter on the bottom line of the LCD to adjust individual volume, or the volume parameter on the upper line of the LCD to adjust overall volume.

Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to set the desired volume level.

Details: A setting of "0" produces no sound while a setting of "127" produces maximum volume.

The ability to independently adjust the volume of each drum element makes it simple to set up the optimum balance or "mix" between instruments in the drum set. Overall volume adjustment can be used to match the the overall level of different voices.

NOTE SHIFT | JOB 3

```
DRUM Note Shift
   C3:Crash    = +4
```

Summary: Individually shifts the pitch of each drum element up or down in semitone steps.

Settings: −48 ... +36

Procedure: Select the drum element to be edited (C1 ... C6) by pressing the appropriate key on the keyboard.

It is also possible to select the drum element to be edited by moving the cursor to the key name position by pressing the [◁] key and then using the [DATA ENTRY] control or [+1/YES] and [−1/NO] keys.

Once the desired drum element has been selected, use the [◁] and [▷] cursor keys to move the cursor to the note shift parameter.

Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to set the desired degree of note shift.

Details: A setting of "−12," for example, shifts the pitch of the selected drum element down by one octave; a setting of "+4" shifts the pitch up by a major third.

In a drum voice, the note shift function can be used to create pitched sets of tom-toms or other instruments.

TUNE | JOB 4

```
DRUM Tune
   C3:Crash    = +0
```

Summary: Allows each individual drum element to be tuned over approximately a 150-cent range.

Settings: −64 ... +63

Procedure: Select the drum element to be edited (C1 ... C6) by pressing the appropriate key on the keyboard.

It is also possible to select the drum element to be edited by moving the cursor to the key name position by pressing the [◁] key and then using the [DATA ENTRY] control or [+1/YES] and [−1/NO] keys.

Once the desired drum element has been selected, use the [◁] and [▷] cursor keys to move the cursor to the tuning parameter.

Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to set the desired tuning value.

Details: Each tuning increment corresponds to a 75/64-cent change in pitch. The entire tuning range is therefore 75/64 x 127 (i.e. 64 + 63 increments) — almost 150 cents. Since 100 cents equals one semitone, the tuning range is approximately one and a half semitones. A setting of "0" produces normal pitch.

DRUM EDIT MODE

97

```
DRUM Alt. Group
  C3:Crash    =off
```

Summary: Specifies drum elements which may not sound at the same time.

Settings: On, Off

Procedure: Select the drum element to be edited (C1 ... C6) by pressing the appropriate key on the keyboard.

It is also possible to select the drum element to be edited by moving the cursor to the key name position by pressing the [◁] key and then using the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys.

Once the desired drum element has been selected, use the [◁] and [▷] cursor keys to move the cursor to the alternate group parameter.

Use the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys to turn alternate grouping "on" or "off."

Details: In a real drum set, you would never hear the sound of a closed hi-hat at the same time as the open hi-hat. If you turn alternate group "on" for both of these instruments (which are really different sounds produced by the same instrument), the closed and open hi-hat elements will not sound together even if their keys are played at the same time.

This also means that you can play the open hi-hat, then "close" the hi-hat before the open hi-hat sound ends by playing the closed hi-hat key.

```
DRUM Pan L.....|..,.....R
  C3:Crash    =-15
```

Summary: Determines the position in the stereo sound field in which the sound from each drum element will be heard (left to right).

Settings: -31 ... +31

Procedure: Select the drum element to be edited (C1 ... C6) by pressing the appropriate key on the keyboard.

It is also possible to select the drum element to be edited by moving the cursor to the key name position by pressing the [◁] key and then using the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys.

Once the desired drum element has been selected, use the [◁] and [▷] cursor keys to move the cursor to the pan parameter.

Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to set the desired pan value.

The upper line of the display also shows a graphic representation of the stereo sound field with "L" representing "left" and "R" representing "right." As you change the pan value the vertical bar will appear at the corresponding position on the graphic display.

Details: Minus values represent panning to the left, and positive values represent panning to the right. "0" positions the sound of the selected drum element in the center of the stereo sound field.

Refer to: "THE CONTROLS AND CONNECTORS," page 7.

EFFECT BALANCE

```
DRUM EF Balance
  C3:Crash   = 10
```

Summary: Determines the balance between the direct and effect sound for each drum element.

Settings: 0 ... 100

Procedure: Select the drum element to be edited (C1 ... C6) by pressing the appropriate key on the keyboard.

It is also possible to select the drum element to be edited by moving the cursor to the key name position by pressing the [◁] key and then using the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys.

Once the desired drum element has been selected, use the [◁] and [▷] cursor keys to move the cursor to the effect balance parameter.

Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to set the desired effect balance value.

Details: A setting of "0" produces only the direct sound of the selected drum element, while a setting of "100" produces only the effect sound. A setting of "50" delivers both the direct and effect sound in approximately equal proportions.

The effect (reverb, delay, etc.) applied to the voice is selected and edited using the EFFECT functions described on page 86.

Refer to: "EFFECT: TYPE/OUTPUT LEVEL" on page 85. "EFFECT: EFFECT PARAMETERS" on page 86.

VOLUME CONTROL

```
DRUM Volume :---
CTL#=  0 MIN=  0
```

Summary: Assigns a controller to, and sets the range of volume control for the current drum voice.

Settings:
CTL# (Control Number) Parameter: 0 ... 120, AT
MIN (Minimum Volume) Parameter: 0 ... 127

Procedure: Use the [◁] and [▷] keys to select the "CTL#" or "MIN" parameter, then use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to set the selected parameter as required.

Details: The "CTL#" parameter corresponds to MIDI control numbers. Standard controller assignments are noted in the upper right-hand corner of the display:

Set the CTL# parameter to the number of the controller with which you intend to control this function.

The MIN parameter can be set to a value between 0 and 127: A setting of "0" allows volume control over the full 0 ... 127 range, while a setting of "100," for example, allows volume control over only a small portion of the total range — 100 ... 127.

Please note that different controllers may be assigned to the normal and drum voices, so that they can be controlled independently.

● **Type**

```
EF\Type
  1:Rev.Hall 100%
```

Summary: Selects one of 34 digital effects for the current drum voice.

Settings and operation are exactly the same as in the voice edit mode: refer to "EFFECT: TYPE/OUTPUT LEVEL" on page 85.

● **Output Level**

```
EF\Output Level
  1:Rev.Hall 100%
```

Summary: Sets the level of the selected drum voice effect in relation to the direct (no effect) sound.

Settings and operation are exactly the same as in the voice edit mode: refer to "EFFECT: TYPE/OUTPUT LEVEL" on page 85.

```
EF\Time     :sec
  2.6  8.0    29
```

Summary: Accesses the individual programmable parameters for the selected drum voice effect.

Settings and operation are exactly the same as in the voice edit mode: refer to "EFFECT: EFFECT PARAMETERS" on page 86.

DRUM SET VOICE NAME   JOB 11

```
DRUM Name
        "Drum Set 1"
```

Summary: Assigns a name of up to 10 characters to the current drum voice.

Settings: The following characters are available for use in voice names:

```
[Space] ! "#$%&' ()*+,-./0123456789:;<=>?@
ABCDEFGHIJKLMNOPQRSTUVWXYZ[ ]^_`
abcdefghijklmnopqrstuvwxyz{|}→←
```

Procedure: Use the [◁] and [▷] cursor keys to place the underline cursor under the character to be changed. Use the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys to select the desired character. Continue until the entire drum voice name has been programmed.

Details: It's a good ideas to give your voices names that make the voice easily identifiable. If you've created a new drum voice designed specifically for a jazzy sound, for example, you could call it something like "Jazz Set".

DRUM SET VOICE RECALL   JOB 12

```
DRUM Edit
          Recall
```

Summary: Recalls the last drum voice edited from the SY55 edit buffer.

Settings: None

Procedure: After selecting the "DRUM Edit Recall" display, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to initialize or [-1/NO] to cancel the initialize operation.

"Completed!" will appear briefly when the recall operation is finished.

Details: Even if you've exited the drum edit mode and called a different voice, this function will recall the last drum-set voice edited with all parameters as they were at the time the drum edit mode was exited.

Please note, however, that a compare operation overwrites the recall buffer with the contents of the edit buffer at that time. A recall operation following a compare operation will therefore recall the contents of the edit buffer at the time of the compare operation.

```
DRUM
          Initialize
```

Summary: Initializes all parameters of the current drum voice.

Settings: None.

Procedure: After selecting the "DRUM Initialize" display, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to initialize or [–1/NO] to cancel the initialize operation.

"Completed!" will appear briefly when the initialization is finished.

Details: When Drum Initialize is executed, the drum voice parameters are initialized to the following values:

The drum voice initialize function is useful if you want to begin programming a new drum set voice "from scratch."

● INIT DRUM

Key	Wave Name	No.
A#5	Syn Bass	P28
G#5	Syn Bass	P28
F#5	Syn Bass	P28
D#5	Syn Bass	P28
C#5	Syn Bass	P28
A#4	Vocal Ga	P53
G#4	Bell Mix	P58
F#4	Bottle	P51
D#4	Shaker	P74
C#4	Bamboo	P54
A#3	Claps	P72
G#3	Popping	P26
F#3	Tube	P52
D#3	Ride	P71
C#3	Crash	P70
A#2	Crash	P70
G#2	Shaker	P74
F#2	Claps	P72
D#2	Rim	P65
C#2	SD 2	P63
A#1	SD 3	P64
G#1	BD 2	P60
F#1	Tom 2	P67
D#1	BD 3	P61
C#1	BD 2	P60

Key	Wave Name	No.
C6	Syn Bass	P28
B5	Syn Bass	P28
A5	Syn Bass	P28
G5	Syn Bass	P28
F5	Syn Bass	P28
E5	Syn Bass	P28
D5	Syn Bass	P28
C5	Syn Bass	P28
B4	Bulb	P57
A4	Vocal Ga	P53
G4	Bottle	P51
F4	Bottle	P51
E4	Styroll	P56
D4	Ride	P71
C4	Vibe Np	P50
B3	Vibe Np	P50
A3	Claps	P72
G3	Popping	P26
F3	Tube	P52
E3	Tube	P52
D3	Ride	P71
C3	Crash	P70
B2	HH open	P69
A2	HH closed	P68
G2	Cowbell	P73
F2	Tom 1	P66
E2	SD 1	P62
D2	Tom 1	P66
C2	Tom 1	P66
B1	Tom 1	P66
A1	BD 1	P59
G1	Tom 2	P67
F1	Tom 2	P67
E1	Tom 2	P67
D1	BD 3	P61
C1	BD 2	P60

MULTI EDIT MODE

Contents

GENERAL OPERATION

Multi Mode Configuration

In the multi edit mode 16 different voices can be assigned to the 16 MIDI channels. The assigned voices can then be individually controlled over the appropriate channels from an external MIDI sequence recorder or other controller.

Since the SY55 can produce a maximum of 16 notes at the same time (16-note polyphony), the number of simultaneous notes that each voice can produce depends on the number of voices being played at the time. If 16 single-element voices are played at once, for example, each can only produce a single note. On the other hand, if only one voice is being played the SY55's "Dynamic Note Allocation" feature allows 16 notes to be played simultaneously by that one voice even if 16 voices are assigned.

The SY55 also has a RESERVED NOTE function that allows you to specify a minimum number of notes for each voice.

Selecting the Multi Edit Mode & Jobs/Edit Compare

The multi edit mode and its various jobs are selected in exactly the same was as in the voice edit mode — the only difference being that the MULTI play mode must be selected by pressing the [MULTI] key before the edit mode is engaged. See "Selecting the Voice Edit Mode", and "Selecting the Various Voice Edit Mode Jobs" on page 52. The Edit/Compare function also works with the multi edit mode — see "Edit Compare Operation" on page 54.
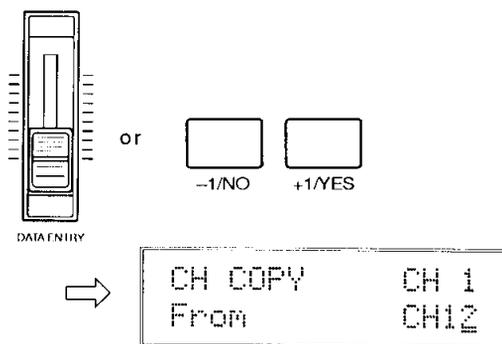
The Channel Copy Function

The Channel Copy function makes it possible to copy the parameter assignments from any other multi-play channel to the channel currently being edited.

1. Make sure the multi edit mode is engaged and that any function other than one of the EFFECT functions, MULTI NAME, MULTI RECALL, or MULTI INITIALIZE is selected.

2. Select the channel to which the new parameter data will be copied by using the [◁] and [▷] cursor keys. The selected channel number is shown at the right end of the upper line of the LCD (CH1 ... CH16).

3. Press the [STORE/COPY] key. The following display will appear.

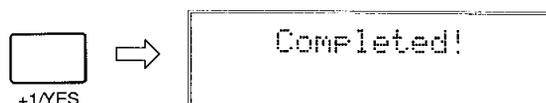COPY
⟹
```
CH COPY    CH 1
From       CH 1
```
STORE
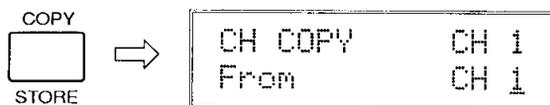
Next, select the channel from which the parameter data is to be copied by using the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys. The number of the selected channel will appear to the right of the bottom LCD line.

DATA ENTRY or [-1/NO] [+1/YES]

⟹
```
CH COPY    CH 1
From       CH12
```

4. When the channels to and from which the data is to be copied have been properly selected, press the [ENTER] key. "Sure?" will appear on the top line of the LCD.

[ENTER] ⟹
```
CH COPY    Sure?
From       CH12
```
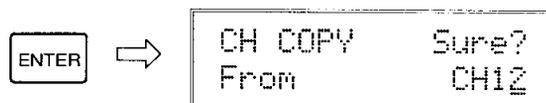
5. Press the [+1/YES] key to confirm and actually execute the copy operation, or [-1/NO] to cancel. "Completed!" will appear for a few seconds when the copy operation has been successfully completed.

[+1/YES] ⟹
```
Completed!
```

6. When the copy operation has finished, the SY55 will return automatically to the display that was showing immediately prior to activation of the channel copy function.
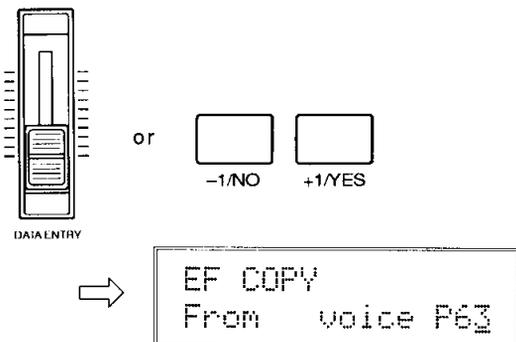
The Effect Copy Function

The Effect Copy function makes it possible to copy the effect parameter assignments from any other voice or multi-play setup to the multi-play setup currently being edited.

1. Make sure the multi edit mode is engaged and that one of the EFFECT functions is selected.

2. Press the [STORE/COPY] key. The following display will appear.


```
EF COPY
From    multi P01
```

3. Use the [◁] and [▷] cursor keys to move to the multi/voice parameter and select "multi" if you want to copy the effect parameters from another multi-play setup, or "voice" if you want to copy the effect parameters from a preset or internal voice.

4. Next, move the cursor to the multi or voice number parameter by pressing the [▷] key, and select the multi-play setup or voice from which the parameter data is to be copied by using the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys. The [INTER-NAL], [CARD] or [PRESET] key can be used to select the "P" (preset) or "I" voice bank if necessary — or, if a properly formatted memory card is inserted in the DATA card slot, the "C" or " " card bank.


```
EF COPY
From    voice P63
```

5. Press the [ENTER] key. "Sure?" will appear on the top line of the LCD.


```
EF COPY    Sure?
From    voice P63
```

6. Press the [+1/YES] key to confirm and actually execute the copy operation, or [-1/NO] to cancel. "Completed!" will appear for a few seconds when the copy operation has been successfully completed.


```
Completed!
```

7. When the copy operation has finished, the SY55 will return automatically to the display that was showing immediately prior to activation of the effect copy function.

JOBS & PARAMETERS

VOICE SELECTION JOB 1

```
<Piano      >CH 1
▶P01 P02 P03 P04
```

Summary: Assigns a preset or internal voice to each MIDI channel.

Settings:
off, P01 ... P64 (preset voices)
I01 ... I64 (internal voices)
C01 ... C64 (card voices)

Procedure: Use the [◁] and [▷] cursor keys are used to move the cursor to the desired channel (a channel number between CH1 and CH16 will appear in the upper right-hand corner of the display), and then use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to assign the desired voice to the selected channel.

If you have selected a preset or internal multi-play setup, use the [PRESET] or [INTERNAL] key to select the "P" (preset) or "I" (internal) voice bank for each channel, as necessary.

Or, if you have selectd a card multi-play setup, use the [PRESET] or [CARD] key to select the "P" (preset) or "C" (card) voice bank for each channel, as necessary (internal voices cannot be selected for card multi-play setups).

By decrementing below the lowest voice (P01 or I01), the assignment for the current channel can be turned "off."

Details: The bank character ("P" or "I") of the voice currently selected in the voice mode is shown in reverse (i.e. white character on black background). The voice-mode voice can be switched to any voice assigned in this function by moving the cursor to the appropriate voice position and then pressing the [SELECT] key. The bank character of the newly selected voice-mode voice will then appear in reverse.

When the cursor is placed at the voice-mode voice number position, a reverse letter "E" will appear to the left of the channel number if the voice has been edited. In this case, the sound produced will be that of the edited voice.

Refer to: Tutorial, page 22.

VOLUME JOB 2

```
Volume      CH 1
▶127 127 127 127
```

Summary: Allows individual volume adjustment of the voice assigned each multi-play channel.

Settings: 0 ... 127

Procedure: The [◁] and [▷] cursor keys are used to select the channel/voice for which the volume is to be adjusted. The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to set the desired volume.

Details: A setting of "0" produces no sound while a setting of "127" produces the maximum volume available with the individual volume setting of that voice.

The ability to independently adjust the volume of each voice makes it simple to set up the optimum balance or "mix" between voices.

Refer to: Tutorial, page 23.

NOTE SHIFT JOB 3

```
Note Shift  CH 1
▶ +0  +0  +0  +0
```

Summary: Individually shifts the pitch of the voice assigned to each multi-play channel up or down in semitone steps.

Settings: −64 ... +63.

Procedure: The [◁] and [▷] cursor keys are used to select the channel/voice to be note-shifted. The [DATA ENTRY] control, [-1/NO] and [+1/ YES] keys, or numeric and [ENTER] keys are used to set the desired degree of note shift.

Details: A setting of "−12," for example, shifts the pitch of the selected voice down by one octave; a setting of "+4" shifts the pitch up by a major third.

The Note Shift function can be used to transpose a voice to its most useful range, or to create harmony (intervals) between different voices in a multi-play setup.

TUNE JOB 4

```
Tune        CH 1
▶ +0  +0  +0  +0
```

Summary: Allows each individual voice to be tuned over approximately a 150-cent range.

Settings: −64 ... +63

Procedure: The [◁] and [▷] cursor keys are used to select the voice/channel to be tuned. The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to set the desired degree of tuning.

Details: Each tuning increment corresponds to a 75/64-cent change in pitch. The entire tuning range is therefore 75/64 x 127 (i.e. 64 + 63 increments) — almost 150 cents. Since 100 cents equals one semitone, the tuning range is approximately one and a half semitones. A setting of "0" produces normal pitch.

MULTI EDIT MODE

```
ReserveNote CH 1
▶ 0    0    0    0
```

Summary: Reserves a minimum number of notes to be played simultaneously by each voice.

Settings: 0 ... 16

Procedure: The [◁] and [▷] cursor keys are used to select the voice/channel, then the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to set the number of reserved notes.

Details: The main use for this function is to ensure that a minimum number of notes are available to specific instruments even under circumstances in which less would normally be available. For example, if 1-element voices assigned to all 16 channels are played at once, each can only produce a single note. If one of those voices is an important piano voice that should be playing at least 3-note chords, for example, then the overall sound will be ruined. This problem can be overcome by setting the piano voice reserved note parameter to "3" so that the piano voice always has at least 3 notes available. This occurs, however, at the expense of the other voices, and if all 16 voices are played simultaneously (with the piano playing a 3-note chord), two of the instruments will not sound at all. You can specify which instruments should be sacrificed in such a case by setting the piano to "3" and all but two of the remaining instruments to "1." The remaining two instruments, set to "0," will be the ones that don't sound when a full complement of 16 notes is received.

Please keep in mind the fact that the SY55 can produce a maximum of 16 notes simultaneously no matter how this function is set. The total number of reserved notes set for all channels should not exceed 16.

Refer to: Tutorial, page 24.

```
Pan L......¦......R CH 1
▶ +0   +0   +0   +0
```

Summary: Determines the position in the stereo sound field in which the sound from each voice/channel will be heard (left to right).

Settings: vce, –31 ... +31

Procedure: The [◁] and [▷] cursor keys are used to select the voice/channel for which the pan position is to be set. The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to set the pan position.

The upper line of the display also shows a graphic representation of the stereo sound field with "L" representing "left" and "R" representing "right." As you change the pan value the vertical bar will appear at the corresponding position on the graphic display. If the "VCE" setting is selected, the original pan setting of the voice is retained.

Details: Minus values represent panning to the left, and positive values represent panning to the right. "0" positions the sound of the selected voice in the center of the stereo sound field.

Refer to: Tutorial, page 24. "THE CONTROLS AND CONNECTORS," page 7.

EFFECT LEVEL

```
EF Level    CH 1
▶100 100 100 100
```

Summary: Individually sets the effect level for the voice assigned to each multi-play channel.

Settings: 0 ... 100

Procedure: The [◁] and [▷] cursor keys are used to select the voice/channel for which the effect level is to be set. The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to set the effect level.

Details: A setting of "0" produces only the direct sound of the selected voice, while a setting of "100" produces maximum effect. Maximum effect is equivalent to the voice-mode EFFECT BALANCE setting.

Refer to: Tutorial, page 25. "EFFECT BALANCE," page 63. "EFFECT: TYPE/OUTPUT LEVEL" on page 85. "EFFECT: EFFECT PARAMETERS" on page 86.

EFFECT: SOURCE

```
EF\Source
          =multi
```

Summary: Determines whether the current multi-play setup will have its own effect settings or the effect parameters of one of the assigned voices will be applied.

Settings: multi, CH1 ... CH16

Procedure: Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the desired setting.

Details: When "multi" is selected, independent effect parameters can be assigned to the current multi-play setup via the following effect functions. When a channel number between "CH1" and "CH16" is selected, the effect parameters from the voice assigned to the selected channel number are applied to the current multi-play setup. In the latter case, the following effect functions are not available.

Refer to: "EFFECT: TYPE/OUTPUT LEVEL" on page 85. "EFFECT: EFFECT PARAMETERS" on page 86.

EFFECT: TYPE/OUTPUT LEVEL

● **Type**

```
EF\Type
  1:Rev.Hall 100%
```

Summary: Selects one of 34 digital effects for the current multi-play setup.

Settings and operation are exactly the same as in the voice edit mode: refer to "EFFECT: TYPE/OUTPUT LEVEL" on page 85.

● **Output Level**

```
EF\Output Level
  1:Rev.Hall 100%
```

Summary: Sets the level of the selected multi effect in relation to the direct (no effect) sound.

Settings and operation are exactly the same as in the voice edit mode: refer to "EFFECT: TYPE/OUTPUT LEVEL" on page 85.

EFFECT: EFFECT PARAMETERS

```
EF\Time      :sec
  1.2 thru    14
```

Summary: Accesses the individual programmable parameters for the selected multi effect.

Settings and operation are exactly the same as in the voice edit mode: refer to "EFFECT: EFFECT PARAMETERS" on page 86.

MULTI NAME	JOB 11

```
MULTI Name
     "POP      "
```

Summary: Assigns a name of up to 10 characters to the current multi-play setup.

Settings: The following characters are available for use in multi names:

```
[Space] ! "#$%&' ()*+,-./0123456789:;<=>?@
ABCDEFGHIJKLMNOPQRSTUVWXYZ[_]^_`
abcdefghijklmnopqrstuvwxyz{|}→←
```

Procedure: Use the [◁] and [▷] cursor keys to place the underline cursor under the character to be changed. Use the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys to select the desired character. Continue until the entire voice name has been programmed.

Details: It's a good ideas to give your multi-play setups names that make them easily identifiable. If you've created a new multi that is set up for use with a song titled "The Way Things Are," for example, you could call it something like "TheWay.MUL".

Refer to: Tutorial, page 25.

MULTI RECALL	JOB 12

```
MULTI Edit
          Recall
```

Summary: Recalls the last multi-play setup edited from the SY55 edit buffer.

Settings: None

Procedure: After selecting the "MULTI Edit Recall" display, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to initialize or [-1/NO] to cancel the initialize operation.

"Completed!" will appear briefly when the recall operation is finished.

Details: Even if you've exited the multi edit mode and called a different multi-play setup, this function will recall the last multi-play setup edited with all parameters as they were at the time the multi edit mode was exited.

Please note, however, that a compare operation overwrites the recall buffer with the contents of the edit buffer at that time. A recall operation following a compare operation will therefore recall the contents of the edit buffer at the time of the compare operation.

Refer to: Tutorial, page 25.

113

```
MULTI
         Initialize
```

Summary: Initializes all parameters of the current multi-timbral setup.

Settings: None.

Procedure: After selecting the "MULTI Initialize" display, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to initialize or [–1/NO] to cancel the initialize operation.

"Completed!" will appear briefly when the initialization is finished.

Details: When Multi Initialize is executed, the multi parameters are initialized to the following values:

The multi initialize function is useful if you want to begin programming a multi-timbral setup "from scratch."

Jobs	Initialized Values		
Voice selection	P01		
Volume	127		
Note shift	+0		
Tune	+0		
Reserved note	0		
Panning	+0		
Effect: level	0		
Effect: source	multi		
Effect: type/output level	Type 1	Output level 100%	
Effect: effect parameters	Time 2.6 sec	LPF 8.0 KHz	Delay 29 ms
Multi name	INIT MULTI		

SEQUENCER MODE

Contents

GENERAL OPERATION

Selecting the Sequencer Play, Record, & Edit Mode Jobs

All basic sequencer record and playback operations have been described in detail in "RECORDING & PLAYBACK WITH THE SEQUENCER" in the tutorial section of this manual.

The play and record mode jobs listed in the following pages can be accessed from either the sequencer play or record standby modes by using the standard page access or job number entry methods (see page 52).

The sequencer edit mode is accessed by pressing the [EDIT/ COMPARE] key while in the sequencer play mode, and the sequencer edit mode jobs are selected by using the standard page access or job number entry methods. The sequencer edit mode can be exited at any time by pressing the [EXIT] key.

JOBS & PARAMETERS

■ SEQUENCER PLAY & RECORD MODES ■

MEASURE, TEMPO & TIME SIGNATURE   JOB 1

● Play Mode Display

```
SONG   1:NewSong
M001 T120  4/ 4
```

● Record Mode Display

```
over            TR1
M001 T120  4/ 4
```

Summary: Allows selection of the measure from which to begin playback or recording, the tempo at which to play or record, and the time signature of a new track to be recorded.

Settings:
Measure: M001 — M999 (max. is last measure in sequence).
Tempo: T030 — T240 (beats per minute).
Time Signature: 1/4 ... 4/4, 1/8 ... 8/8, 1/16 ... 16/16.

Procedure: Use the [◁] and [▷] cursor keys to move the underline cursor to the desired parameter, then use the [DATA ENTRY] control, the [–1/ NO] and [+1/YES] keys, or the numeric and [ENTER] keys to set as required.
The time signature parameter can only be accessed in the record mode when nothing has yet been recorded to the currently selected song. Further, the time signature numerator and denominator can be selected separately using the [◁] and [▷] keys.

Details: Although the upper line of this display is different in the play and record modes (song number in play mode, record mode and record track in record mode — see "RECORDING & PLAYBACK WITH THE SEQUENCER" in the tutorial section), the parameters on the lower line are the same in both modes.

Refer to: Tutorial, page 28.

CLICK SELECT   JOB 2

```
SONG   1:NewSong
  Click=    rec
```

Summary: Determines when the sequencer's metronome click sounds.

Settings: off, rec, play/rec, always

Procedure: Use the [DATA ENTRY] control or [–1/ NO] and [+1/YES] keys to select the desired click mode.

Details: The "off" setting means that the metronome never sounds. This setting is useful for recording free-tempo passages. The "rec" setting causes the metronome to sound only during recording, the "rec/play" setting causes the metronome to sound during both recording and playback, and the "always" setting causes the metronome to sound all the time — even when the sequencer is not running. The last setting (always) allows the metronome to be used for keyboard practice.

The volume of the click metronome sound can be adjusted via the rear-panel [CLICK VOLUME] control.

Refer to: Tutorial, page 29, "REAR PANEL," page 7.

118

SYNC SELECT | JOB 3

```
SONG  1:NewSong
       Sync=internal
```

Summary: Determines whether the SY55 sequencer timing is synchronized by its own internal clock or an external MIDI clock.

Settings: internal, MIDI

Procedure: Use the [DATA ENTRY] control or [-1/NO] and [+1/YES] keys to select the desired sync mode.

Details: "internal" is the normal setting when the SY55 is being used alone. If you are using the SY55 with an external sequencer, MIDI computer, or other MIDI device, and you want the SY55 to be synchronized to the external device, set this function to MIDI. In the latter case, the external device must be connected to the SY55 MIDI IN connector, and must be transmitting an appropriate MIDI clock signal.

Refer to: Page 27 of separate MIDI DATA FORMAT.

Sequencer

Set to "MIDI" sync to synchronize SY55 sequencer to external MIDI device.
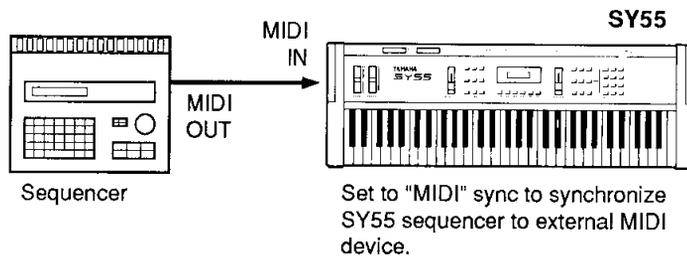
TRACK TRANSMIT CHANNEL | JOB 4

```
SONG  1:NewSong
       Tch:TR1= 1
```

Summary: Determines which MIDI channel the data from each sequencer track will be transmitted on.

Settings:
Track: 1 ... 8.
Channel: 1 ... 16

Procedure: Use the [◁] and [▷] cursor keys to select the track parameter (TR1 ... TR8) or MIDI channel parameter (1 ... 16 to the right of the "=" sign). Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the desired track or channel.

Details: The track transmit channel assignments can normally be left at their default settings — i.e. track 1 = channel 1, track 2 = channel 2, etc. This means that there is an easy-to-follow one-to-one correspondence between the sequencer tracks and the receive channels of your multi-play setups.

This function becomes most useful when the SY55 sequencer data is used to play external MIDI tone generators or keyboards in addition to the internal tone generator system. The track transmit channel function allows you to match the SY55 transmission channels to the receive channels of your external tone generator/keyboard setup.

Refer to: Tutorial, page 27.

119

```
SONG   1:NewSong
fr= 99% Rch= kbd
```

Summary: Selects input from the SY55 keyboard, or sets the MIDI receive channel when data is to be recorded from an external MIDI device.

Settings: kbd, 1 ... 16, omni

Procedure: Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select "kbd" or a MIDI channel. When using the numeric keys, "00" = "kbd," and any number higher than 16 selects "omni."

Details: This function must be set to "kbd" if you will be recording from the SY55 keyboard. If you will be recording from an external MIDI controller such as a master keyboard or wind controller, however, select the appropriate MIDI channel or the "omni" mode for reception on all MIDI channels.

The "fr=***%" ("***" is a number between and 100) display to the left of the lower display line shows the remaining sequencer memory capacity in percent.

```
SONG   1:NewSong
A.T=off  Vel= on
```

Summary: Independently turns recording of velocity and after touch data on or off.

Settings:
A.T (After Touch): on, off
Vel (Velocity): on, off

Procedure: Use the [◁] and [▷] cursor keys to select the A.T or Vel. parameter, and use the [DATA ENTRY] control or [-1/NO] and [+1/YES] keys to turn the selected parameter on or off.

Details: After touch data tends to be quite voluminous, and can use up the sequencer memory capacity quickly, For this reason, the default setting for after touch data recording is "off." turn this parameter "on" only if you specifically want to use an after touch effect.

The default setting for velocity data (initial touch) recording is "on." This is because the amount of velocity data produced is only small compared with after touch data, and the velocity data is essential for reproduction of keyboard dynamics. Velocity data recording can be turned "off" to flatten out the dynamics of a performance, if desired.

MIDI CONTROL	JOB 7

```
SONG  1:NewSong
MIDI Control= on
```

Summary: Turns the sequencer MIDI control functions on or off.

Settings: on, off

Procedure: Use the [DATA ENTRY] control or [-1/NO] and [+1/YES] keys to turn MIDI control on or off.

Details: When this parameter is turned "off," the following MIDI functions are de-activated:

1. Transmission and reception of MIDI start, stop and continue messages.
2. MIDI clock transmission.
3. MIDI song position pointer reception (the SY55 does not transmit song pointer messages).

MIDI control can be turned "off" to prevent unwanted interference from external MIDI devices connected to the SY55, and/or to prevent the SY55 sequencer from affecting operation of the external equipment.

Refer to: Page 24 of separate MIDI DATA FORMAT.

SEQUENCER MODE

MIXDOWN

JOB 1

```
Mixdown
  TR1 + TR1 → TR1
```

Summary: Combines the data from two different tracks and copies the result to a third track.

Settings:
Source track 1: 1 ... 8
Source track 1: 1 ... 8
Destination track: 1 ... 8

Procedure: Use the [◁] and [▷] cursor keys to select the first source track (the leftmost parameter, before the "+" sign), the second source track (the center parameter, after the "+" sign), or the destination track (the rightmost parameter, after the "→" sign). Use the [DATA ENTRY] control, [–1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the track numbers.

After selecting the desired source and destination tracks, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to mixdown or [–1/NO] to cancel the operation.

"Executing!" will appear on the display during mixdown, and "Completed!" will appear briefly when the mixdown is finished.

Details: The mixdown function is most useful when you want to record more than 8 individual parts. Successfully recorded parts can be combined using this function, thus opening up more tracks for further recording. The data in the source tracks is not erased during a mixdown operation.

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.

Source track 1

Source track 2

Destination track (mixdown result)
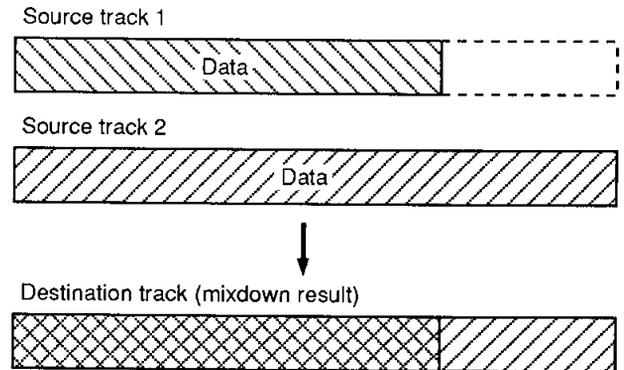
QUANTIZE

JOB 2

```
Quantize
  TR1    Size 1/48
```

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

Settings: 1/48, 1/32, 1/24, 1/16, 1/12, 1/8, 1/6, 1/4

Procedure: Use the [◁] and [▷] cursor keys to select the track (leftmost) or quantize value

(rightmost) parameter. Use the [DATA ENTRY] control, [–1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the track number or quantize value.

After selecting the desired track and quantize value, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to quantize or [–1/NO] to cancel the operation.

"Executing!" will appear on the display during quantization, and "Completed!" will appear

briefly when quantization is finished.

Details: 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.

The various quantize values correspond to note lengths as follows:

One measure of 8th notes before quantization.

After quantization.

● Quantize/note correspondences

QUANTIZE VALUE	BEAT	QUANTIZE VALUE	BEAT
1/4	♩	1/16	♬
1/6	⌐3¬ ♩	1/24	⌐3¬ ♬
1/8	♪	1/32	♬
1/12	⌐3¬ ♪	1/48	⌐3·¬ ♬

DELETE

```
Delete All Track
M001 ~ 001
```

Summary: Deletes the specified measure or range of measures from all tracks.
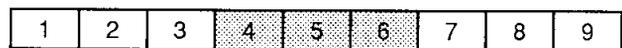
Settings: Beginning and end measure numbers.

Procedure: Use the [◁] and [▷] cursor keys to select the beginning (leftmost) or end (rightmost) measure parameter. Use the [DATA ENTRY] control, [–1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the measure numbers.

After selecting the desired measure numbers, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to delete the selected measures or [–1/NO] to cancel the operation.

"Executing!" will appear on the display during delete, and "Completed!" will appear briefly when the delete operation is finished.

Details: It's important to remember 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.

Delete M004 — 006

Measure 4 through 6 deleted.
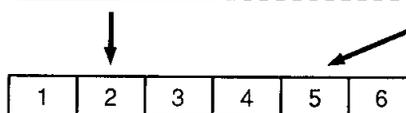
Subsequent measures moved back.

```
Insert All Track
M001~001 → M001
```

Summary: Inserts a specified measure or range of measures from all tracks before any other specified measure.

Settings:
Beginning and end source measure numbers.
Destination measure number.

Procedure: Use the [◁] and [▷] cursor keys to select the beginning source measure (the leftmost parameter), the end source measure (the center parameter), or the destination measure (the rightmost parameter). Use the [DATA ENTRY] control, [–1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the measure numbers.

After selecting the desired source and destination measures, press the [ENTER] key. "Sure?"

will appear on the upper line of the display. Press the [+1/YES] to insert or [–1/NO] to cancel the operation.

"Executing!" will appear on the display during insert, and "Completed!" will appear briefly when the insert operation is finished.

Details: Insert affects all tracks simultaneously. The source measure or range of measures in inserted <u>before</u> the specified destination measure.

Insert M002 — 004 → 006

1	2	3	4	5	6

Measure 6 moved up; measures 2, 3 and 4 inserted.

1	2	3	4	5	2	3	4	6

↓

Result with new measure numbers.

1	2	3	4	5	6	7	8	9

COPY

JOB 5

```
Copy  TR1 → TR1
M001~001 → M001
```

Summary: Copies a specified measure or range of measures from one track to the specified measure in another track.

Settings:
Source and destination track numbers: 1 ... 8
Beginning and end source measure numbers.
Destination measure number.

**Procedure:** Use the [◁] and [▷] cursor keys to select the source track (leftmost parameter, upper line), destination track (rightmost parameter, upper line), beginning source measure (leftmost parameter, lower line), end source measure (center parameter, lower line), or destination measure (rightmost parameter, lower line). Use the [DATA ENTRY] control, [–1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the track and measure numbers.

After selecting the desired source and destination tracks/measures, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to copy or [–1/NO] to cancel the operation.

"Executing!" will appear on the display during copy, and "Completed!" will appear briefly when the copy operation is finished.

```
Copy  TR1 → TR2
     M003~005 → M006
```

● TRACK 1

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

● TRACK 2

| 1 | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 9 |

● TRACK 2 (Result with new measure numbers.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Details: A copy operation overwrites the data from the beginning of the specified destination measure with the data from the source measure(s). Previous data in the overwritten measures is therefore lost.
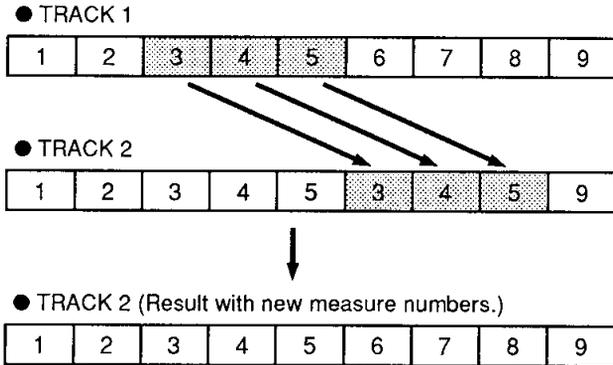
ERASE

JOB 6

```
Erase
    TR1  M001 ~ 001
```

Summary: Erases all note and event data from the specified measure or range of measures in the specified track.

Settings:

Track number: 1 ... 8.
Beginning and end measure numbers.

Procedure: Use the [◁] and [▷] cursor keys to select the track (leftmost parameter), beginning measure (center parameter), or end measure (rightmost parameter). Use the [DATA ENTRY] control, [–1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the track and measure numbers.

After selecting the desired track and measures, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to erase or [–1/NO] to cancel the operation.

"Executing!" will appear on the display during erase, and "Completed!" will appear briefly when the erase operation is finished.

Details: An erase operation leaves the specified measures intact but blank.

```
Erase
    TR1  M004 ~ 006
```

● TRACK 1

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

● TRACK 1

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
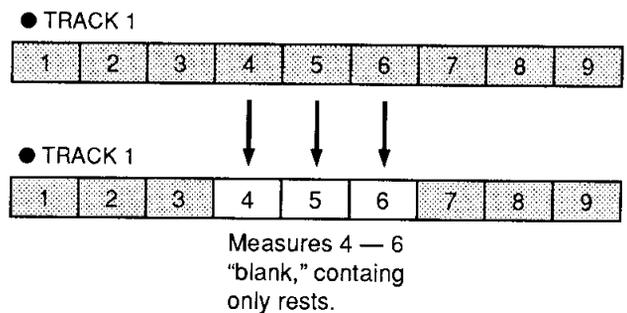
Measures 4 — 6
"blank," containg
only rests.

```
Remove PB
  TR1  M001 ~ 001
```

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

Settings:

Event parameter: PB, AT, CT (control change number: 0 ... 120).
Track number: 1 ... 8.
Beginning and end measure numbers.

Procedure: Use the [◁] and [▷] cursor keys to select the event parameter (upper line), track (leftmost parameter, lower line), beginning measure (center parameter, lower line), or end measure (rightmost parameter, lower line). Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys to select the event type. The numeric and [ENTER] keys can also be used to select the track and measure numbers.

If "CT" (control change) is selected, a control number parameter will also appear on the upper display line: use the cursor keys to select it and the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to select the control change number to be removed.

After selecting the desired event, track, and measures, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to remove or [-1/NO] to cancel the operation.

"Executing!" will appear on the display during remove, and "Completed!" will appear briefly when the remove operation is finished.

Details: "PB" stands for Pitch Bend, "AT" stands for After Touch, and "CT" stands for control change. If you choose to remove control change events — modulation wheel, breath controller, volume, etc. — you must also specify the control change number corresponding to the specific even you want to remove. Abbreviations for common control change events are displayed to the right of the control change numbers to which they are assigned. Unassigned control change numbers are followed by "—."

For your reference, the following is a list of assigned controllers:

Number	Controller
1	MOD (Modulation wheel)
2	BC (Breath controller)
4	FC (Foot controller)
5	POT (Portament time)
6	DE (Data entry control)
7	VOL (Volume)
8	BAL (Balance)
10	PAN (Pan)
11	EXP (Expression)
64	HD1 (Hold 1)
65	POS (Portament switch)
66	SST (Sostenuto)
67	SFT (Soft pedal)
69	HD2 (Hold 2)
91	EFF (Effect switch)
92	TRE (Tremolo)
93	CHO (Chorus)
94	CEL (Celeste)
95	PHA (Phaser)
96	INC (Increment)
97	DEC (Decrement)
98	NRP (Non registered parameter no. LSB)
99	NRP (Non registered parameter no. MSB)
100	RPN (Registered parameter no. LSB)
101	RPN (Registered parameter no. MSB)

Refer to: Page 26 of separate MIDI DATA FORMAT.

SONG NAME

JOB 8

```
SONG Name
     "NewSong "
```

Summary: Assigns a name of up to 10 characters to the current voice.

Settings: The following characters are available for use in voice names:

```
[Space] ! "#$%&'()*+,-./0123456789:;<=>?@
ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`
abcdefghijklmnopqrstuvwxyz{|}→←
```

Procedure: Use the [◁] and [▷] cursor keys to place the underline cursor under the character to be changed. Use the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys to select the desired character. Continue until the entire voice name has been programmed.

Details:

Refer to: Tutorial, page 27.

SONG PROGRAM

JOB 9

```
SONG Program off
M P01:POP
```

Summary: Creates a program for the currently selected song number that loads a specified multi-play setup or voice from the internal, preset or card bank when the same song is later selected in the sequencer play mode.

Settings:
Mode: on/off.
Multi (M): I1 ... I16 , P1 ... P16, or C1 ... C16.
Voice (V): I1 ... I64 , P1 ... P64, or C1 ... C64.

Procedure: Use the [◁] and [▷] cursor keys to select the desired parameter. The mode (on or off) parameter in the upper right-hand corner and the M/V (multi or voice) parameter in the lower left-hand corner of the display can be switched using the [DATA ENTRY] control or [-1/NO] and [+1/YES] keys.

The multi or voice bank can be selected using the [INTERNAL], [PRESET] and [CARD] keys, and the multi or voice number is selected using the [DATA ENTRY] control, the [-1/NO] and [+1/YES] keys, or the numeric and [ENTER] keys.

Details: If the SONG Program is turned "on" and an appropriate multi-play setup of voice is selected, a display similar to the following will appear when the corresponding song number is later selected (or the sequencer mode is selected and the corresponding song number is the first to appear.

```
SONG  1:SongName
Load Song Data ?
```

If, however, the multi-play setup or voice specified in the song program is already selected, there's no need to load the data so the above display will not appear. Press the [+1/YES] key to load the program data and continue, or the [-1/NO] key to continue without loading the data.

SEQUENCER MODE

```
SONG Clear
```

Summary: Clears the currently selected song from memory.

Settings: None

Procedure: After selecting the SONG Clear display, press the [ENTER] key. "Sure?" will appear on the upper line of the display. Press the [+1/YES] to clear or [-1/NO] to cancel the operation.

"Executing!" will appear on the display during clear, and "Completed!" will appear briefly when the clear operation is finished.

Details: In addition to clearing all sequencer data for the current song, the clear function initializes the following parameters:

Functions	Initialized Values
Song name	New Song
Tempo	120
Time signature	4/4

UTILITY MODE

Contents

Selecting the UtilityMode & Jobs

The utility mode and its various jobs are selected in exactly the same way as in the voice, drum, multi-play and sequencer edit modes. Press [UTILITY] to enter the utility mode; use the page access or direct job number entry procedure to select jobs; use the [◁] and [▷] cursor keys to select parameters within a job display; and use the [DATA ENTRY] control, [–1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to change values or settings. When using the page access method, the MIDI and CARD jobs are contained in subsets accessed by pressing the [ENTER] key at the appropriate screen, and exited by pressing the [EXIT] key.

UTILITY

MASTER TUNE   JOB 1

```
┌─────────────────────────┐
│ UT Master Tune          │
│                  = +0   │
└─────────────────────────┘
```

Summary: Tunes the overall pitch of the SY55 over approximately a 150-cent range.

Settings: –64 ... +63

Procedure: The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to set the desired degree of tuning.

Details: Each tuning increment corresponds to a 75/64-cent change in pitch. The entire tuning range is therefore 75/64 x 127 (i.e. 64 + 63 increments) — almost 150 cents. Since 100 cents equals one semitone, the tuning range is approximately one and a half semitones. A setting of "+0" produces normal pitch.

Refer to: "TUNE," page 97 and 109.

TRANSPOSE   JOB 2

```
┌─────────────────────────┐
│ UT Transpose            │
│                  = +0   │
└─────────────────────────┘
```

Summary: Transposes the overall pitch of the SY55 up or down in semitone steps.

Settings: –64 ... +63.

Procedure: The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to set the desired degree of transposition.

Details: A setting of "–12," for example, transposes down by one octave; a setting of "+4" transposes up by a major third.

Refer to: "NOTE SHIFT," pages 59, 97 and 109.

VELOCITY CURVE JOB 3

```
UT Vel.Curve
       =1(normal )
```

Summary: Selects one of eight different velocity curves.

Settings: 1 (normal), 2 (soft-1), 3 (soft-2), 4 (easy), 5 (wide), 6 (hard), 7 (cross-1), 8 (cross-2)

Procedure: The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to select the desired velocity curve.

Details: The velocity curves determine how the SY55 responds to different velocity values (i.e. keyboard dynamics). Different keyboards and controllers have different velocity sensitivity, and different players have individual preferences. This function lets you select the velocity curve that best suits your keyboard/controller and playing style. Try each one out to find the one you like best.

EFFECT JOB 4

```
UT Effect
           = on
```

Summary: Turns the SY55 effect processor on or off.

Settings: off, on

Procedure: Use the [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys to turn the effect processor off or on.

Details: This function completely turns the system effect processor off or on, so when it is turned off, **no** effects are applied to any voices or multi-play setups.

Refer to: "EFFECT: TYPE/OUTPUT LEVEL" on page 85. "EFFECT: EFFECT PARAMETERS" on page 86.

133

```
UT MIDI\Receive
Ch=omni Note=all
```

Summary: Sets the SY55 MIDI receive channel to any channel between 1 and 16, or the "omni" mode for reception on all channels.

Settings:
Ch: 0 ... 16, omni
Note: all, odd, even

Procedure: Use the [◁] and [▷] keys to select the "Ch" or "Note" parameter, then the [DATA ENTRY] control or [-1/NO] and [+1/YES] keys to set as required. The numeric and [ENTRY] keys can also be used to select the channel number.

Details: Make sure that the SY55 MIDI receive channel is either set to the channel that your keyboard/controller is transmitting on, or the omni mode.

The "Notes = all" setting means that the SY55 will play all notes received. If the "odd" or "even" setting is chosen, the SY55 will play only odd or even-numbered notes (based on their MIDI note numbers) received from an external MIDI controller or sequencer. This allows two SY55's to be used — one set to "odd" and one to "even" — to achieve 32-note polyphony.

Refer to: "ERROR MESSAGES," page 144.

```
UT MIDI\KbdTch
          = 1
```

Summary: Sets the MIDI transmit channel for the SY55.

Settings: 1 ... 16.

Procedure: Use the [DATA ENTRY] control, the [-1/NO] and [+1/YES] keys, or the numeric and [ENTER] keys to select the desired MIDI transmit channel number.

Details: The MIDI transmit channel job is used primarily to match the transmit channel of the SY55 with the receive channel of an external MIDI device being driven by the SY55. When a multi-play setup is selected, however, the MIDI transmit channel setting also determines which of the setup's voices is played via the SY55 keyboard.

Refer to: Tutorial, page 20.

LOCAL CONTROL ON/OFF   JOB 7

```
UT MIDI\Local
           = on
```

Summary: Determines whether the SY55 keyboard controls the internal tone generator system or not.

Settings: on, off.

Procedure: Use the [DATA ENTRY] control or [–1/NO] and [+1/YES] keys to turn local control on or off.

Details: Normally, local control will be turned "on" so that the SY55 keyboard plays its own internal tone generator system. If you want to control an external MIDI tone generator or other device from the SY55 keyboard <u>without</u> playing the internal tone generator, turn local control "off." One possibility is to drive the SY55 tone generator system from the internal sequencer while independently playing a separate external tone generator from the SY55 keyboard.

Local control is automatically turned ON whenever the power is turned ON.

MIDI PROGRAM CHANGE   JOB 8

```
UT MIDI\Program
         =direct
```

Summary: Determines whether the SY55 will respond to MIDI program change messages for remote voice/multi selection.

Settings: off, normal, direct

Procedure: The [DATA ENTRY] control or [+1/YES] and [–1/NO] keys are used to select the desired MIDI program change reception mode.

Details: The "off" setting turns MIDI program change reception off, so operating the voice selectors on your keyboard/controller will not cause the corresponding SY55 voice or multi-play setup to be selected.

In the "normal" mode, program change numbers 0 through 63 select SY55 voices 1 through 64, and program change numbers 64 through 79 select multi-play setups 1 through 16.

The "direct" mode allows, in addition to the voice and multi-play selection of the "normal" mode, selection of the various SY55 modes by reception of program change numbers 119 through 127.

Refer to: "ERROR MESSAGES," page 144. Page 3 of separate MIDI DATA FORMAT.

UTILITY

135

```
UT MIDI\Device#
              =all
```

Summary: Sets the SY55 MIDI device number — i.e. the MIDI channel on which all system exclusive data will be received and transmitted.

Settings: off, 1 ... 16, all

Procedure: The [DATA ENTRY] control, [-1/NO] and [+1/YES] keys, or numeric and [ENTER] keys are used to select the desired device number or turn system exclusive reception/transmission off.

Details: The device number is important for transfer of voice data and other system exclusive data between the SY55 and other YAMAHA MIDI devices — e.g. another SY55, the SY55 Digital Synthesizer, a YAMAHA MIDI sequence recorder such as the QX3, etc. Bulk voice data, for example, is transmitted and received on the channel specified by the device number (see the BULK IN PROTECT and BULK OUT functions, described below). Make sure that the SY55 device number is matched to that of other devices in your system with which such data transfers will take place.

Refer to: "ERROR MESSAGES," page 144. "MIDI BULK OUT," page 137.

```
UT MIDI\Bulk In
       Protect= on
```

Summary: Enables or disables bulk data reception.

Settings: off, on

Procedure: The [DATA ENTRY] control or [+1/YES] and [-1/NO] keys are used to select off or on..

Details: When this function is set to "off," the SY55 will automatically receive a bulk dump of voice, multi-play or system data from an external device connected to its MIDI IN terminal when the appropriate bulk dump data is received (assuming that the SY55 and transmitting device are both set to the same device number).

Turn bulk in protect "on" to disable bulk dump reception (this prevents accidental disruption of the SY55 during use).

Bulk in protect automatically turned ON whenever the power is turned ON.

Refer to: "MIDI BULK OUT," page 137. "ERROR MESSAGES," page 144. "MIDI DEVICE NUMBER," above.

MIDI BULK OUT — JOB 11

```
UT MIDI\Bulk Out
 syn  voice  P01
```

Summary: Initiates bulk transmission of multi-play, voice, system sequencer or all data.

Settings:

syn: multi I01 ... I16, P01 ... P16, int, pre.
     voice I01 ... I64, P01 ... P64, int, pre.
     V & M int, pre.
     system.
     all.

seq: song 1 ... 8.
     setup.
     all.

all:

Procedure: Use the [◁] and [▷] cursor keys to select the leftmost parameter and used the [DATA ENTRY] control or [+1/YES] and [−1/NO] keys to select synthesizer data ("syn"), sequencer data ("seq") or all data ("all"). Then move the cursor one step to the right and select the data type (multi, voice, V & M, system, or all when "syn" is selected; song, setup or all when "seq" is selected). Move the cursor one more step to the right and select the desired voice, multi or song number where applicable.

When the desired data has been selected, press [ENTER]. "Sure?" will appear at the top of the screen. Press [+1/YES] to actually begin transmission of the selected data. "Now Transmitting" will appear during transmission, and "Completed!" will appear briefly when the transmission has finished.

Details:

● **syn:** The "multi" setting allows transmission of individual or complete banks of multi-play setup data. Select I01 through I16 for individual transmission of the corresponding INTERNAL multi-play setup, or P01 through P16 for individual transmission of the corresponding PRESET multi-play setup. The "P" and "I" banks are switched using the [PRESET] or [INTERNAL] key. The "int" or "pre" setting that appears after the highest memory number causes transmission of the entire INTERNAL (int) or PRESET (pre) multi-play bank.

The "voice" setting allows transmission of individual or complete banks of voice data. Select I01 through I64 for individual transmission of the corresponding INTERNAL voice, or P01 through P64 for individual transmission of the corresponding PRESET voice. The "P" and "I" banks are switched using the [PRESET] or [INTERNAL] key. The "int" or "pre" setting that appears after the highest memory number causes transmission of the entire INTERNAL (int) or PRESET (pre) voice bank.

The "V & M" setting allows transmission of all voices and multi-play setups in the internal or preset bank. Select "int" or "pre" using the [−1/NO] and [+1/YES] keys.

The "system" setting transmits all system setup data — e.g. current mode, utility master tune, utility transpose, utility effect and other settings.

The "all" setting transmits all internal multi, voice and system data.

● **seq:** The "song" setting allows transmission of sequencer song 1 through 8. The "setup" setting transmits all sequencer setup data, and the "all" setting transmits all song and setup data.

● **all:** The "all' setting transmits all of the above data.

The BULK OUT job will not work if the SY55 MIDI device number is set to "off."

```
UT Card\Bank
      =1(unfmtd)
```

Summary: Selects bank 1 or bank 2 of a Yamaha MCD64 type memory prior to formatting or load/save operations..

Settings: 1, 2

Procedure: Use the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys to select the desired bank.

Details: The format of the selected bank is shown in parentheses following the bank number:

(55 SYN) = TG55/SY55 synthesizer format.
(55 SEQ) = SY55 sequencer format.
(SY77) = SY77 Digital Synthesizer format.

(V50) = V50 format.
(RX8) = RX8 Digital Rhythm Programmer format.
(YS S/V) = EOS synthesizer format.
(YS S/V) = EOS sequencer format.
(Unfmtd) = Unformatted.
(NoBank) = Bank unavailable (appears if bank 2 of single-bank MCD32 card is selected).

The only formats useable by the SY55 are "55 SYN" and "SY SEQ". Cards with a different format will have to be reformatted using the MEMORY CARD FORMAT job described below before they can be used with the SY55.

```
UT Card\Format
(unfmtd)    → syn
```

Summary: Formats MCD64 or MCD32 Memory Cards to the "55 SYN" or "55 SEQ) format required by the SY55.

Settings: syn, seq

Procedure: After selecting the card bank to be formatted using the MEMORY CARD BANK SELECT job described above, select this job and use the [DATA ENTRY] control or [+1/YES] and [-1/NO] keys to select the "syn" (voice data) or "seq" (sequencer data) format. Press [ENTER]. "Sure?" will appear at the top of the screen.

Press [+1/YES] to actually begin formatting. "Executing!" will appear during formatting, and "Completed!" will appear briefly when the format operation has finished.

Details: Formatting can only be carried out if the memory card WRITE PROTECT switch is turned OFF (refer to your MCD64 or MCD32

Memory Card instructions for details. If you attempt to format a memory card with the WRITE PROTECT switch set to ON, the following error display will appear:

```
ERROR! Hit"EXIT"
Data Card Prot.
```

If this happens, press the [EXIT] key to return to the previous display.

The current format of the selected card bank is shown in the parentheses to the left of the screen. See the format abbreviations in the "Details" section of the MEMORY CARD BANK SELECT job, described above.

SAVE SYN DATA   JOB 14

```
UT Card\Save
          SYN V & M
```

Summary: Saves voice and multi-play data, system data, or both (all) to a memory card.

Settings: V & M, system, all.

Procedure: This function can only be selected if a memory card formatted for voice data (55 SYN) is inserted in the DATA card slot.

After selecting the card bank to which the data is to be saved using the MEMORY CARD BANK SELECT job described above, select this job and choose the type of data to be saved ("V & M", "system" or "all") using the [–1/NO] and [+1/YES] keys. Then press [ENTER]. "Sure?" will appear at the top of the screen. Press [+1/YES] to actually begin loading. "Executing!" will appear during loading, and "Completed!" will appear briefly when the load operation has finished.

Details: Exercise caution when saving data to a memory card — the previous card data will be erased and completely replaced by the saved data.

The "V & M" setting saves all voice and multi-play data, the "system" setting saves only the system setup data (current mode, utility master tune, utility transpose, utility effect and others), and the "all" setting saves all of the above.

A data save operation can only be carried out if the memory card WRITE PROTECT switch is turned OFF (refer to your MCD64 or MCD32 Memory Card instructions for details). If you attempt to save with the WRITE PROTECT switch set to ON, the following error display will appear:

```
ERROR! Hit"EXIT"
Data Card Prot.
```

If this happens, press the [EXIT] key to return to the previous display.

LOAD SYN DATA   JOB 15

```
UT Card\Load
          SYN V & M
```

Summary: Loads voice and multi-play data, system data, or both (all) from a memory card into the SY55 internal memory.

Settings: V & M, system, all.

Procedure: This function can only be selected if a memory card formatted for voice data (55 SYN) is inserted in the DATA card slot.

After selecting the card bank containing the data to be loaded using the MEMORY CARD BANK SELECT job described above, select this job and choose the type of data to be loaded ("V & M", "system" or "all") using the [–1/NO] and [+1/YES] keys. Then press [ENTER]. "Sure?" will appear at the top of the screen. Press [+1/YES] to actually begin loading. "Executing!" will appear during loading, and "Completed!" will appear briefly when the load operation has finished.

Details: Exercise caution when loading data from a memory card — the corresponding internal SY55 data will be erased and completely replaced by the loaded data.

The "V & M" setting loads all voice and multi-play data, the "system" setting loads only the system setup data (current mode, utility master tune, utility transpose, utility effect and others), and the "all" setting loads all of the above.

SAVE ALL SEQ DATA JOB 16

```
UT Card\Save
        SEQ    all
```

Summary: Saves all sequencer data to a memory card.

Settings: None.

Procedure: This function can only be selected if a memory card formatted for sequencer data (55 SEQ) is inserted in the DATA card slot.

    After selecting the card bank to which the data is to be saved using the MEMORY CARD BANK SELECT job described above, press [EN-TER]. "Sure?" will appear at the top of the screen. Press [+1/YES] to actually begin loading. "Executing!" will appear during loading, and "Completed!" will appear briefly when the load operation has finished.

Details: Exercise caution when saving data to a memory card — the previous card data will be erased and completely replaced by the saved data.

    A data save operation can only be carried out if the memory card WRITE PROTECT switch is turned OFF (refer to your MCD64 or MCD32 Memory Card instructions for details). If you attempt to save with the WRITE PRO-TECT switch set to ON, the following error display will appear:

```
ERROR! Hit"EXIT"
Data Card Prot.
```

    If this happens, press the [EXIT] key to return to the previous display.

LOAD ALL SEQ DATA JOB 17

```
UT Card\Load
        SEQ    all
```

Summary: Loads all sequencer data from a memory card into the SY55 sequencer.

Settings: None.

Procedure: This function can only be selected if a memory card formatted for sequencer data (55 SEQ) or (YS SEQ) is inserted in the DATA card slot. After selecting the card bank containing the data to be loaded using the MEMORY CARD BANK SELECT job described above, select this job and press [ENTER]. "Sure?" will appear at

the top of the screen. Press [+1/YES] to actually begin loading. "Executing!" will appear during loading, and "Completed!" will appear briefly when the load operation has finished.

Details: Exercise caution when loading data from a memory card — the corresponding internal SY55 data will be erased and completely replaced by the loaded data.

CARD SONG DIRECTORY   JOB 18

```
UT Card\SongDir.
        C1:NewSong
```

Summary: Displays the titles (song names) of sequencer songs stored on a memory card.

Settings: Song 1 ... 8.

Procedure: This function can only be selected if a memory card formatted for sequencer data (55 SEQ) is inserted in the DATA card slot.

After selecting the card bank containing the songs you want to browse through using the MEMORY CARD BANK SELECT job described above, select this job. Use the [DATA ENTRY] control, the [–1/NO] and [+1/YES] keys, or the numeric and [ENTER] keys to select the desired song number. The corresponding song name will be shown to the right of the song number on the display.

Details: This job is particularly handy if you have several memory cards and you don't remember which one contains a specific song you're looking for.

SAVE 1 SONG   JOB 19

```
UT Card\SongSave
    I1→C1:NewSong
```

Summary: Saves a single sequencer song to a memory card.

Settings:
Internal song number: 1 ... 8.
Card song number: 1... 8.

Procedure: This function can only be selected if a memory card formatted for sequencer data (55 SEQ) is inserted in the DATA card slot.

After selecting the card bank to which the data is to be saved using the MEMORY CARD BANK SELECT job described above, select this job and use the [DATA ENTRY] control, the [–1/NO] and [+1/YES] keys, or the numeric and [EN-TER] keys to select the internal song number you want to save to the card. Then press the [▷] to move the cursor to the card song number parameter, and select the card song number to which you want to save the song. When you're ready to save, press [ENTER]. "Sure?" will appear at the top of the screen. Press [+1/YES] to actually begin saving. "Executing!" will appear during the save operation, and "Completed!" will appear briefly when the operation is finished.

Details: Exercise caution when saving data to a memory card — the previous card data will be erased and completely replaced by the saved data.

A data save operation can only be carried out if the memory card WRITE PROTECT switch is turned OFF (refer to your MCD64 or MCD32 Memory Card instructions for details). If you attempt to save with the WRITE PRO-TECT switch set to ON, the following error display will appear:

```
ERROR! Hit"EXIT"
Data Card Prot.
```

If this happens, press the [EXIT] key to return to the previous display.

```
UT Card\SongLoad
   C1→I1:NewSong
```

Summary: Loads a single sequencer song from a memory card into the SY55 sequencer.

Settings:
Card song number: 1... 8.
Internal song number: 1 ... 8.

Procedure: This function can only be selected if a memory card formatted for sequencer data (55 SEQ) is inserted in the DATA card slot.

After selecting the card bank from which the data is to be loaded using the MEMORY CARD BANK SELECT job described above, select this job and use the [DATA ENTRY] control, the [-1/NO] and [+1/YES] keys, or the numeric and [ENTER] keys to select the card song number you want to load. Then press the [▷] to move the cursor to the internal song number parameter, and select the internal song number to which you want to load the song. When you're ready to load, press [ENTER]. "Sure?" will appear at the top of the screen. Press [+1/YES] to actually begin loading. "Executing!" will appear during the load operation, and "Completed!" will appear briefly when the operation is finished.

Details: Exercise caution when loading data from a memory card — the corresponding internal SY55 data will be erased and completely replaced by the loaded data.

DELETE 1 CARD SONG   JOB 21

```
UT Card\SongDel.
    C1:NewSong
```

Summary: Deletes a single sequencer song from a memory card.

Settings: Song number: 1... 8.

Procedure: This function can only be selected if a memory card formatted for sequencer data (55 SEQ) is inserted in the DATA card slot.

After selecting the card bank from which the data is to be deleted using the MEMORY CARD BANK SELECT job described above, select this job and use the [DATA ENTRY] control, the [-1/NO] and [+1/YES] keys, or the numeric and [ENTER] keys to select the card song number you want to delete. When you're ready to delete, press [ENTER]. "Sure?" will appear at the top of the screen. Press [+1/YES] to actually delete the selected song. "Executing!" will appear during the delete operation, and "Completed!" will appear briefly when the operation is finished.

Details: Obviously, you should make quite sure that the song you have selected is the one you really want to delete before executing the delete operation.

ERROR MESSAGES

Things do go wrong from time to time, and people do make mistakes. When an error occurs, the SY55 will usually display a message that describes the type of error so you can easily take steps to rectify the problem. The following are quick summaries of the SY55 error displays.

MIDI Error Messages

```
ERROR! Hit"EXIT"
MIDI Buffer Full
```
MIDI receive buffer overflow. Too much MIDI data being received too quickly.

```
ERROR! Hit"EXIT"
MIDI Data
```
Unrecognizeable MIDI data.

```
ERROR! Hit"EXIT"
MIDI Check Sum
```
A checksum error occured during MIDI data reception.

```
ERROR! Hit"EXIT"
MIDI Device# off
```
Attempt to transmit bulk out or receive bulk data while device number is set to "off."

```
ERROR! Hit"EXIT"
MIDI Bulk Prot.
```
Bulk data was received but ignored because bulk protect function is "on."

```
****************
  Bulk Canceled
```
Bulk data reception was cancelled before completion. The upper row of asterisks is the previous display. Any key operation cancels this display.

Memory Card Error Messages

```
ERROR! Hit"EXIT"
No Data Card
```
Attempt to save or load while memory card not inserted in DATA card slot.

```
ERROR! Hit"EXIT"
Data Card Prot.
```
Attempt to save to or format memory card with WRITE PROTECT switch set to ON position.

```
ERROR! Hit"EXIT"
Data Card Format
```
Attempt to save to or load from unformatted memory card or card with wrong format.

```
ERROR! Hit"EXIT"
Verify Failed
```
Failure to verify data after save or load operation.

```
ERROR! Hit"EXIT"
Data Card Bat.Lo
```
Memory card battery voltage low. Replace battery as described in Memory Card instruction sheet.

```
ERROR! Hit"EXIT"
Data Card Bat.NG
```
Memory card voltage malfunction. Have the unit checked by qualified YAMAHA service personnel.

Miscellaneous Error Messages

```
ERROR! Hit"EXIT"
Internal Bat.Lo
```
Internal battery voltage low. Have battery replaced by qualified YAMAHA service personnel.

```
ERROR! Hit"EXIT"
Internal Bat.NG
```
Internal voltage malfunction. Have the unit checked by qualified YAMAHA service personnel.

```
ERROR! Hit"EXIT"
ID Mismatch
```
Voice with mismatched wave card ID exists in multi-play setup.

```
ERROR! Hit"EXIT"
No Wave Card
```
Wave card not inserted in WAVE slot.

```
ERROR! Hit"EXIT"
Wrong Wave Card
```
Voice ID and wave card ID do not match.

```
ERROR! Hit"EXIT"
Voice Type
```
Voice number and voice type do not match.

```
ERROR! Hit"EXIT"
Illegal Data
```
Wrong bulk dump byte count or unrecognizeable bulk, memory or card data.

145

SPECIFICATIONS

Keyboard	61 keys, initial and after-touch response.
Tone Generator System	AWM2 (2nd-generation 16-bit Advanced Wave Memory).
Internal Memory	Wave ROM: 74 preset waveforms. Preset ROM: 64 preset voices & 16 preset multi-play setups. Internal RAM: 64 user voices & 16 user multi-play setups.
External Memory	Voice data: MCD64 or MCD32 memory cards — write & read. Wave data: YAMAHA waveform cards — read only.
Sequencer	8 songs/8 tracks per song. Approx. 8,000 notes max.
Display	16-character x 2-line backlit LCD.
Controls	DATA ENTRY, MASTER VOLUME, PITCH, MODULATION, CLICK VOLUME (Sequencer.)
Keys & Switches	POWER, INTERNAL, CARD, PRESET, VOICE, MULTI, SEQ, EDIT/COMPARE, UTILITY, STORE/COPY, –1/NO, +1/YES, PAGE –, PAGE +, ◁, ▷, EXIT, SELECT, ENTER, JOB, numeric 0 — 9, –, ◄, ◄◄, ►►, RECORD, STOP, RUN.
Output Connectors	PHONES, OUTPUT L/MONO & R, BREATH CONTROLLER, SUSTAIN, FOOT VOLUME.
MIDI Connectors	IN, OUT, THRU.
Power Requirements/ Consumption	US & Canadian models: 120 V / 15 W General model: 220—240 V / 15 W
Dimensions (W x H x D)	911 x 90 x 325 mm (35-7/8" x 3-1/2" x 12-3/4")
Weight	9.7 kg (21 lbs. 6 oz)

* Specifications and appearance subject to change without notice.

INDEX

IMPORTANT
SAFETY AND INSTALLATION INSTRUCTIONS

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

WARNING — When using electronic products, basic precautions should always be followed, including the following:

1. Read all Safety and Installation Instructions, Supplemental Marking and Special Message Section data, and any applicable assembly instructions BEFORE using this product.

2. Check unit weight specifications BEFORE you attempt to move this product.

3. Main power supply verification. YAMAHA Digital Musical Instrument products are manufactured specifically for use with the main supply voltage used in the area where they are to be sold. The main supply voltage required by these products is printed on the name plate. For name plate location please refer to the graphic in the Special Message section. If any doubt exists please contact the nearest YAMAHA Digital Musical Instrument retailer.

4. Some YAMAHA Digital Musical Instrument products utilize external power supplies or adapters. Do NOT connect products of this type to any power supply or adapter other than the type described in the owners manual or as marked on the unit.

5. This product may be equipped with a plug having three prongs or a polarized line plug (one blade wider than the other). If you are unable to insert the plug into the outlet, contact an electrician to have the obsolete outlet replaced. Do NOT defeat the safety purpose of the plug. YAMAHA products not having three prong or polarized line plugs incorporate construction methods and designs that do not require line plug polarization.

6. **WARNING** — Do NOT place objects on the power cord or place the unit in a position where anyone could walk on, trip over, or roll anything over cords of any kind. An improper installation of this type can create the possibility of a fire hazard and/or personal injury.

7. Environment: Your YAMAHA Digital Musical Instrument should be installed away from heat sources such as heat registers and/or other products that produce heat.

8. Ventilation: This product should be installed or positioned in a way that its placement or location does not interfere with proper ventilation.

9. YAMAHA Digital Musical Instrument products are frequently incorporated into "Systems" which are assembled on carts, stands or in racks. Utilize only those carts, stands, or racks that have been designed for this purpose and observe all safety pre-

cautions supplied with the products. Pay special attention to cautions that relate to proper assembly, heavier units being mounted at the lower levels, load limits, moving instructions, maximum usable height and ventilation.

10. YAMAHA Digital Musical Instrument products, either alone or in combination with amplification, headphones, or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do NOT operate at high volume levels or at a level that is uncomfortable. If you experience any discomfort, ringing in the ears, or suspect any hearing loss, you should consult an audiologist.

11. Do NOT use this product near water or in wet environments. For example, near a swimming pool, spa, in the rain, or in a wet basement.

12. Care should be taken so that objects do not fall, and liquids are not spilled into the enclosure.

13. YAMAHA Digital Musical Instrument products should be serviced by a qualified service person when:
    a. The power supply/power adapter cord or plug has been damaged; or
    b. Objects have fallen, or liquid has been spilled into the products; or
    c. The unit has been exposed to rain; or
    d. The product does not operate, exhibits a marked change in performance; or
    e. The product has been dropped, or the enclosure of the product has been damaged.

14. When not in use, always turn your YAMAHA Digital Musical Instrument equipment "OFF". The power supply cord should be unplugged from the outlet when the equipment is to be left unused for a long period of time.
    NOTE: In this case, some units may lose some user programmed data. Factory programmed memories will not be affected.

15. Electromagnetic Interference (RFI). YAMAHA Digital Musical Instruments utilize digital (high frequency pulse) technology that may adversely affect Radio/TV reception. Please read FCC information (inside cover) for additional information.

16. Do NOT attempt to service this product beyond that described in the user maintenance section of the owners manual. All other servicing should be referred to qualified service personnel.

PLEASE KEEP THIS MANUAL
FOR FUTURE REFERENCE!

SPECIAL MESSAGE SECTION

ELECTROMAGNETIC INTERFERENCE (RFI): Your YAMAHA Digital Musical Instrument Product has been type tested and found to comply with all applicable regulations. However, if it is installed in the immediate proximity of other electronic devices, some form of interference may occur. For additional RFI information see the FCC information section located in this manual.

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

SPECIFICATIONS SUBJECT TO CHANGE: The information contained in this manual is believed to be correct at the time of printing. YAMAHA reserves the right to change or modify specifications at any time without notice or obligation to update existing units.

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

NAME PLATE LOCATION: The graphic below indicates the location of the Name Plate on your YAMAHA Digital Musical Instrument. The Model, Serial Number, Power requirements, etc., are indicated on this plate.

You should note the model, serial number and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.

STATIC ELECTRICITY CAUTION: Some YAMAHA Digital Musical Instrument products have modules that plug into the unit to perform various functions. The contents of a plug-in module can be altered/damaged by static electricity discharges. Static electricity build-ups are more likely to occur during cold winter months (or in areas with very dry climates) when the natural humidity is low. To avoid possible damage to the plug-in module, touch any metal object (a metal desk lamp, a door knob, etc.) before handling the module. If static electricity is a problem in your area, you may want to have your carpet treated with a substance that reduces static electricity build-up. See your local carpet retailer for professional advice that relates to your specific situation.

Model _____

Serial No. _____

Purchase Date _____

This information on safety is provided to comply with U.S.A. laws, but should be observed by users in all countries.

ᗑᎩᗑᗑ SEQUENCER REFERENCE

● BASIC RECORDING PROCEDURE FLOW

RECORD

| repl TR1
M001 T120 4/ 4 | over TR1
M001 T120 4/ 4 | punc 001~001 TR1
M001 T120 4/ 4 | step TR1
M001 T120 4/ 4 |

| Set measure, tempo, time signature. | Set measure, tempo, time signature. | Set punch-in, and out points. | Set measure, and time signature. |

| Select record track. | Select record track. | Select record track. | Select record track. |

RUN

RUN

Record.

Select note length and other factors.

Repeat until done.

Input note.

STOP

SEQUENCER RECORD & PLAY MODES

1. MEASURE, TEMPO & TIME SIGNATURE
2. CLICK SELECT
3. SYNC SELECT
4. TRACK TRANSIT CHANNEL
5. RECORD CHANNEL & FREE AREA
6. RECORD FILTER
7. MIDI CONTROL

SEQUENCER EDIT MODE

1. MIXDOWN

Source track 1

Data

Source track 2

Data
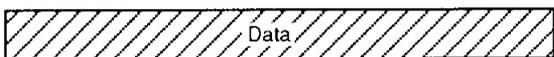
Destination track (mixdown result)

2. QUANTIZE

One measure of 8th notes before quantization.
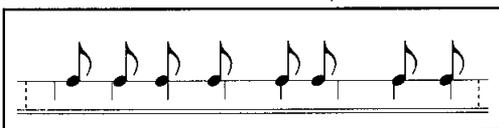
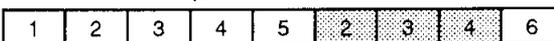After quantization.

3. DELETE

Delete M004 — 006

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

Measure 4 through 6 deleted.

| 1 | 2 | 3 | | | | 7 | 8 | 9 |

| 1 | 2 | 3 | 4 | 5 | 6 |
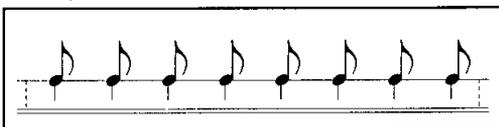
Subsequent measures moved back.

4. INSERT

Insert M002 — 004 → 006

| 1 | 2 | 3 | 4 | 5 | 6 |

Measure 6 moved up; measures 2, 3 and 4 inserted.

| 1 | 2 | 3 | 4 | 5 | 2 | 3 | 4 | 6 |

Result with new measure numbers.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

5. COPY

Copy TR1 → TR2
M003 — 005 → M006

● TRACK 1

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

● TRACK 2

| 1 | 2 | 3 | 4 | 5 | 3 | 4 | 5 | 9 |

● TRACK 2 (Result with new measure numbers.)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
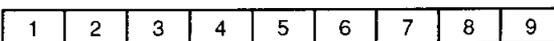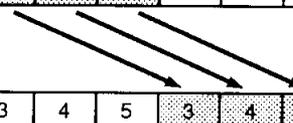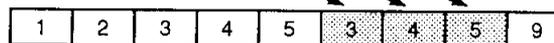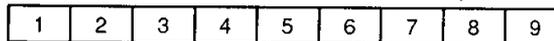
6. ERASE

Erase TR1 M004 — 006

● TRACK 1

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

● TRACK 1

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
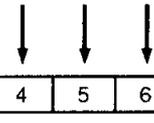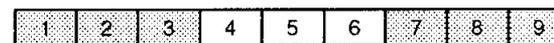
Measures 4 — 6
"blank," containg
only rests.

7. REMOVE EVENT
8. SONG NAME
9. SONG PROGRAM
10. SONG CLEAR

SY55 VOICE EDIT REFERENCE

● PRESET VOICE LIST

No.	EL*	Name	No.	EL	Name	No.	EL	Name
1	1	Piano	23	4	Big Band	45	2	VCO Lead
2	2	Voyager	24	2	Orch Brass	46	2	Spirit VCF
3	2	Pro55Brass	25	2	SynthBrass	47	2	OZ Lead
4	2	Elektrodes	26	1	Flute	48	4	Get Lucky
5	4	Zuratustra	27	1	Saxophone	49	4	Gamma Band
6	2	DawnChorus	28	2	FolkGuitar	50	2	Metal Reed
7	2	GX Dream	29	2	12 String	51	4	Modomatic
8	2	GrooveKing	30	2	MuteGuitar	52	2	DataStream
9	4	DistGuitar	31	2	SingleCoil	53	2	Mystichoir
10	4	ZenAirBell	32	1	Pick Bass	54	2	St.Michael
11	2	FullString	33	2	Thumb Bass	55	2	Scatter
12	4	Jazz Man	34	2	SynBadBass	56	2	Triton
13	2	ClassPiano	35	2	VCO Bass	57	4	Amazon
14	2	Rock Piano	36	2	Violin	58	2	SatinGlass
15	1	DX E.Piano	37	1	ChamberStr	59	4	BrassChime
16	2	Hard EP	38	2	VCF String	60	2	Piano Mist
17	2	Cry Clav	39	2	Nova Quire	61	4	Xanadu
18	2	Funky Clav	40	2	Vibraphone	62	2	WdBass Duo
19	2	Deep Organ	41	2	Takerimba	63	(61)	Drum Set 1
20	2	Warm Organ	42	1	Gloken	64	(61)	Drum Set 2
21	1	Trumpet	43	2	DigiBell			
22	4	Stab Brass	44	2	Oriental			

* EL=Number of elements.

● PRESET WAVE LIST

No.	Name	No.	Name	No.	Name	No.	Name
1	Piano	21	GtrSteel	41	Digital2	61	BD 3
2	E.Piano1	22	Gtr Gut	42	Digital3	62	SD 1
3	E.Piano2	23	12string	43	Pulse 10	63	SD 2
4	E.Piano3	24	E.Guitar	44	Pulse 25	64	SD 3
5	E.Piano4	25	E.Bass	45	Pulse 50	65	Rim
6	E.Piano5	26	Popping	46	Tri	66	Tom 1
7	E.Piano6	27	WoodBass	47	Voice	67	Tom 2
8	E.Piano7	28	Syn Bass	48	Piano Np	68	HHclosed
9	Harpsi	29	Violin	49	EPianoNp	69	HH open
10	Organ 1	30	Strings	50	Vibe Np	70	Crash
11	Organ 2	31	Chorus	51	Bottle	71	Ride
12	Pipe	32	Itopia	52	Tuba	72	Claps
13	Trumpet	33	Vibe	53	Vocal Ga	73	Cowbell
14	Mute Tp	34	Marimba	54	Bamboo	74	Shaker
15	Trombone	35	Glocken	55	Noise		
16	Flugel	36	Shamisen	56	Styroll		
17	Sax	37	Harp	57	Bulb		
18	Flute	38	Mtl Reed	58	Bell Mix		
19	Brass	39	Saw	59	BD 1		
20	SynBrass	40	Digital1	60	BD 2		

● SY55 Voice Edit Parameters

1. VOICE Mode
2. Wave Select
3. Volume
4. Note Shift
5. Detune
6. Note Limit/L
7. Note Limit/H
8. Vel. Limit/L
9. Vel. Limit/H
10. Pan
11. EF Balance
12. OSC Frq.Mode
    OSC Frq.Note
    OSC Frq.Tune
13. AEG Mode
    AEG R1/HT
    AEG R2
    AEG L2
    AEG R3
    AEG L3
    AEG R4
    AEG RR
14. AEG R.Scale
15. AEG LS BP1
    AEG LS BP2
    AEG LS BP3
    AEG LS BP4

16. AEG LS OFS1
    AEG LS OFS2
    AEG LS OFS3
    AEG LS OFS4
17. Sens. Vel.
    Sens. V.Rate
    Sens. AMS
    Sens. PMS
18. LFO Wave
    LFO Speed
    LFO Delay
    LFO Phase
19. LFO AMOD
    LFO PMOD
    LFO CutofMOD
20. PEG L0
    PEG R1
    PEG L1
    PEG R2
    PEG L2
    PEG R3
    PEG L3
    PEG RR
    PEG RL
21. PEG Range
    PEG R.Scale
    PEG Vel.SW

F I L T E R

22. FL\Type
    FL\Cutoff
    FL\Mode
23. FL\CEG L0
    FL\CEG R1
    FL\CEG L1
    FL\CEG R2
    FL\CEG L2
    FL\CEG R3
    FL\CEG L3
    FL\CEG R4
    FL\CEG L4
    FL\CEG RR1
    FL\CEG RL1
    FL\CEG RR2
    FL\CEG RL2
24. FL\R.Scale
25. FL\LS BP1
    FL\LS BP2
    FL\LS BP3
    FL\LS BP4
26. FL\LS OFS1
    FL\LS OFS2
    FL\LS OFS3
   FL\LS OFS4
27. FL\Resonance
    FL\Vel.Sens
    FL\Mod.Sens

28. Element Initialize
29. CNTL\Pitch Bend
30. CNTL\AT P.Bias
31. CNTL\RandomPitch
32. CNTL\AMOD CTL#
    CNTL\AMOD RNG
33. CNTL\PMOD CTL#
    CNTL\PMOD RNG
34. CNTL\CoffMOD CTL#
    CNTL\CoffMOD RNG
35. CNTL\Cutoff CTL#
    CNTL\Cutoff RNG
36. CNTL\EG Bias CTL#
    CNTL\EG Bias RNG
37. CNTL\Volume CTL#
    CNTL\Volume MIN

C O N T R O L L E R

E F

38. EF\Type
    EF\Output Level
39. EF\ ** Others **
40. VOICE Name
41. VOICE Edit Recall
42. VOICE Initialize

Shaded blocks represent
parameters available
within a single job display.

Basic AWMII Element

AWM WAVE   FILTER 1   FILTER 2   AMPLITUDE EG
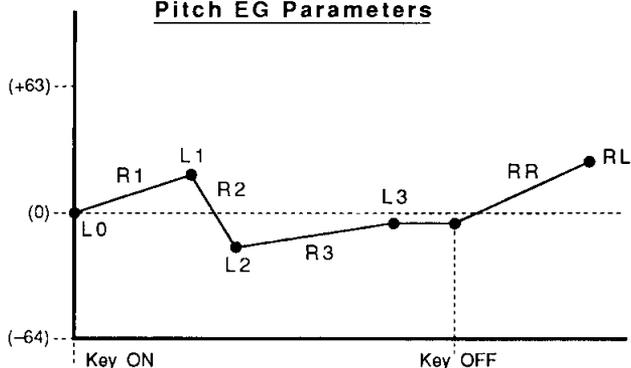
OUTPUT
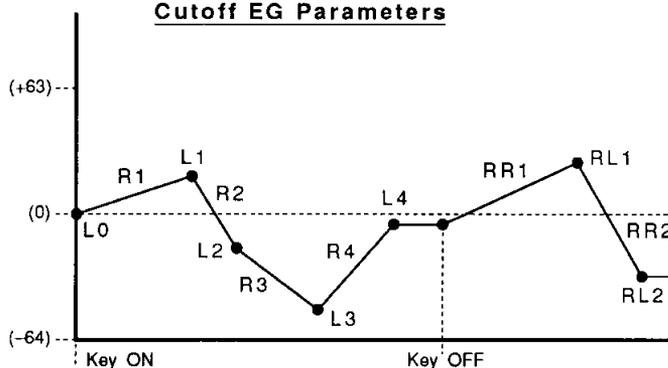
PITCH EG   CUTOFF EG1   CUTOFF EG2
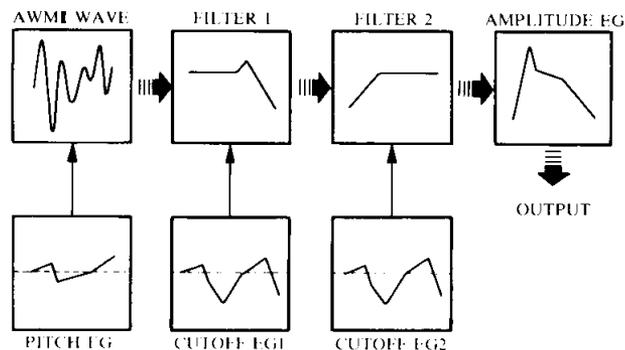
Amplitude EG Parameters
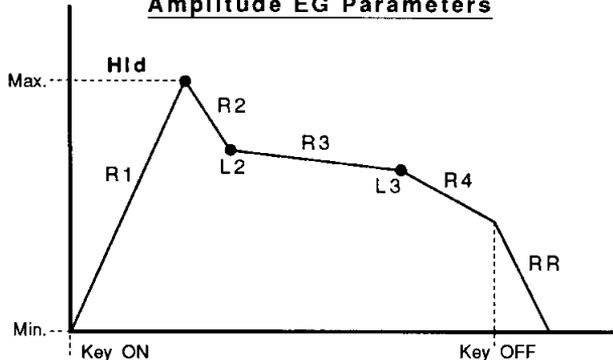
Pitch EG Parameters

Cutoff EG Parameters

Litiumbatteri!
Bör endast bytas av servicepersonal.
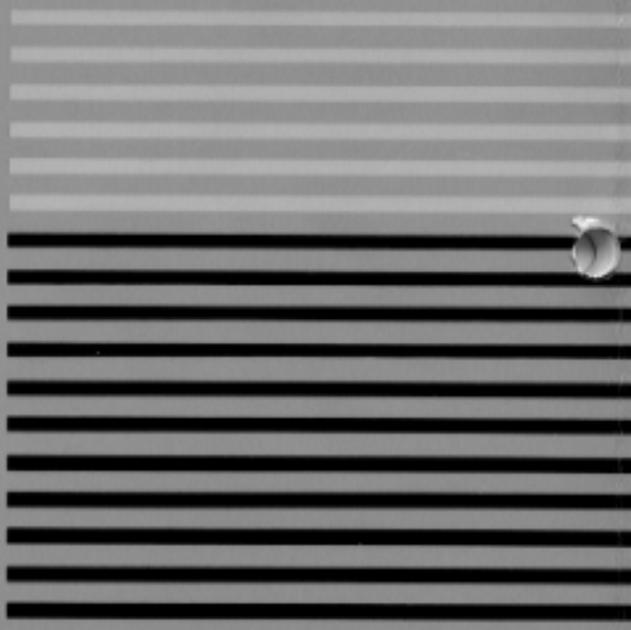Explosionsfara vid felaktig hantering.

VAROITUS!
Lithiumparisto, Räjähdysvaara.
Pariston saa vaihtaa ainoastaan alan
ammattimies.

ADVARSEL!
Lithiumbatteri!
Eksplosionsfare. Udskiftning må kun foretages
af en sagkyndig, – og som beskrevet i
servicemanualen.

SERVICE
This product is supported by YAMAHA's worldwide network
of factory trained and qualified dealer service personnel. In
the event of a problem, contact your nearest YAMAHA
dealer.

YAMAHA