

# Roland

MUSIC PRODUCTION SYSTEM *STUDIO M*

---

# MV-30

Owner's Manual



For West Germany

## Bescheinigung des Herstellers/Importeurs

Hiermit wird bescheinigt, daß der/die/das  
ROLAND MUSIC PRODUCTION SYSTEM MV-30 STUDIO M  
(Gerät. Typ. Bezeichnung)

in Übereinstimmung mit den Bestimmungen der  
Amtsbl. Vfg 1046/1984  
(Amtsblattverfügung)

funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

Roland Corporation Osaka/Japan

Name des Herstellers/Importeurs

For the USA

## RADIO AND TELEVISION INTERFERENCE

**WARNING** — This equipment has been verified to comply with the limits for a Class B computing device, pursuant to Subpart J, of Part 15, of FCC rules. Operation with non-certified or non-verified equipment is likely to result in interference to radio and TV reception.

The equipment described in this manual generates and uses radio frequency energy. If it is not installed and used properly, that is, in strict accordance with our instructions, it may cause interference with radio and television reception. This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J, of Part 15, of FCC Rules. These rules are designed to provide reasonable protection against such a interference in a residential installation. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by the following measure:

- Disconnect other devices and their input/output cables one at a time. If the interference stops, it is caused by either the other device or its I/O cable. These devices usually require Roland designated shielded I/O cables. For Roland devices, you can obtain the proper shielded cable from your dealer. For non Roland devices, contact the manufacturer or dealer for assistance.

If your equipment does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures.

- Turn the TV or radio antenna until the interference stops.
- Move the equipment to one side or the other of the TV or radio.
- Move the equipment farther away from the TV or radio.
- Plug the equipment into an outlet that is on a different circuit than the TV or radio. (That is, make certain the equipment and the radio or television set are on circuits controlled by different circuit breakers or fuses.)
- Consider installing a rooftop television antenna with coaxial cable lead-in between the antenna and TV. If necessary, you should consult your dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet prepared by the Federal Communications Commission:

"How to Identify and Resolve Radio — TV Interference Problems"

This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402. Stock No. 004-000-60345-4.

For Canada

### CLASS B

### NOTICE

This digital apparatus does not exceed the Class B limits for radio noise emissions set out in the Radio Interference Regulations of the Canadian Department of Communications.

### CLASSE B

### AVIS

Cet appareil numérique ne dépasse pas les limites de la classe B au niveau des émissions de bruits radioélectriques fixés dans le Règlement des signaux parasites par le ministère canadien des Communications.

## Introduction

Thank you for purchasing the Roland MV-30 STUDIO M Music Production System. The MV-30 provides the functionality of an entire recording studio in a compact, convenient package.

In order to take full advantage of the MV-30's functions and features, and to enjoy long and trouble-free service, please read this manual carefully. If you are using the MV-30 for the first time, we suggest that you also read the separate introductory guide.

This manual is organized as outlined below. Read each section as required:

<b>Chapter 1</b>	<b>Basic Operation</b>	This chapter explains basic setup and operation of the MV-30.
<b>Chapter 2</b>	<b>Overview</b>	This chapter explains the basic concepts of the MV-30.
<b>Chapter 3</b>	<b>Procedural Guide</b>	This chapter takes you step by step through some of the basic operational procedures.
<b>Chapter 4</b>	<b>Function Reference</b>	This chapter gives a detailed explanation of all functions in each display window.
<b>Chapter 5</b>	<b>Glossary</b>	This chapter explains terms used in connection with the MV-30 and sequencing (listed in alphabetical order).
<b>Chapter 6</b>	<b>Appendix</b>	This chapter contains various supplementary material.

© Copyright 1990 by ROLAND CORPORATION

All rights reserved. No part of this publication may be reproduced in any form without the permission of ROLAND CORPORATION.

\* MS-DOS is a registered trademark of Microsoft Inc, U.S.A.

# FEATURES

---

## Powerful on-board sequencer

- ◆ Eight tracks are provided for the internal sound source, and another eight tracks are provided for controlling external sound sources.
- ◆ If you use only the internal sound source tracks to create music, no knowledge of MIDI is necessary. Simply select a track and a timbre (sound), and play a connected MIDI keyboard to record your music.
- ◆ Each external sound source track can contain the data of MIDI channels 1 — 16.
- ◆ The on-board sequencer can contain up to 20 songs, with a total maximum of approximately 50,000 notes.
- ◆ You can record songs using either realtime or steptime (step) input.
- ◆ Pattern input allows you to create Patterns (containing any number of measures) which can be used as many times as you wish.
- ◆ A wide variety of editing functions are provided, from operations that convert all events of a specified type, to those which allow editing of individual events.
- ◆ As a convenience during editing and data input, you can give names to sections of your song, such as "intro", "first verse", or "solo". (the Rehearsal Mark function)
- ◆ You can use song data that was created using sequencers of the MC series or W-30 workstations, as well as sequencers (SYS series) from S-series samplers.
- ◆ Standard MIDI sequencer files can also be loaded and saved.

## High-quality sound and powerful sound processing capabilities

- ◆ The MV-30 adds TVF (Time Variant Filters) to Roland's RS-PCM sound generating technology which is renowned for its realistic and high-quality sounds.
- ◆ Maximum polyphony of 30 notes.
- ◆ The internal sound source contains 220 realistic and musically useful Tones.
- ◆ The two PCM card slots can accommodate special ROM sound cards designed for the MV-30 (SN-MV30 series). Sound cards from the U series (SN-U110 series) and sound element cards for the D-70 (SN-SPLA series) can also be used.

## Eight Fader Compu-mixer

- ◆ The eight faders on the top panel can be used to adjust the volume, panning (stereo position), or output assignments of the eight internal sound source tracks, or to control the volume or panning of external MIDI sound sources connected to the MV-30. These adjustments can be performed in realtime, as the song progresses.
- ◆ The movement of these physical faders is recorded as the song progresses and can then be "played back" (displayed as screen faders) via the Compu-mix function.

## Digital effects can be applied to the internal timbres

- ◆ The MV-30 contains two on-board digital effects units; reverb/delay and chorus/flanger.
- ◆ The settings for the two effects units can be stored (as one of five Effect Patches) and then selected instantly.
- ◆ Independent effect settings can be made for each track.

## RPS (Realtime Phrase Sequencer) function allows you to trigger Patterns in realtime

- ◆ While playing back a song on the MV-30, you can trigger a previously recorded Pattern simply by pressing a key on your MIDI keyboard. This function has great potential for live performances, since you can play entire phrases by pressing a single key. Or if you have a drum pad that can transmit MIDI note messages, you could play a complicated fill by hitting one pad.

## Tape Sync II allows full synchronization with external devices

- ◆ Roland's new "Tape Sync II" allows sequencer playback to be synchronized with tape, even from the middle of a song. This ability is especially useful for audio/visual production work.

## Three pairs of stereo outputs

- ◆ In addition to the master stereo outputs (which output the sound processed by the on-board effects), two direct stereo output pairs are provided. Since you can assign the output of each track, you can apply external effects to specific tracks.

## Chain Load function allows successive playback of multiple songs

- ◆ The Chain Load function can be used to automatically load and play songs successively. This function is very helpful when the MV-30 is used as an on-stage sequencer.

## Panel layout designed for easy operation

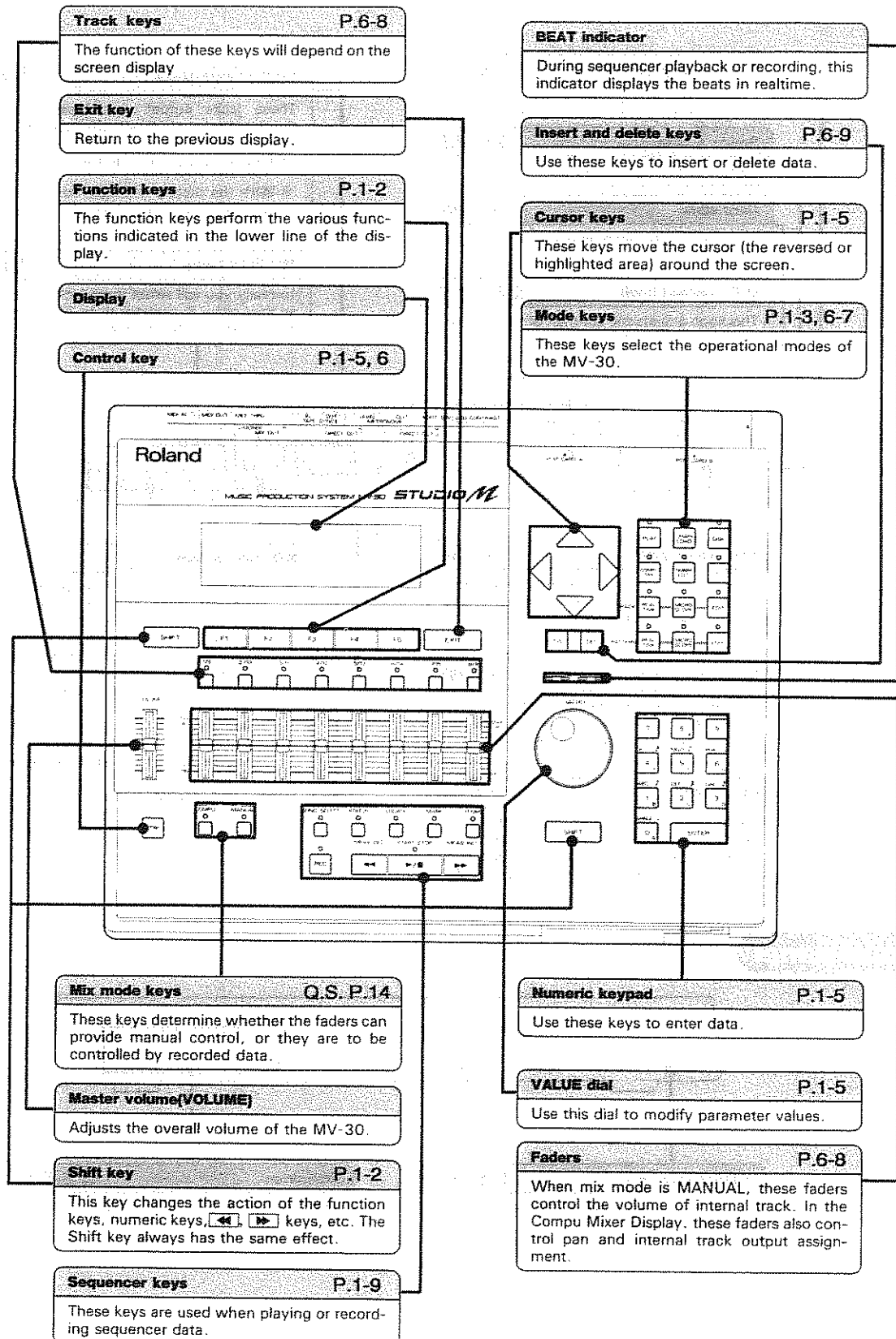
- ◆ The large display gives you all the necessary information at a glance, and the many dedicated function keys allow quick operation.

## Memory expansion

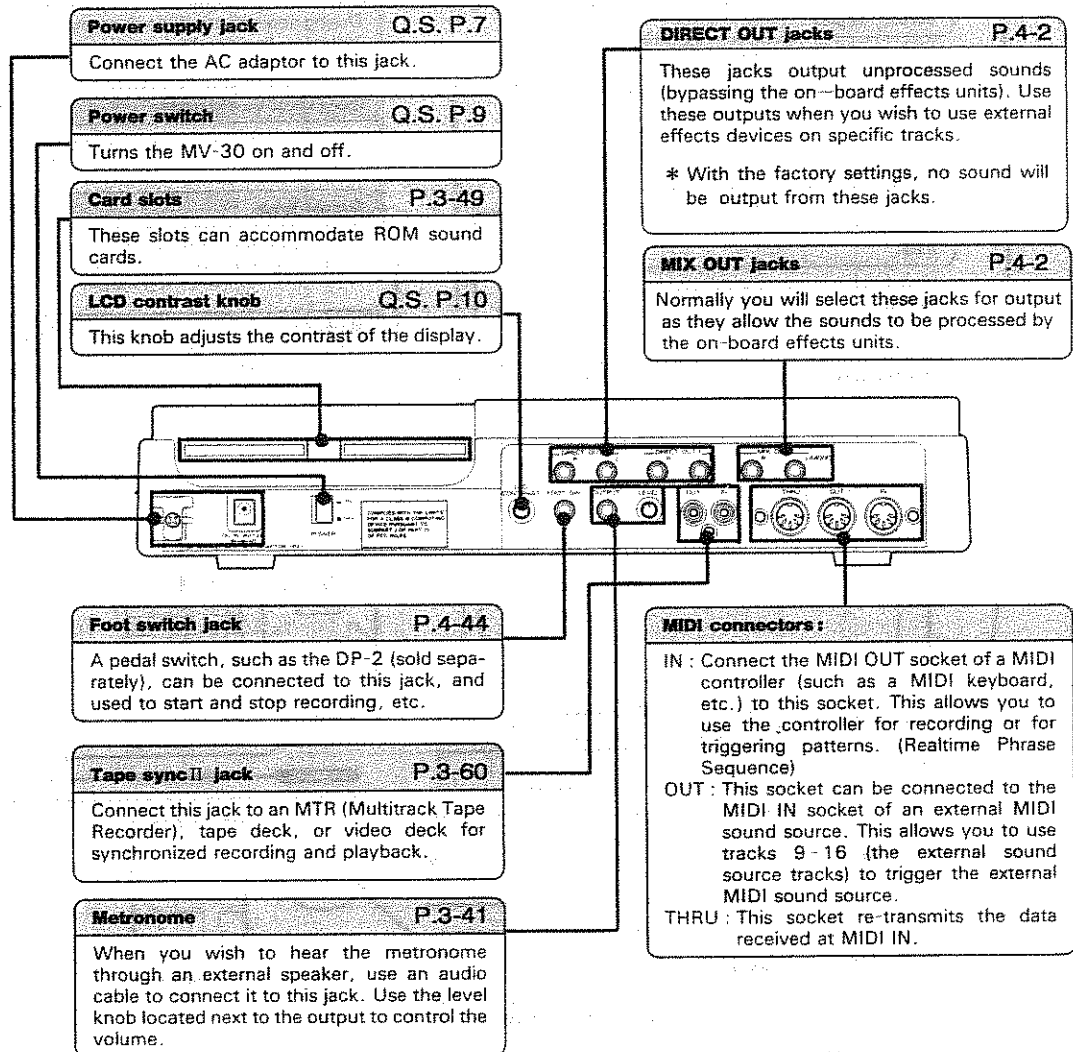
- ◆ It is possible to expand the memory of the MV-30. This will increase the song data capacity to approximately 120,000 notes. (The song data capacity with standard memory is approximately 50,000 notes.) For details, consult your dealer or a nearby Roland Service Station (refer to the list on the back cover).

# TOP, REAR AND FRONT PANEL

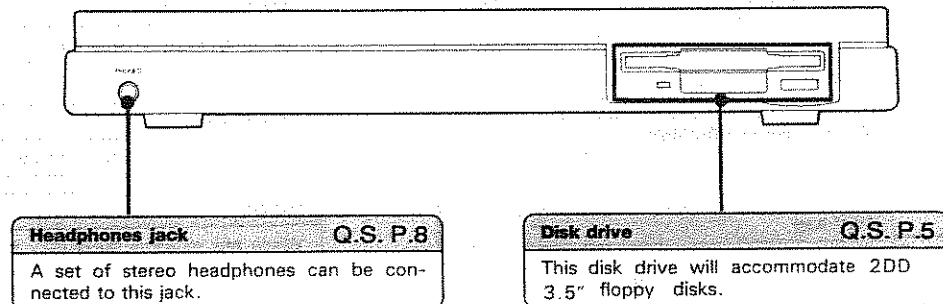
## Top panel



## Rear panel



## Front panel



# TABLE OF CONTENTS

FEATURES .....	Introduction - 4
TOP, REAR AND FRONT PANNEL .....	Introduction - 5

## Chapter 1 Basic Operation

1. THE SCREEN DISPLAY AND FUNCTION KEYS ..	1-2
2. HOW TO MOVE TO OTHER DISPLAY PAGES ..	1-3
3. HOW TO SET VALUES .....	1-5
4. HOW TO PLAY A SONG .....	1-9

## Chapter 2 Overview

1. WHAT IS A SEQUENCER? .....	2-2
2. MV-30 TRACKS .....	2-3
1 Internal sound source tracks and external sound source tracks .....	2-3
2 Other tracks .....	2-4
3 Data location .....	2-4
3. HOW INTERNAL SOUND SOURCE TRACKS CONTROL OTHER FUNCTIONS .....	2-5
4. HOW EXTERNAL SOUND SOURCE TRACKS CONTROL OTHER FUNCTIONS ..	2-7
5. INTERNAL MEMORY AND A DISK .....	2-8

## Chapter 3 Procedural Guide

OVERVIEW OF THE PROCEDURAL GUIDE .....	3-2
1. Play a song .....	3-2
2. Create a song .....	3-3
3. Advanced techniques for creating a song .....	3-4
4. Check the current status .....	3-5
5. RPS (Realtime Phrase Sequence) .....	3-5
6. Edit a Timbre .....	3-6
7. Use external sound source tracks .....	3-6
8. MIDI synchronization .....	3-7
9. Tape Sync II .....	3-7
10. Compatibility with other devices .....	3-7
11. Other .....	3-7
1. PLAY A SONG .....	3-8
2. CREATE A SONG .....	3-14
3. ADVANCED SONG CREATION TECHNIQUES ..	3-28
4. CHECK THE CURRENT STATUS .....	3-42
5. RPS (Realtime Phrase Sequence) .....	3-46
6. EDIT A TIMBRE .....	3-48
7. USE EXTERNAL SOUND SOURCE TRACKS ..	3-56
8. MIDI SYNCHRONIZATION .....	3-57
9. TAPE SYNC II .....	3-60
10. COMPATIBILITY WITH OTHER DEVICES .....	3-68
11. OTHER .....	3-71

## Chapter 4 Function Reference

1. PLAY .....	4-2
2. CHAIN LOAD .....	4-8
3. DISK .....	4-10
4. COMPU MIX .....	4-20
5. TIMBRE EDIT .....	4-23
6. SYSTEM .....	4-44
7. TRACK - REALTIME .....	4-46
8. TRACK - MICROSCOPE .....	4-54
9. TRACK - EDIT .....	4-61
10. PATTERN - REALTIME .....	4-84
11. PATTERN - MICROSCOPE .....	4-88
12. PATTERN - EDIT .....	4-90
13. SEQUENCER .....	4-100

## Chapter 5 Glossary

GLOSSARY .....	5-2
----------------	-----

## Chapter 6 Appendix

1. TROUBLESHOOTING .....	6-2
2. MESSAGES .....	6-4
3. ERROR MESSAGES .....	6-5
4. MODE CHART .....	6-7
5. FUNCTIONS THAT CHANGE OPERATION BY MODE .....	6-8
6. PARAMETER LIST .....	6-10
System configuration parameters .....	6-10
Chain load settings .....	6-10
Disk label .....	6-10
Song parameters .....	6-11
Timbre parameters .....	6-13
7. LIST OF EVENTS .....	6-15
8. LIST OF CLOCK VALUES .....	6-17
9. HOW TO READ PRINTED MUSIC .....	6-18
10. INTERNAL TONE LIST .....	6-19
11. CONTENTS OF THE INCLUDED DISK .....	6-21
Demo songs .....	6-21
List of RPS Demo song .....	6-22
Profiles of the demo song composers .....	6-23
List of Timbre banks .....	6-24
Chain load setting .....	6-24
List of Timbres .....	6-25
Roland Exclusive Messages .....	6-32
MIDI Implementation .....	6-36
MIDI Implementation chart .....	6-39
SPECIFICATIONS .....	6-41

...the first part of the sentence is a complete sentence, and the second part is a complete sentence.

...the first part of the sentence is a complete sentence, and the second part is a complete sentence.

...the first part of the sentence is a complete sentence, and the second part is a complete sentence.

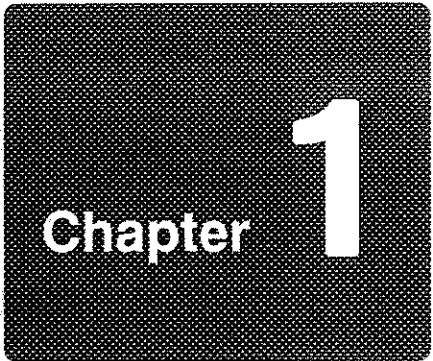
...the first part of the sentence is a complete sentence, and the second part is a complete sentence.

...the first part of the sentence is a complete sentence, and the second part is a complete sentence.

...the first part of the sentence is a complete sentence, and the second part is a complete sentence.

...the first part of the sentence is a complete sentence, and the second part is a complete sentence.

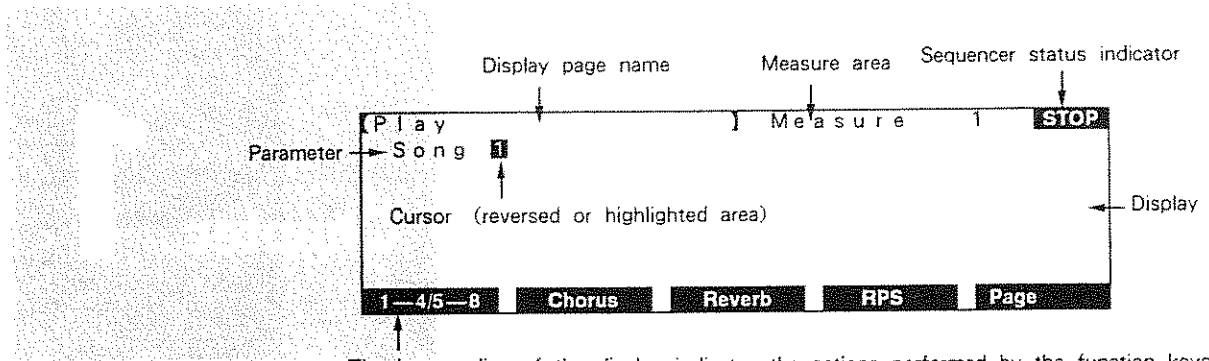




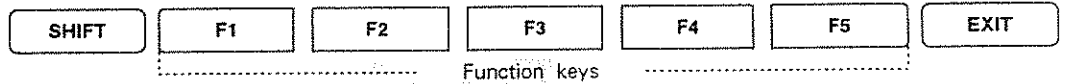
# Basic operation

1. The screen display and function keys...1-2
2. How to move to other display pages...1-3
3. How to set values...1-5
4. How to play a song...1-9

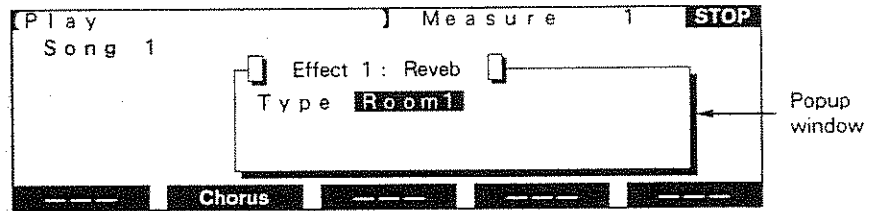
# 1. THE SCREEN DISPLAY AND FUNCTION KEYS



The bottom line of the display indicates the actions performed by the function keys.



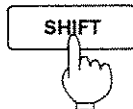
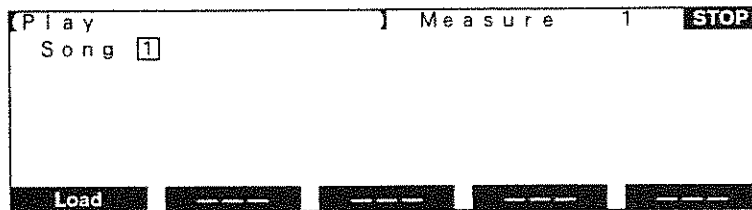
For example, if you press **F3** from this display page, a popup window will appear allowing you to make "Reverb" settings.



When you finish making settings in the popup window, press **EXIT** to close the window.

Function keys are also used to "execute an operation". In this case, the display will read "Are you sure?". If you are sure you want to execute the operation, press the key once again. If you wish to quit without executing, press **EXIT**.

When you press **SHIFT**, the function key assignments will change.

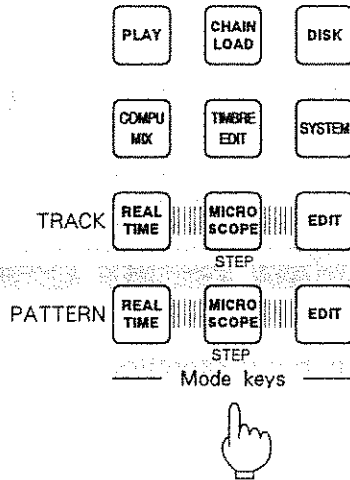


While pressing **SHIFT**, press the appropriate function key.

# 2. HOW TO MOVE TO OTHER DISPLAY PAGES

## Mode keys

Press the desired mode key.

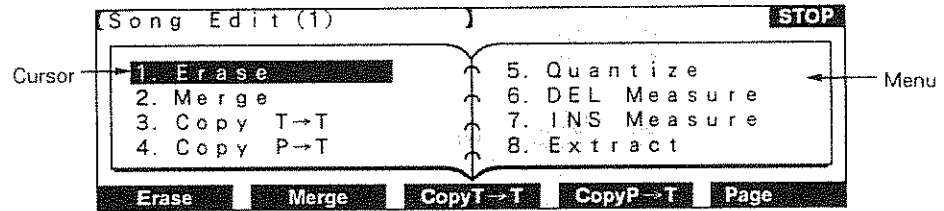


	<b>PLAY</b>	In this mode you can monitor track status, make RPS (realtime phrase sequence) settings, or settings for chorus and reverb.
	<b>CHAIN LOAD</b>	The chain load function automatically loads and plays two or more songs from disk in the specified order. In this mode you can specify the order of the songs and execute playback.
	<b>DISK</b>	In this mode, song data or timbres you create can be saved to, or loaded from floppy disk.
	<b>COMPU MIX</b>	In this mode you can specify the function of the faders, and record fader movements during playback.
	<b>TIMBRE EDIT</b>	In this mode you can edit the 128 internal timbres (and 1 rhythm timbre) used by tracks 1 — 8.
	<b>SYSTEM</b>	In this mode you can make settings related to the overall operation of the MV-30: adjust the master tuning, etc.
<b>TRACK</b>  Use this key to record and edit track data.	<b>REALTIME</b>	Use this key to make track settings, and to record tracks in realtime.
	<b>MICROSCOPE</b>	Use this key to view or modify individual data events in a track, or to record a track in steptime. When editing a Pattern track, this key allows you to assign Patterns to the track.
	<b>EDIT</b>	Use this key to globally edit data in a track.
<b>PATTERN</b>  Use this key to record and edit Patterns.	<b>REALTIME</b>	Use this key to make Pattern settings, and to record patterns in realtime.
	<b>MICROSCOPE</b>	Use this key to view or modify individual data events in a Pattern, or when recording in steptime.
	<b>EDIT</b>	Use this key to globally edit data in a Pattern.

## Menu pages

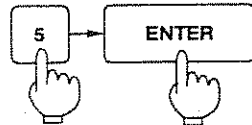
When you press **DISK** or **EDIT**, a menu will appear allowing you to select one of the functions in that mode. The menus occupy two pages.

Press **F5** (Page) to switch pages.



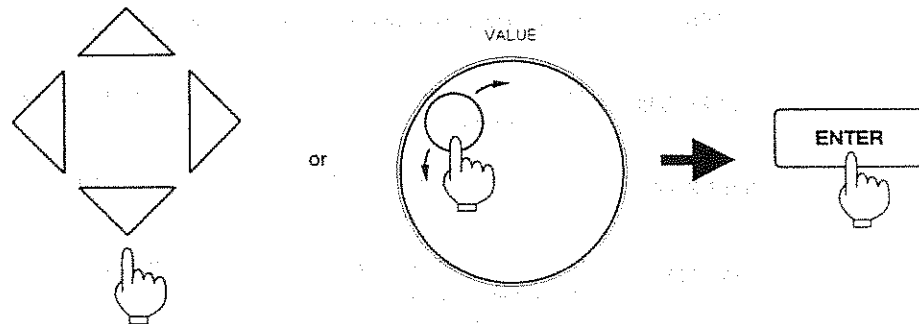
### Using the numeric keys to make a menu selection

Use the numeric keys to enter the menu number.



### Using the cursor keys or the VALUE dial to make a menu selection

Use the cursor keys or the VALUE dial to make a menu selection, and press **ENTER**.



### Using the function keys to make a menu selection

To select menu items 1—4, press **F1**—**F4**. To select menu items 5—8, hold **SHIFT** and press **F1**—**F4**.

### To return to the menu page

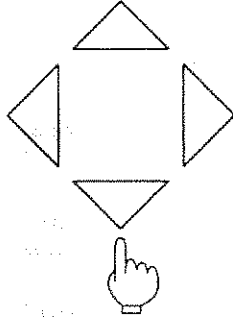
To return to the menu page, press **EXIT**.

# 3. HOW TO SET VALUES

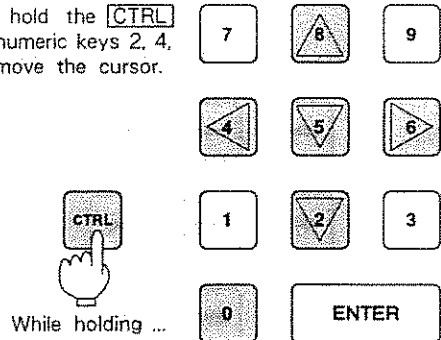
Move the cursor to the value you wish to modify and rotate the VALUE dial or use the numeric keys to enter a value.

## To move the cursor

Use the cursor keys to move the cursor.



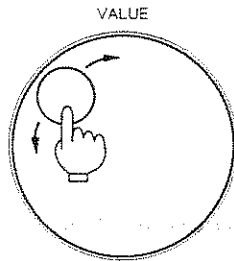
You can also hold the **CTRL** key and press numeric keys 2, 4, 5, 6, or 8 to move the cursor.



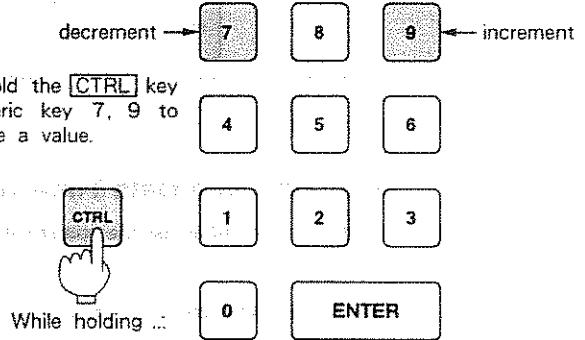
The cursor will return to the home position.

## Using the VALUE dial to select a value

As you rotate the VALUE dial, the entire range of possible values will appear.

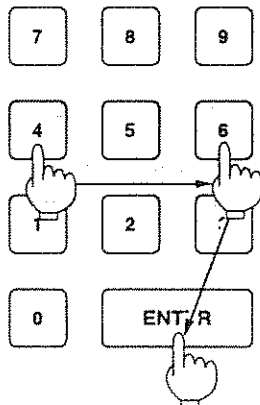


You can also hold the **CTRL** key and press numeric key 7, 9 to decrease/increase a value.



## Using the numeric keys to enter a value

You can also use the numeric keys to enter a value.



For example, to enter "46", you would press **4** → **6** → **ENTER**. After entering the number, you must press **ENTER** to finalize it.

\* To enter a negative number ("−"), hold the **SHIFT** and press the **0**.

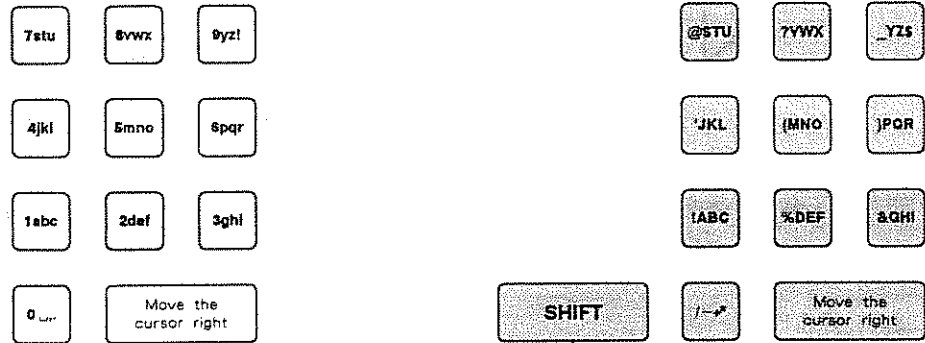
## Special functions of the numeric keys

In some cases, the numeric keys have special functions to let you enter data more efficiently.

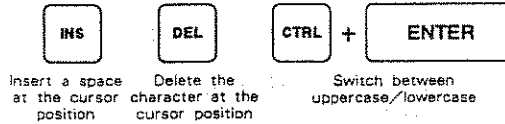
### Name input (Entering a Name)

Here's how to assign a name for a Song, Track, Pattern, Timbre, Disk, Rehearsal Mark, or Timbre Bank.

Each key will enter the character(s) printed at the upper left of the key.



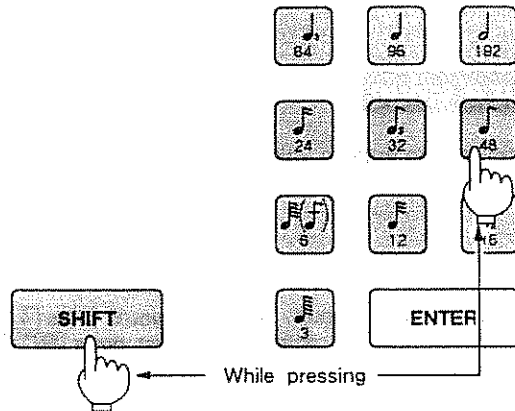
Press the desired key repeatedly until the correct character appears.



### Step Time and Gate Time input

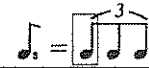
In step time recording, use the numeric keys to enter Step Time and Gate Time.

Each key will select the Step Time (note value) printed at the upper right of each key.



While pressing **SHIFT**, press a numeric key.

For example, if you press **SHIFT** + **6**, the result will be "Step = 48"



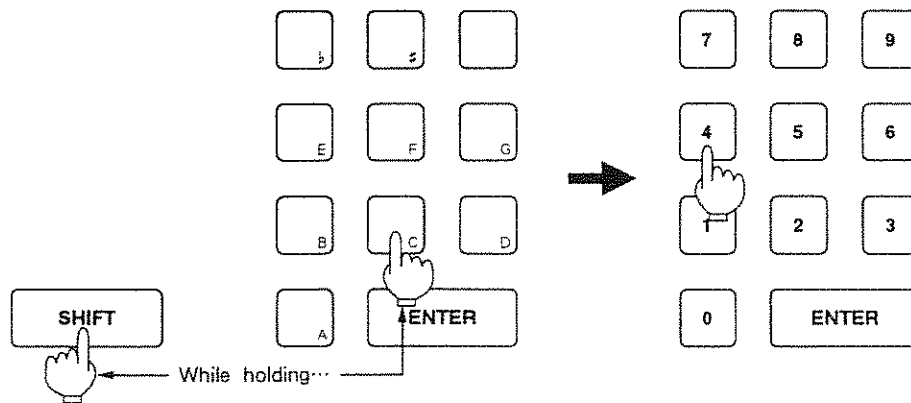
Note value	Step time/key	Note value	Step time/key
○	384	♪	32 [5]
♪	288	♪	36
♪	192 [9]	♪	24 [4]
♪	128	♪	16 [3]
♪	144	♪	18
♪	96 [8]	♪	12 [2]
♪	64 [7]	♪	8
♪	72	♪	6 [1]
♪	48 [6]	♪	3 [0]

\* In step recording, when you press a numeric key to specify the Gate Time, the value will be multiplied by the Gate Time Ratio displayed in the popup window.

### Key name (note number) input

In the Microscope mode, Step Recording mode, or for RPS functions, you can enter note numbers as follows:

Use the numeric keys to enter a key name

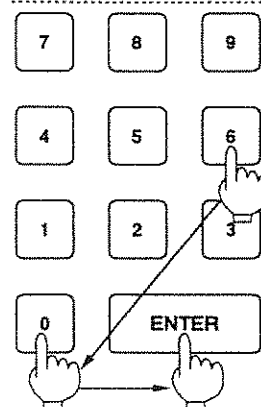


Use the numeric keys to enter a key name C—G9.

While pressing **SHIFT**, enter the key (A—G) and the ♭ or ♯, and then enter the octave number.

For example if you press **SHIFT** + **2** → **4**, the key name will be **C 4(60)**.

key name



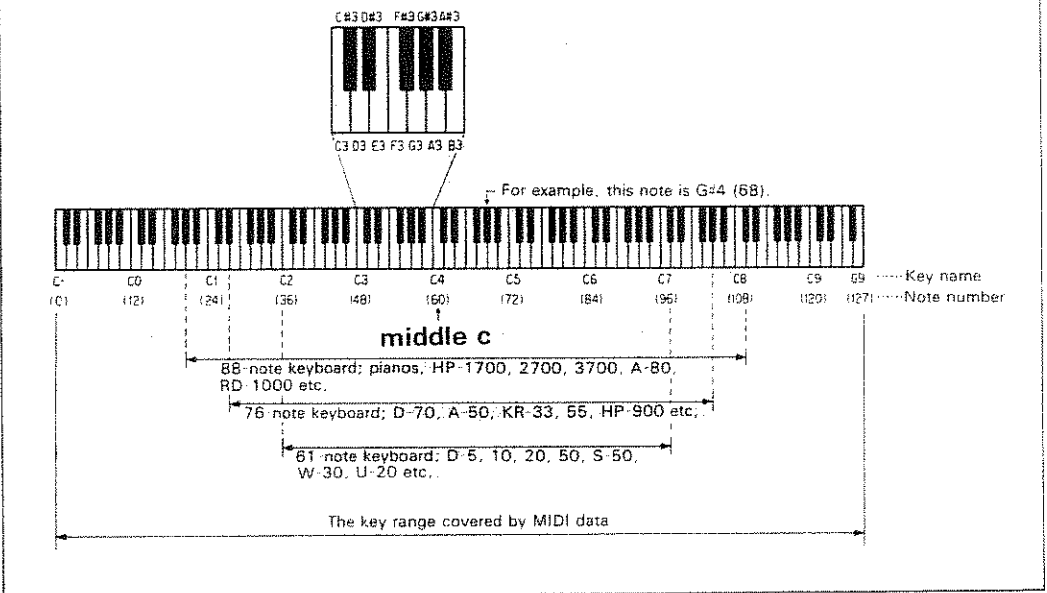
Input a note number (specify a note of the keyboard as a number 0—127).  
Input a number using the usual method for numeric input.

For example if you press **6** → **0** → **ENTER**, the result will be **C 4(60)**.

note number

\* After moving the cursor to the Key Name input area, you can press a numeric key for “Note Number input”, or hold **SHIFT** and press a numeric key for “Key Name input”. If you have begun entering data using one of these methods and then decide to use the other method, you must first move the cursor to another item, and then back again.

Refer to the Note Number (Key Name) chart



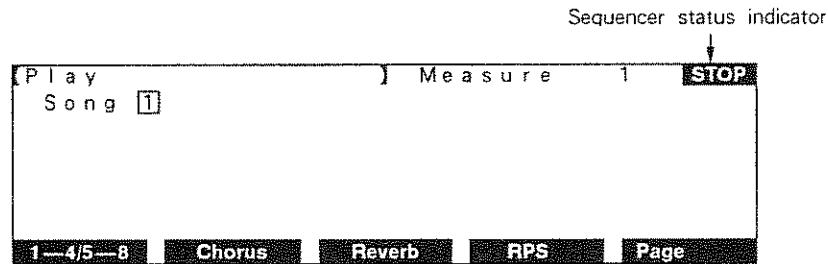


## 4. HOW TO PLAY A SONG

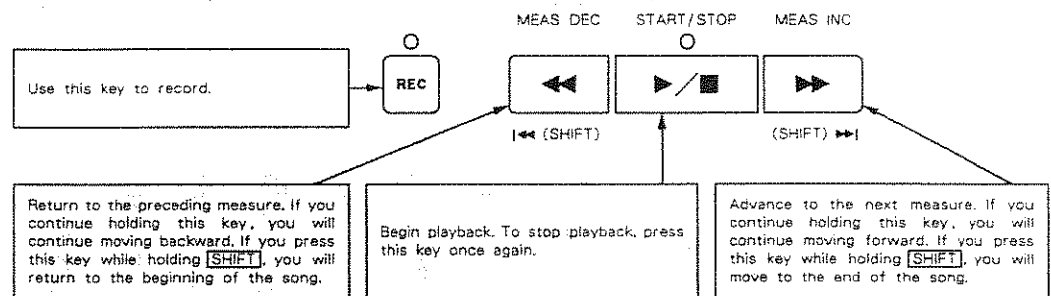
You can start sequencer playback at any time, regardless of which display page you are in. However, it is not possible to playback while a function is being executed, or while the disk is being accessed.

### Play and Stop

The symbol in the upper right corner of the screen displays the sequencer status.



<b>STOP</b>	stopped
<b>PLAY</b>	playing
<b>REC</b>	recording, or in record standby
<b>---</b>	playback is not possible



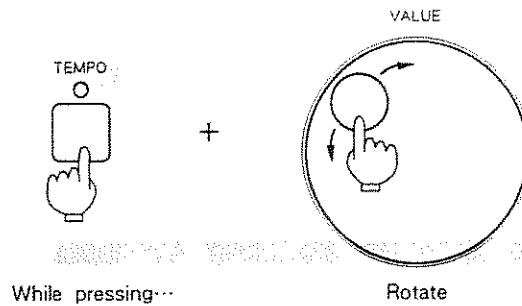
\* The data which is played back will differ depending on the display page you are in (☞ P.6-9).

- When playing back from the middle of the song, first hold **CTRL** and press **▶/■**, then wait until the "MIDI Update" message disappears. Then press **▶/■**. While the "MIDI Update" message is displayed, all data (except note data) will be played back continuously from the beginning of the song up to the point at which playback is to begin. This will ensure that the sound sources will respond correctly if playback begins from the middle of the song.

## Adjusting the tempo

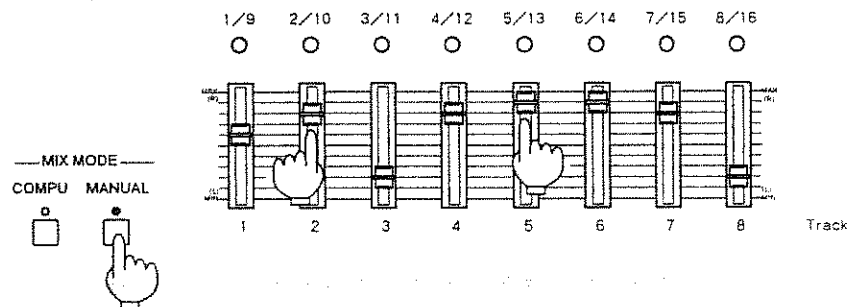
To adjust the tempo, hold **TEMPO** and rotate the VALUE dial.

In pages that display the tempo value, the displayed value will change. In pages that do not display the tempo value, the tempo setting will be briefly displayed in the message area.

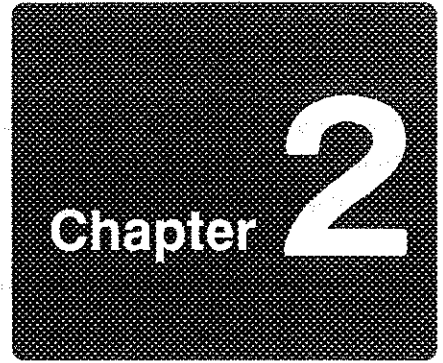


## Using the faders to control the volume of each track

Press the MIX MODE **MANUAL** key and then move the faders. The movements of the faders can be recorded (☞ P.3-25).



\*If the **[Compu Mixer]** page is displayed when you press **COMPU MIX**, press **F1** to display "INT Level" in the message area, and then continue with the above operations.



# Overview

1. What is a sequencer? •••2-2
2. MV-30 tracks •••2-3
3. How internal sound source tracks control other functions •••2-5
4. How external sound source tracks control other functions •••2-7
5. Internal memory and a disk •••2-8

# 1. WHAT IS A SEQUENCER?

---

The MV-30 has a built-in "sequencer" which allows you to record music in the same way as with a multitrack tape recorder (MTR).

Just as when using an MTR, you can use a different track to record each part of the music (bass, drums, piano etc.). Then you can use the MV-30's top panel sliders to adjust the volume or pan of the tracks during playback, and record these adjustments as well.

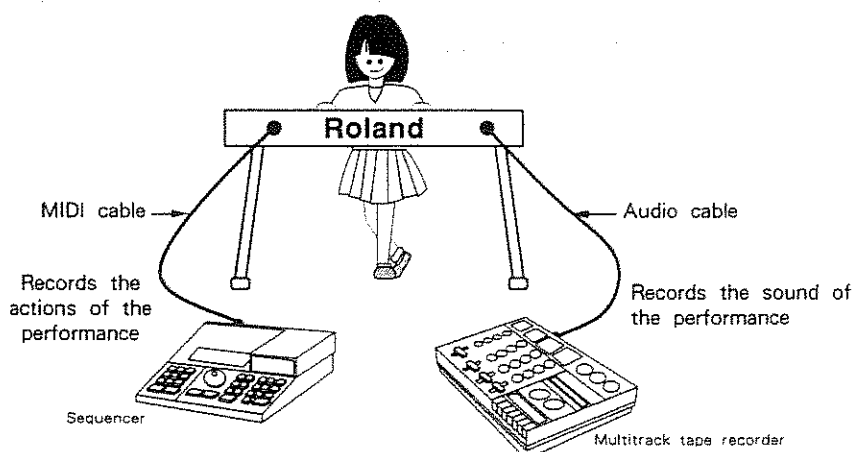
Although they are used in similar ways, sequencers differ from multitrack tape recorders in some important areas.

## An MTR...

is a device that records "the sounds an instrument produces". When the MTR is played back, the recorded sound is played back.

## A sequencer...

is a device that records "the actions the musician performed". It records data that tells "which notes were played when, how strongly and how long", or "which sounds were selected when". When the sequencer is played back, the sequencer, instead of the musician, plays the instrument.



Sequencers have the following advantages over MTRs:

- The sound quality is not affected no matter how many times you re-record.
- Mistakes can be corrected easily. You can even correct individual notes of a chord.
- There is no crosstalk (the leakage of sound from one track into another).
- You can jump (fast forward or rewind) instantly to any point in the song.
- The playback tempo can be changed without affecting the pitch.
- Sounds can be changed during playback.
- The recorded data can be edited at any time.

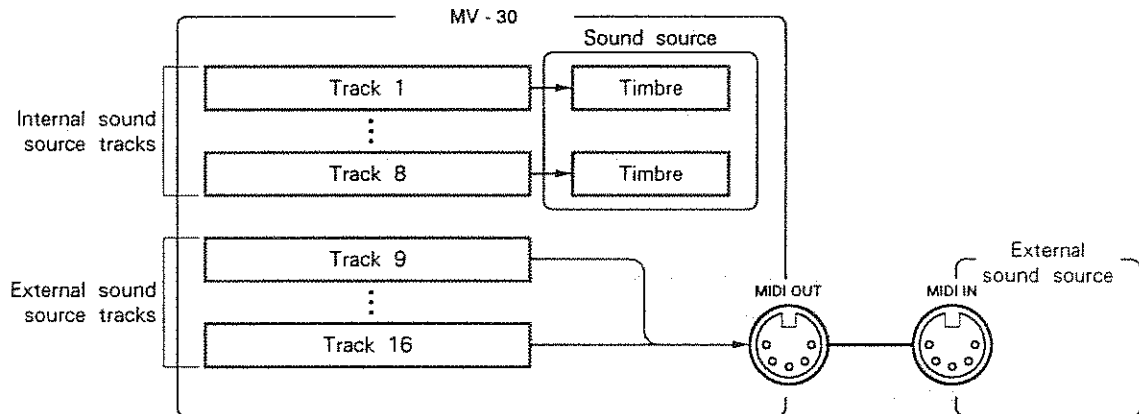
However, since sequencers do not record sound itself, they cannot record vocals or acoustic instruments.

Since the MV-30 includes a tape sync II function, it can playback in synchronization with an MTR. In this way, you can create music taking advantage of both sequencers and MTRs.

## 2. MV-30 TRACKS

### 1 Internal sound source tracks and external sound source tracks

The MV-30 contains sixteen tracks on which to record music. Tracks 1—8 are used to play the sound sources built into the MV-30. Tracks 9—16 are used to play external MIDI sound sources.



### Track types

When recording, you can set each of the sixteen tracks to be either a "standard-type track" or a "pattern-type track".

A standard-type track

Musical data is recorded directly into the track

A pattern-type track

Pattern

The track contains references (Pattern call events) to individual Patterns you have created

- \* It is not possible to directly record musical data into a Pattern-type track.
- \* You can create Patterns in a standard-type track, but cannot play them from the track. There are two ways to use Patterns in a standard-type track.
  - ① For use with the RPS (realtime phrase sequence) function (☞ P.3-46).
  - ② As a place to temporarily store data (☞ P.3-39).
- \* You can convert a pattern-type track into a standard-type track (☞ P.3-39).

## 2 Other tracks

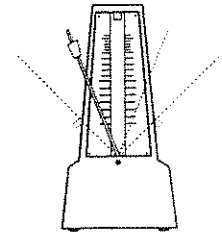
In addition to the sixteen tracks used to record musical data, the MV-30 has a "Tempo track" and a "Mixer track".

### Tempo track (T)

This track controls tempo changes.

Tempo changes are expressed as variations on the standard tempo. This means that by adjusting the standard tempo, you can adjust the overall tempo of an entire song.

\*Tempo changes must be recorded in steptime: they cannot be recorded in realtime (⇐ P.3-32).



Tempo = 60  
(sixty beats per minute)

### Mixer track (M)

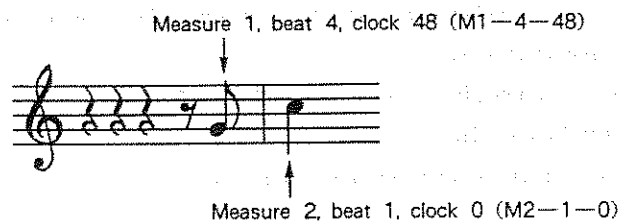
This track controls the compu mixer in the following ways:

- Adjusts the volume (output level) of each internal sound source track.
- Adjusts the stereo position (pan) of each internal sound source track.
- Selects the output (output assignment) of each internal sound source track.
- Transmits volume messages (control change #7) from MIDI OUT on each MIDI channel.
- Transmits pan messages (control change #10) from MIDI OUT on each MIDI channel.
- Selects Effect Patches.

When you record this data in the [Compu Mixer] page, the data will be written into the mixer track (⇐ P.4-20).

## 3 Data location

The MV-30's sequencer records the location of each data event with a precision of 1/96th of a quarter note. This unit of time is called a "clock". The location of data in a song is expressed in measures, beats, and clocks. The beginning of the song is measure 1, beat 1, clock 0.



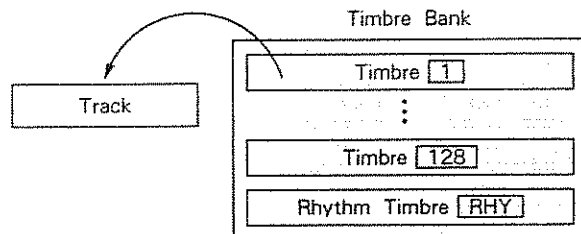
\* This method of specifying data location differs from some other sequencers which express data location as a distance relative to the previous note. Inserting or deleting a data event in the MV-30 sequencer will not cause the following data to move forward or backward.

The location of all data (not only note data) in the MV-30 sequencer is managed in this way.

# 3. HOW INTERNAL SOUND SOURCE TRACKS CONTROL OTHER FUNCTIONS

## Sounds (Timbres) played by internal sound source tracks (1—8)

The sounds played by tracks 1—8 are called "Timbres". You can select Timbres from the Timbre Bank (128 Timbres and 1 Rhythm Timbre).

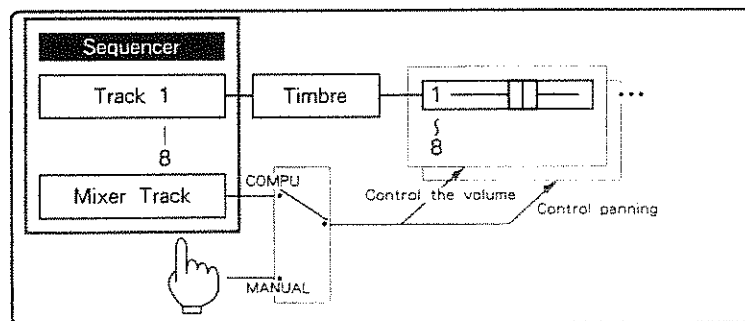


\* The Rhythm Timbre produces a different percussion sound for each key of the keyboard.

It is not possible to simultaneously play two or more timbres from one internal sound source track, but you can switch timbres in the middle of a song (⇨ P.3-29).

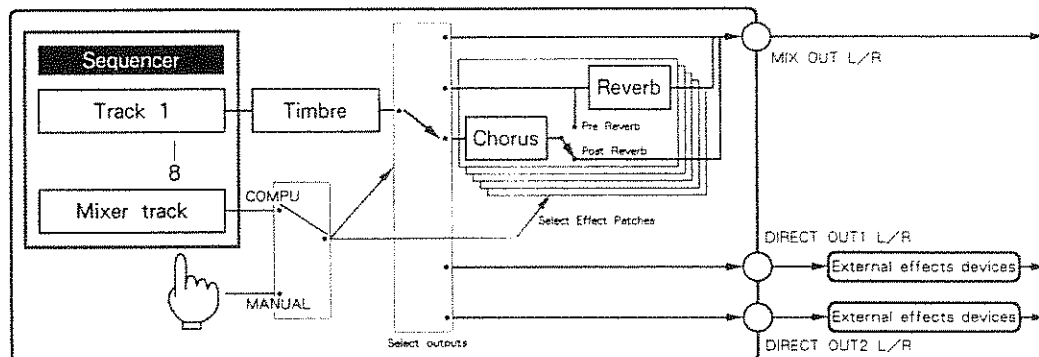
## Internal sound source tracks : Volume and Pan

You can use the compu mixer faders to adjust the volume and pan (stereo position) of each track.



## Internal sound source tracks : Effects and Output

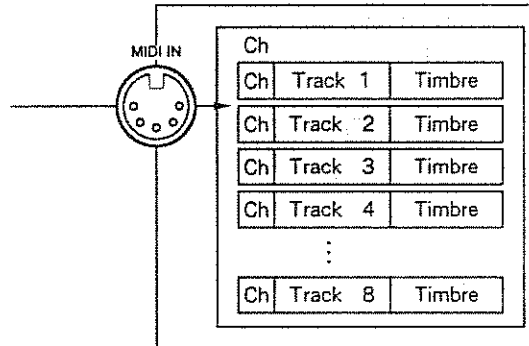
The MV-30 contains two effect units; a chorus unit and a reverb unit. Five different settings (Effect Patches) for these effect units can be saved for each song, and can be changed in the middle of a song (⇨ P.3-30). You can specify the output independently for each track, and can also change the assignment during the song (⇨ P.3-31).



\* If you have selected Chorus as the output, some effect settings allow you to apply Reverb in addition (Out ⇨ P.4-4).

## MIDI IN and the Internal Sound Source

In the **[Play]**, **[Realtime Phrase SEQ]** and **[Chain Load]** pages, MIDI messages can be received at MIDI IN to play the internal sound source of the MV-30 as a multi-timbral sound source. Specify a receive channel (see P.3-72) for each of the internal sound source tracks. Each incoming channel of MIDI messages will play the Timbre of the track with the corresponding receive channel.





# 4. HOW EXTERNAL SOUND SOURCE TRACKS CONTROL OTHER FUNCTIONS

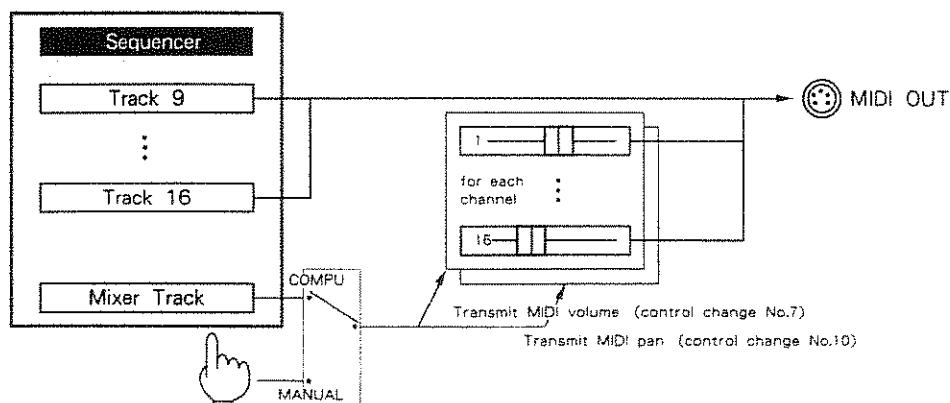
## How these tracks differ from internal sound source tracks

External sound source tracks 9—16 transmit MIDI messages from the MIDI OUT socket. These tracks differ from internal sound source tracks 1—8 in that each piece of data in tracks 9—16 has its own MIDI channel number 1—16. This means that each one of tracks 9—16 can contain independent data for MIDI channels 1—16.

\*It is also possible to send external sound source track data to the internal sound sources. In this case, you will need to specify the receive channel for each internal sound source track (☞ P.3-56).

## MIDI output

Data from the external sound source tracks and external data from the compu mixer is transmitted from MIDI OUT. (Data from the internal sound source tracks is not transmitted from MIDI OUT.)



# 5. INTERNAL MEMORY AND A DISK

## Capacity of internal memory and a floppy disk

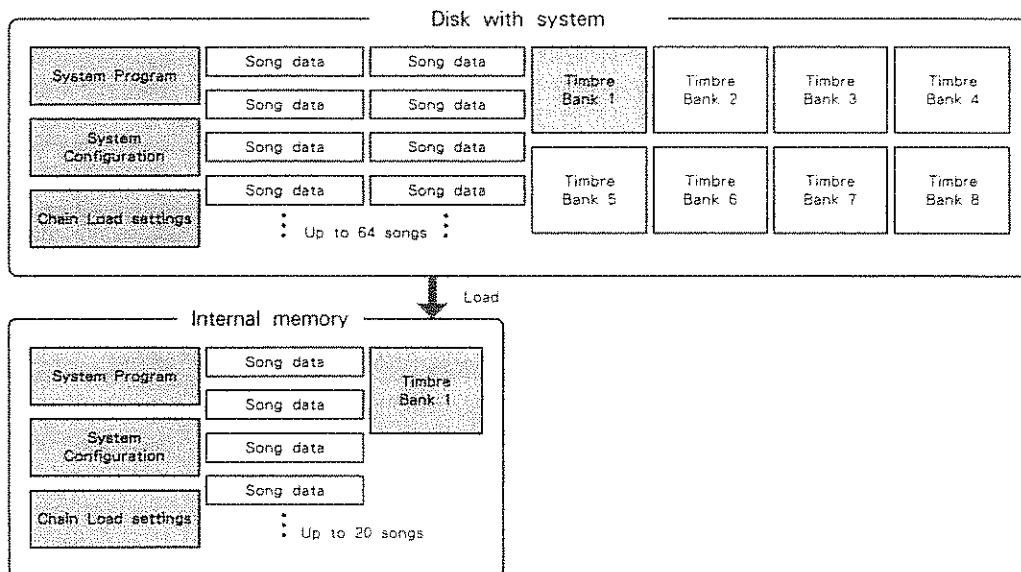
The internal memory and the disk can contain the following amounts of data:

	Internal memory		Disk with system	Disk without system
System Program	1	load only	1	-
System Configuration	1	load or save	1	-
Chain Load settings	1		1	1
Song data	Up to 20 songs, total approximately 50,000 notes *, **		Up to 64 songs, total approximately 70,000 notes *	Up to 64 songs, total approximately 100,000 notes *
Timbre	1 bank (128 Timbres + 1 Rhythm Timbre)		8 banks	8 banks
Tone	INT1 : 108 INT2 : 84 INT3 : 28	ROM	-	-

- \* One line in Microscope mode is counted as one note.
- \*\* It is possible to expand the Internal memory. This will increase the song data capacity to approximately 120,000 notes. For details, consult your dealer or a near by Roland Service Station. (refer to the list on the back cover). When memory is expanded, one song can contain a maximum of approximately 100,000 notes.

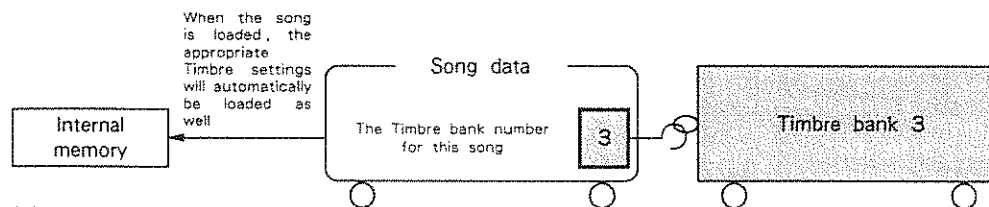
**Data loaded when the system is started up**

When the system is started up, it automatically loads the "system program" (to make the MV-30 function), and also the "system configuration" (settings for the overall system), "Timbre Bank 1", and "Chain Load settings".



**Song data and Timbre banks**

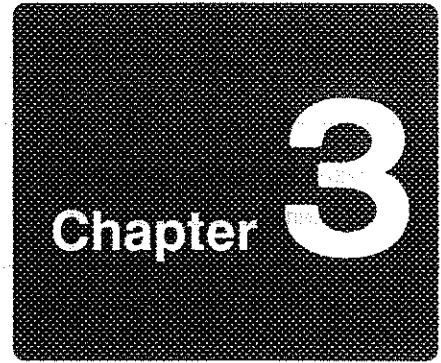
When you create a song, you can also edit the sounds (Timbres) used by that song (⇐P.3-48). Normally when you save a song to disk, the Timbre settings in memory will also be saved. At this time, you can specify the disk bank into which the Timbres will be saved. This will be the Timbre bank paired with that song. Next time you load the song, that Timbre bank will automatically be loaded.



---

CONSTRUCTION SCHEDULE

CONSTRUCTION SCHEDULE



# Procedural Guide

This chapter takes you step by step through some of the basic operational procedures of the MV-30.

- Overview of the procedural guide...3-2
  - 1. Play a song...3-8
  - 2. Create a song...3-14
- 3. Advanced Song creation techniques...3-28
  - 4. Check the current status...3-42
- 5. RPS (Realtime Phrase Sequence)...3-46
  - 6. Edit a Timbre...3-48
- 7. Use external sound source tracks...3-56
  - 8. MIDI synchronization...3-57
  - 9. Tape Sync II ...3-60
- 10. Compatibility with other devices...3-68
  - 11. Other...3-71

————— How to read this chapter —————

**F1** FD Load

Press **F1** (FD Load)

**SHIFT** + **F1** Load

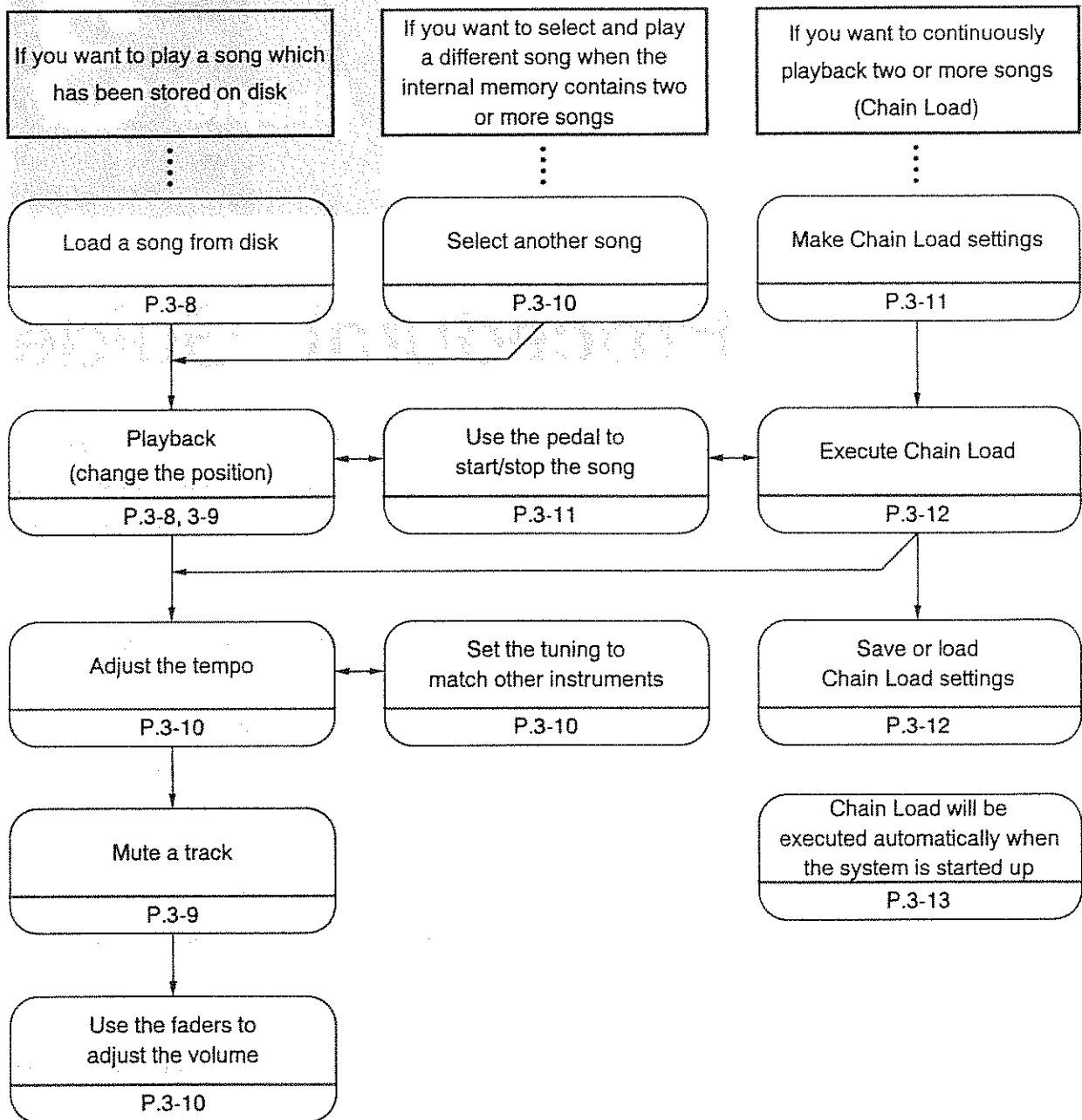
Hold **SHIFT** and press **F1**

Master Tune

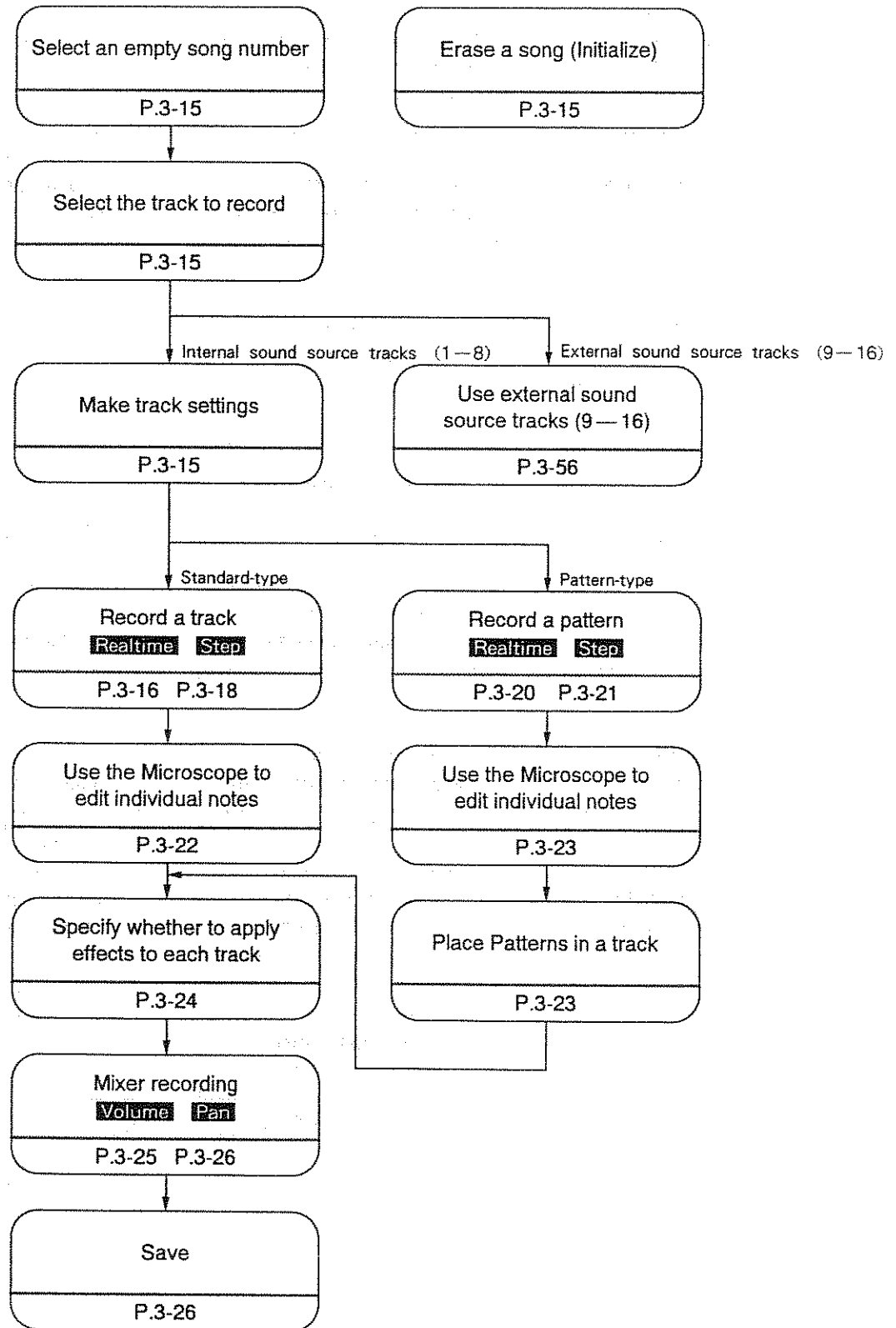
Move the cursor to the Master Tune display

# OVERVIEW OF THE PROCEDURAL GUIDE

## 1. Play a song



## 2. Create a song



### 3. Advanced techniques for creating a song

Re-record a section of a song (Punch In/Out) P.3-28	Change the Timbre played by a track in the middle of a song P.3-29	Change the Effect Patch in the middle of a song P.3-30
Apply internal or external effects to a track (specify the output) P.3-31	Change the output of a track in the middle of the song P.3-31	Apply effects to specific sounds of the Rhythm Timbre P.3-32
Change the tempo in the middle of the song P.3-32	Avoid recording unnecessary data P.3-32	Copy data P.3-32
Delete measures, or insert blank measures P.3-33, P.3-34	Move the location of data P.3-34	Erase data P.3-35
Transpose P.3-35	Correct the timing of note data (Quantize) P.3-36	"lay back" or "push" the rhythmic timing P.3-37
Make notes more tenuto or staccato P.3-37	Rearrange the key assignments of rhythm data P.3-37	Thin out mixer track data to conserve memory P.3-39
Increase or decrease the overall velocity of notes P.3-38	Set all notes to the same velocity P.3-38	Convert pattern-type tracks to standard-type tracks P.3-39
Assign rehearsal marks for intro, fill-in, etc. P.3-40	Adjust metronome settings and output P.3-40, P.3-41	Use a Pattern to temporarily store data P.3-39
		Prevent notes from dropping out of the melody P.3-41



## 4. Check the current status

Check the size of a song  
P.3-42

Check the amount of remaining internal memory  
P.3-42

Check the amount of song data on disk  
P.3-42

Check the amount of remaining disk memory  
P.3-42

Check the names of Timbres on disk  
P.3-43

Check whether or not tracks contain data  
P.3-43

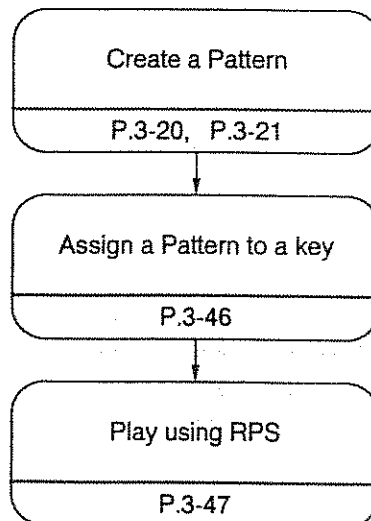
Check the tempo from a page that has no tempo display  
P.3-44

Check the time signature (beat)  
P.3-44

Check the Timbre being played by each track  
P.3-44

Check the type of each track  
P.3-45

## 5. RPS (Realtime Phrase Sequence)



## 6. Edit a Timbre

Adjust the pitch

P.3-50

Adjust the pitch in chromatic steps

Make fine pitch adjustments

Detune the pitch the instant the key is pressed

Adjust the amount of detune

Use the pitch bender to change the pitch

Use keyboard pressure to change the pitch

Add "vibrato"

Use the modulation lever to add "vibrato"

Adjust the tone

P.3-51

Make the sound thicker

Make the sound thinner

Make the sound more distinctive

Make higher notes brighter

Use keyboard pressure to change the tone

Specify how the tone will change while you hold the note

Add "growl"

Use the modulation lever to add "growl"

Make the sound begin with a brighter sound

Make louder sounds brighter

Adjust the volume

P.3-53

Adjust the volume

Make the volume louder for strongly played notes

Use keyboard pressure to increase the volume

Make the attack sharper for strongly played notes

Add "tremolo"

Use the modulation lever to add "tremolo"

While editing a Timbre, check how effects are applied

P.3-54

Copy a Timbre

P.3-54

Re-arrange the order of Timbres

P.3-54

Load an individual Timbre or Rhythm Timbre from disk

P.3-54

Change the key assignment of the Rhythm Timbre

P.3-55

Specify whether or not to apply effects to each key of the Rhythm Timbre

P.3-55

## 7. Use external sound source tracks

Make the MV-30 determine the MIDI channel on which incoming data is recorded

P.3-56

Use the external sound source tracks to play internal sound sources

P.3-56

Edit the data of an external sound source track

P.3-56

## 8. MIDI synchronization

Make another sequencer playback in synchronization with the MV-30

P.3-57

Make the MV-30 playback in synchronization with another sequencer

P.3-58

Perform synchronized recording of the data from another sequencer

P.3-59

## 9. Tape Sync II

Synchronize to an MTR (multitrack tape recorder)

P.3-60

Synchronize to a stereo cassette recorder

P.3-62

Synchronize to a VTR (video tape recorder) to add sound effects

P.3-64

Edit synchronized song data

P.3-66

## 10. Compatibility with other devices

Compatibility with the W-30

P.3-68

Compatibility with MRC series units

P.3-68

Compatibility with SYS series units

P.3-68

Compatibility with standard MIDI files

P.3-69

Load an MRC song created for the MT-32 into the MV-30 to play the MV-30's internal sound

P.3-70

## 11. Other

Delete a song from disk

P.3-71

Format and copy a disk

P.3-71

Use another sequencer to play the MV-30's internal sound source

P.3-72

Save the System Configuration settings

P.3-72

# 1. PLAY A SONG

## Load a song from disk

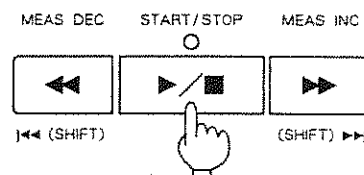
- ① Insert the disk which contains the song into the disk drive.
- ② **DISK** The **【Disk Menu(1)】** page will appear.
- ③ **F1** LD Song The **【Load Song】** page will appear.
- ④ **[ ]>** Select the internal song number into which the song will be loaded.
- ⑤ **-->** Use the VALUE dial to select the song to load from disk.
- ⑥ **F1** Load Load the song and the Timbre Bank paired with that song.  
If data already exists in the song number you have specified as the loading destination, a popup window will ask "Are you sure?".
- ⑦ **F1** Load Execute loading.  
When loading is completed, the screen will read "Complete".

It is also possible to load a song while in the **【Play】** page.

- ① Insert the disk which contains the song into the disk drive.
- ② **SHIFT** + **F1** Load The Load Song window will open.
- ③ Load Song **[ ]**: Select the song number into which the data will be loaded.
- ④ **-->** Use the VALUE dial to select the song to load from disk.
- ⑤ **F1** Load Load the song and the Timbre Bank paired with that song.
- ⑥ **F1** Load Execute loading.  
When loading is completed, the screen will read "Complete".

## Play

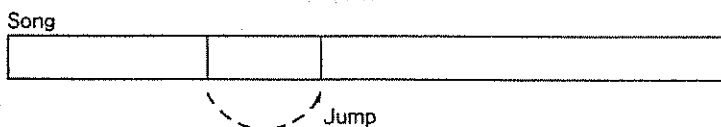
- ① **▶/■** Begin playback.
- ② **▶/■** Stop playback.



\* Depending on the display page, this key may play a Track or Pattern (☞ P.6-9).

## Change the position (Jump)

You can change position (Jump) in the following ways.



- ◀◀** Move back to the previous measure
- ▶▶** Advance to the next measure
- SHIFT** + **◀◀** Move back to the beginning of the song (measure 1 beat 1)
- SHIFT** + **▶▶** Advance to the end of the song (the beginning of the measure following the last measure)

From the [Compu Mixer] or [Realtime REC] pages, you can use the numeric keys to specify the measure.

- ① [COMPU MIX] The [Compu Mixer] page will appear.
- TRACK [REALTIME] The [Realtime REC] page will appear.
- ② M= Select the measure number.

You can press [STATUS] and use the numeric keys to specify the measure.

- ① [STATUS] The Sequencer Status window will open.
- ② Meas Select the measure number.

### Playback from the middle of the song

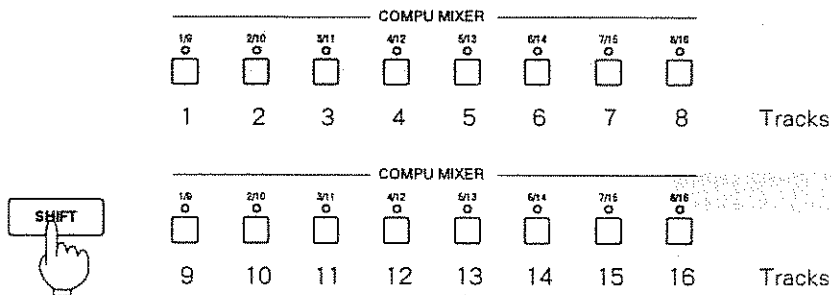
To playback from the middle of a song, use the following procedure. All non-note events from the beginning of the song to the current location will be transmitted in rapid succession, ensuring that the sound source will be in the correct state to playback.

- ① Jump to the location you wish to playback from (⇐ previous page).
- ② [CTRL] + [▶/■] Wait for the "MIDI Update" display to disappear.
- ③ [▶/■] Begin playback.

### Mute the notes of a track

- ① [PLAY] The [Play] page will appear.  
In addition to the [Realtime Phrase SEQ], [Chain Load], [System Config] and [Realtime REC] pages, you can also perform this muting operation from each page of [DISK] or TRACK [EDIT]. In other pages, the track keys perform other functions (⇐ P.6-8).

Tracks whose track key LEDs are lit green contain data, and are ready for playback. While you press [SHIFT], the track keys will select tracks 9—16.



- ② Press a track key whose LED is lit green.  
The LED will go off, and that track will be muted (transmission will be halted for note data only).

## Use the faders to adjust the volume

- ① Use the master fader (the VOLUME fader) to adjust the overall volume.

Use each of the track faders to adjust the volume of internal sound source tracks.

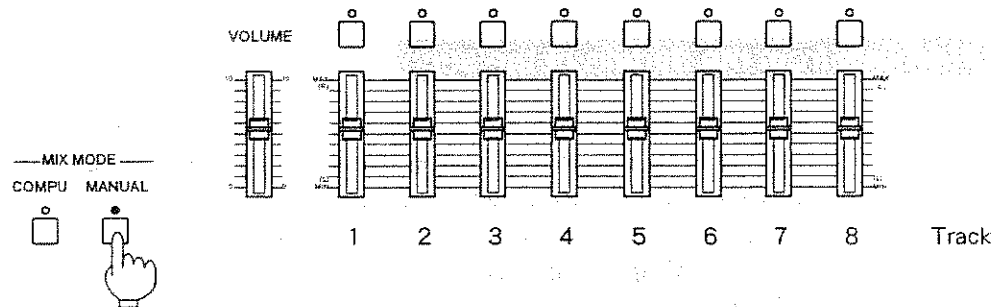
- ② **MANUAL**

The mixer will be in Manual mode.

If you are in the **[Compu Mixer]** page, press **[F1] INT Lvl** to move to the volume adjustment page.

In pages other than **[Compu Mixer]**, the faders will always adjust the volume of the internal sound source tracks.

- ③ Move the fader of the track you wish to control.



## Adjust the tempo

- ① While pressing **TEMPO**, rotate the VALUE dial.

The standard tempo will change.

## Adjust the tuning to other instruments

To adjust the overall tuning of the MV-30, use the following procedure.

- ① **SYSTEM**

The **[System Config]** page will appear.

- ② Master Tune

Specify the frequency of A4 (middle A).

## Select another song

- ① **SONG SELECT**

A popup window will open.

- ② Use the VALUE dial to select the song number.

If the Timbres paired with the selected song have not been loaded into internal memory, a popup window will open to indicate the number of the Timbre Bank that was paired with the song data. If you wish, press **[F1] Load** to load the Timbre Bank. If you do so, be aware that the Timbres in internal memory will be lost.

- ③ **EXIT**

The popup window will close.

You can also select another song from the **[Play]** page.


- ① **PLAY**

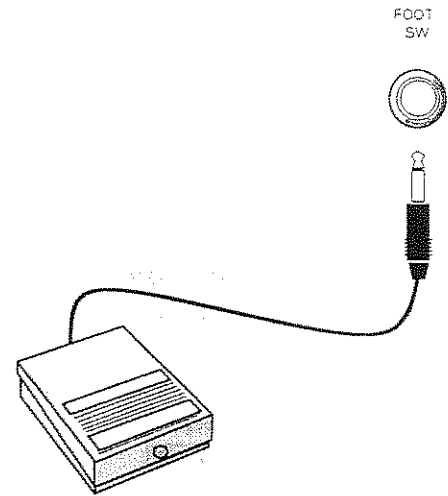
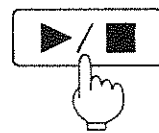
The **[Play]** page will appear.

- ② Song

Use the VALUE dial to select a song number.

## Use a pedal to start/stop the song

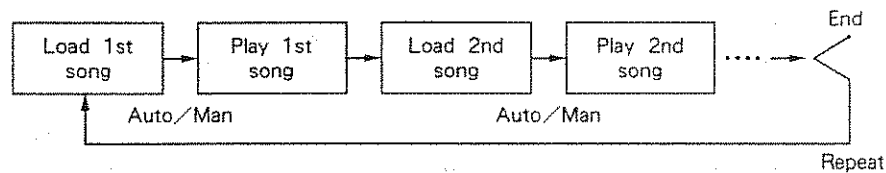
- ① Connect a foot pedal (DP-2 etc., sold separately) to the rear panel FOOT SW jack.
- ② **SYSTEM** The **[System Config]** page will appear.
- ③ Pedal Assign Select "Start/Stop".  
Now you can press the pedal instead of pressing .



Pedal switch  
(DP-2, BOSS FS-5U, etc.)

## Continuous playback of two or more songs (Chain Load)

The Chain Load function loads a song from disk along with its Timbre Bank, and plays the song. When playback ends, it loads the next song with its Timbre Bank and plays it. These steps will be repeated for up to 99 songs in the order you specify.





### Make settings for Chain Load

The songs will be successively loaded into the song number selected in the **[Play]** page.

- ① Insert an MV-30 disk containing data into the MV-30's disk drive.
- ② **CHAIN LOAD** The **[Chain Load]** page will appear.

Step	Song Name	Start
1	XX-TOWN by M. Shinoda	Auto
2	LifeCycle by M. Sanders	Auto
3	Above&Beyond by L. Garcia	Auto
4	ShuffleUpAGas by A. Scott	Auto
5	Russian Circus by A. Bhatia	Auto
LoadSet SaveSet --- --- ---		

This page will not appear unless a disk is inserted into the disk drive.

- ③ Song Name Use the VALUE dial to select one of the song names from the disk.
- ④ Start Specify how the song will be started.  
Auto → After the song has been loaded, playback will begin automatically.  
Man → After the song has been loaded, the MV-30 will wait for you to press  to begin playback.
- ⑤  Move the cursor to the next line.

- ⑥ **INS** Insert a line in front of the currently selected line.
- Repeat steps ③—⑥ to create a list of songs for the Chain Load function.
- To delete a song from the list, move the cursor to that line and press **DEL**.
- ⑦ Last line Specify whether or not the entire chain is to be repeated.
- END** → After the last song has ended, chain playback will end.
- Repeat** → After the last song has ended, chain playback will begin again from the first song in the chain.
- This completes Chain Load settings.

## Execute Chain Load

From the **[Chain Load]** page, press **▶/■** to execute Chain Load.

- ① Move the cursor to the first line of the song chain list.
- If you want to play the chain from the middle, move the cursor to the song from which you want playback to begin.
- ② **▶/■** The song at the cursor position will be loaded.
- If the “Start” setting of that song is “Auto”, playback will begin automatically.
- If the “Start” setting of that song is “Man”, the MV-30 will wait for you to press **▶/■**, and then begin playback.
- When each song finishes playing back, the next song will be loaded automatically. When the end of the last song is reached, chain playback will end if the last line is “END”, or will continue repeating if the last line is “Repeat”.

During playback, you can do the following.

- ▶/■** Stop playback.
- ▶▶** Stop the song currently playing and advance to the next song.
- ◀◀** Return to the beginning of the song currently playing.

\*If the MV-30's internal memory contains two or more songs and the disk songs cannot be loaded completely, the display will read “Out of Memory”, and the Chain Load/Play operation will end.

## Save the Chain Load settings

In the **[Chain Load]** page you can save the Chain Load settings to disk. A disk can contain only one set of Chain Load settings.

- ① Set the protect slider of the disk to the “write enable” position, and insert it into the disk drive.
- ② **CHAIN LOAD** The **[Chain Load]** page will appear.
- ③ **F2** SaveSet A popup window will open.
- ④ Auto Start Switch Normally you will turn this Off. If you want Chain Loading to be done automatically the next time you start up the system, turn this On. (This setting is valid only when it has been saved to a system disk.)
- ⑤ **F2** SaveSet Execute saving.
- When saving has finished, the display will read “Complete”.

## Load the Chain Load settings

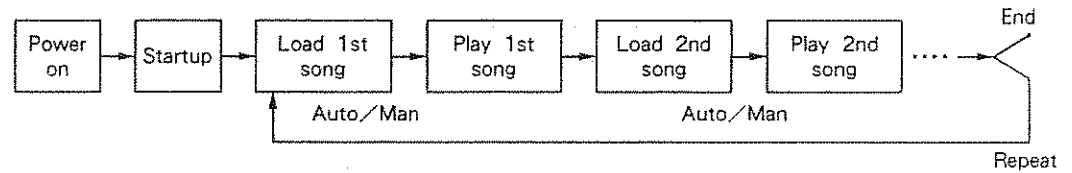
Use the following procedure to load Chain Load settings.

- ① Insert the disk containing the Chain Load data into the disk drive.
- ② **CHAIN LOAD** The **[Chain Load]** page will appear.
- ③ **F1** LoadSet Execute loading.
- When loading is finished, the display will read “Complete”.



## Automatically execute Chain Load when the system is started

It is possible to have Chain Load occur automatically when the system is started up. This will make the specified chain of songs be played back automatically the next time the system is started up.



After you make Chain Load settings,

- ① Insert the MV-30 System disk into the disk drive, with the protect tab in the "write enable" position.
- ② **CHAIN LOAD** The **[Chain Load]** page will appear.
- ③ **F2** Save A popup window will open.
- ④ Auto Start Switch Set this to "On".
- ⑤ **F1** Save Execute saving. When finished, the display will read "Complete".

The next time this disk is used to start up, the Chain Load page will automatically appear, and Chain Load function will be executed.

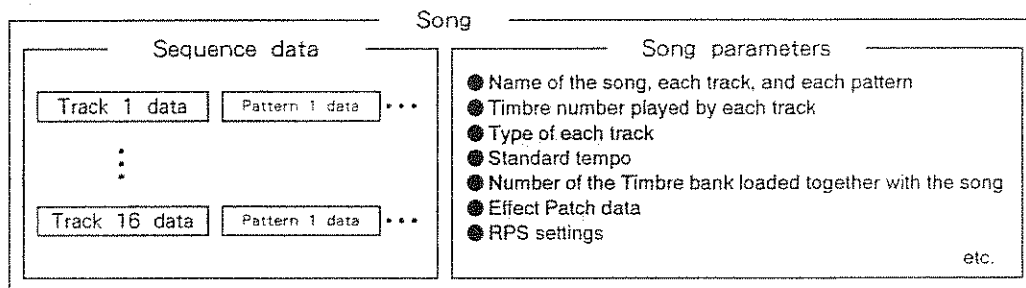
## 2. CREATE A SONG

### The data structure of a Song

A song consists of sequence data (events) written into Tracks and Patterns, and data attached to the song (song parameters).

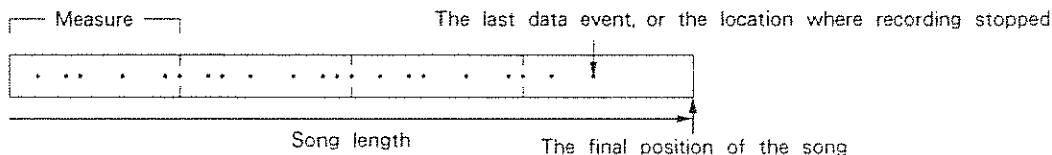
A list of the song parameters is given in the appendix (⇨ P.6-11).

Songs on a disk are distinguished by their song name, so you must always assign a name to a song. It is not possible for two identically-named songs to be on the same disk.



### Song length

The length of each song will be different. The last recorded measure of the longest track (i.e., the last measure which contains data) will be the last measure of the song. It is not possible to play beyond the last measure, nor to use the Microscope function beyond the end of the song.



If you record or insert data beyond this point, or if an editing operation creates data beyond this point, new measures will be created with the time signature specified in the TRACK **REALTIME** setting **F1** REC PRM—New Measure Beat (⇨ P.4-51).

\* If the data of a Pattern which was called by a Pattern Call Event extends beyond the end of the song, that portion will not be played.

### Locations in a song

Locations in a song are expressed in measures, beats, and clocks.

One clock is a 96th of a quarter note, and the beginning of a beat is clock '0'. One clock is the smallest unit of time that the MV-30 uses.

For example, a location of 4 – 2 – 48 in 4/4 time would indicate the second half of the 2nd beat of the 4th measure.

If the denominator of the time signature is an eighth note, the next beat after clock 47 will be clock 0.

### Song capacity

A song can contain up to approximately 50,000 notes. Internal memory can contain up to 20 songs, but the total of all songs cannot exceed approximately 50,000 notes (⇨ P.2-8).

A disk which contains the System can accommodate approximately 70,000 notes, and a disk which does not contain the System can accommodate approximately 100,000 notes. In either case, a disk can contain up to 64 songs.

## How to select an empty song number

When you want to select an unused song number to create a completely new song, use the following procedure.

- ① **SONG SELECT** A popup window will open.
- ② Use the numeric keys to enter a song number. (The VALUE dial cannot be used to select empty song numbers).
- ③ **EXIT** The popup window will close.

## How to erase (initialize) a song

When you want to erase (initialize) a song which contains data, use the following procedure.

- ① **SONG SELECT** A popup window will open.
- ② Song Select the song you want to initialize.
- ③ **F1** A popup window will open, asking for confirmation.
- ④ **F1** The song will be initialized (erased).  
The parameter list on P.6-11 shows the initialized value of each parameter.

## Make track settings before recording

Make track settings before recording.

- ① **TRACK REALTIME** The [Realtime REC] page will appear.

```

Realtime REC                                     STOP
Track 1 [          ] M= 1 [****-**]
Timbre 1 [A.Piano 1] J= 120 [----]
Track Type Standard REC Mode Normal
Track status ----- P----- 98%
REC PRM REC SW TRK PRM --- P.Chg
  
```

- ② Track Select the track you wish to record.  
In this example, we will explain how to record an internal sound source track, so select a track (1—8). To use external sound modules, refer to P.3-56.

### Specify the Timbre to be played by the track

- ③ Timbre Specify the Timbre to be played by the track.  
Timbres can be changed even during the song (⇨ P.3-29).

### Specify the type of track

- ④ Track Type Specify the type of track.  
If you want to record musical data directly into the track, select 'Standard'. If you want to record data in a Pattern and then call the Pattern from the track, select 'Pattern' (⇨ P.3-20).

### Name the track

- ⑤ **F3** TRK PRM A popup window will open.
- ⑥ Name Give a name to the track. (Name input ⇨ P.1-6)
- ⑦ **EXIT** The popup window will close.

## Track recording

### Realtime recording of a standard-type track

This method of recording will record a performance from a connected MIDI keyboard.

#### Prepare for recording

- ① Make the above track settings (⇨ P.3-15).
- ② Use a MIDI cable to connect the MIDI OUT of your keyboard to the MID IN of the MV-30 (Q.S. ⇨ P.8).
- ③ Raise all faders and the master volume (VOLUME).
- ④ REC Mode Select the recording mode.

If you are recording for the first time, select Normal, Mix, or Key On.

Normal	Recording will begin from the current position (M=). If data has already been recorded, the newly recorded data will replace the old data.
Mix	Recording will begin from the current position (M=). If data has already been recorded, the newly recorded data will be added to the old data.
Key On	Recording will begin the instant you begin playing. If data has already been recorded, the newly recorded data will replace the old data.

If you will be recording a Drum Part, it will be convenient to select 'Loop', which allows you to continuously record over a specified number of measures, adding notes on each pass.

Loop <1, 2, 4, 8, 16> Recording will repeat over the specified number of measures, and the newly recorded data of each pass will be added to the previous data.

- ⑤ Count In
 




Off	Recording will begin from the current position (M=).
1	If the current position (M=) is at the beginning of a measure, playback will begin from 1 measure earlier, and recording will begin when the current position is reached. If the current position (M=) is in the middle of a measure, playback will begin from the beginning of that measure, and recording will begin when the current position is reached.
2	If the current position (M=) is at the beginning of a measure, playback will begin from 2 measures earlier, and recording will begin when the current position is reached. If the current position (M=) is in the middle of a measure, playback will begin from the beginning of the previous measure, and recording will begin when the current position is reached.
- ⑥ **F1** REC PRM A popup window will open.
- ⑦ New Measure Beat Specify the time signature of the measures you will record.

#### Set the tempo



- ① **REC** The metronome will begin beeping, and the **REC** LED will blink.
- ② While pressing **TEMPO**, rotate the VALUE dial to adjust the tempo.  
It is possible to adjust the tempo later, so if you will be recording a difficult musical passage, you may wish to record at a slower tempo.
- ③ **REC** once again The metronome will stop beeping, and the LED will stop blinking.

## Record!




If the REC Mode has been set to [Normal] or [Mix]

- ①  Recording standby
- ②  count-in → Begin recording
- ③ Play the connected MIDI keyboard
- ④  Stop recording



If the REC Mode has been set to [Key On]

- ①  Recording standby
- ② When you play the keyboard, recording will begin
- ③  End recording

or

- ①  Recording standby
- ②  Begin playing
- ③ When you play the keyboard, recording will begin
- ④  Stop recording

If the REC Mode has been set to [Loop <1, 2, 4, 8, 16>]

- ①  Recording standby at the beginning of the current measure
- ②  Begin recording
- ③ Play the keyboard

**\* When the specified number of measures have been recorded, you will return to the first measure and recording will continue.**

- ④  Stop recording

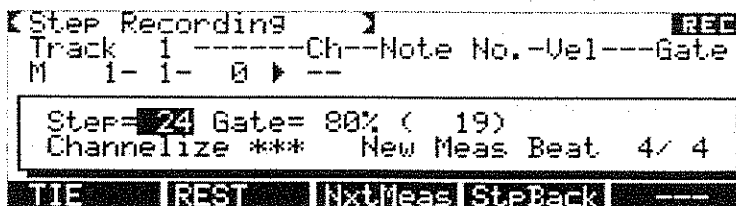
## ■ Step recording a standard-type track

Step recording allows you to enter musical data as individual events.

\* If you record over a location which already contains data, the previous data will be replaced by the newly recorded data.

### Prepare for recording

- ① Make track settings (⇨ P.3-15).
- ② If you want to use a MIDI keyboard for input, use a MIDI cable to connect it to the MV-30 (Q.S. ⇨ P.8).
- ③ Raise all faders and the master volume (VOLUME).
- ④ TRACK [MICROSCOPE] The [Microscope] display will appear.
- ⑤ Jump to the location specified by M [ ] - [ ] - [ ] ▶.
- ⑥ [REC] or [F5] Step The [Step Recording] display will appear.



- ⑦ New Meas Beat Set this to the time signature of the song you wish to record.

### Record!

- ① Step= Enter the duration of the first note in clock units (1/96th of a quarter note).  
While pressing [SHIFT], press a numeric key to enter the note value printed at the upper right of each key.

For example, to enter a step time of 48, hold [SHIFT] and press [6] (♩).

- \* To enter a rest, press the corresponding note value key. For example, to enter an eighth rest, press numeric key 6.)
- \* To enter dotted notes, or other note values that are not printed on any of the keys, use the numeric keys to enter a corresponding numeric code (without pressing the [SHIFT] key). Refer to the following chart.

Note value	Step time/ Numeric key	Note value	Step time/ Numeric key
♩	384	♩	32 [5]
♩	288	♩	36
♩	192 [9]	♩	24 [4]
♩	128	♩	16 [3]
♩	144	♩	18
♩	96 [8]	♩	12 [2]
♩	64 [7]	♩	8
♩	72	♩	6 [1]
♩	48 [6]	♩	3 [0]

● Specify tenuto or staccato


Gate= %

This determines what percentage of the "Step=" value will be entered as the actual note length (the gate time).

For example, if Step = 48 (an 8th note) and Gate = 80% are entered, the note will be held for 80% of the length of an 8th note.

Lower % settings will result in staccato notes, and higher % settings will result in tenuto notes.

② To enter a rest

 or **F2** REST

The position will advance by the length specified for "Step=".

\* The MV-30 does not contain "rest" data, but simply advances the position by the length of the rest.

② To enter a note

If you are using a MIDI keyboard,

press the note you wish to enter. When you release the key, the note number and velocity you played and the gate time you specified for Gate = in the popup window will be entered. You may then enter the next note.

To enter note numbers with the numeric keys,

②—① **ENTER**

The cursor will move to Note No., and a temporary note number will be displayed.

②—② Note No.

Use the numeric keys to enter the note pitch. You can enter the note as a number (0—127) directly from the numeric keys.

To enter the note as a key name and octave number such as C4, hold the **SHIFT** key and use the numeric keys.

### Input by number

7	8	9
4	5	6
1	2	3
0	ENTER	

(Enter notes by specifying a note number 0-127)

Enter note numbers in the usual way

If you press **6** → **0** → **ENTER**,  
the resulting note will be **C 4(60)**.

↑  
note number

### Input by key name

	b	#	
	E	F	G
	B	C	D
SHIFT	A		

white holding **SHIFT**

(Enter notes by specifying a key name C-G9)

7	8	9
4	5	6
1	2	3
0		

While holding **SHIFT**, enter the key (A-G) and the ♭ or # symbol, and then enter the octave number.

If you press **SHIFT** + **2c** → **4**, the resulting note will be **C 4(60)**.

↑  
key name

②—③ **ENTER**

The cursor will move to Vel (velocity), and a temporary value will be displayed.

②—④ Vel

Enter the velocity (1—127) of the note. Higher values will result in a louder notes.

- ②—⑤ **ENTER** The value calculated from Step = and Gate = % will be displayed for Gate.
- ②—⑥ Gate Modify the gate time if necessary.
- ②—⑦ **ENTER** The event will be finalized, and the position will advance by the length specified for Step =. Now you can enter the next note.

### To enter a chord

If you are using a MIDI keyboard, simply press the notes of the chord.

To enter a chord from the numeric keys, press **SHIFT** + **ENTER** when the cursor is located at "Gate", and you can enter another note at the same location.

### To enter a tie

**▶/■** or **F1** TIE

The step time of the previous data will be lengthened by the value of "Step". The Gate Time will also be lengthened accordingly.

### To advance to the beginning of the next measure

**SHIFT** + **▶▶** or **F3** NxtMeas

Advance to the beginning of the next measure.

### To delete the previous note (step back)

**◀◀** or **F4** StpBack

Return to the previous event and delete. Be aware that this will delete data.

## Pattern recording

### Pattern realtime recording

This method allows you to record a performance from a MIDI keyboard just as it is played.

#### Prepare for recording

- ① Make track settings (⇐ P.3-15).
- ② Use a MIDI cable to connect the MIDI OUT of your keyboard to the MV-30 MIDI IN (Q.S. ⇐ P.8).
- ③ Raise all faders and the master volume (VOLUME)
- ④ **PATTERN** **REALTIME** If this will be the first Pattern recorded in this track, a message will appear asking whether you want to create a new Pattern. Press **F1** Create, and the **[PTRN Realtime REC]** page will appear.

```

【PTRN Realtime REC】 Complete STOP
Track 1 [ ] Measure 1
PTRN 1 [ ] Tempo ♩= 120
Pattern Size 1 Timbre 1
Beat 4/4 : [G, Piano 1]
REC PRM REC SW SetName --- Create

```

- ⑤ **F3** SetName A popup window will open.
- ⑥ Name Enter a name for the Pattern (Name input ⇐ P.1-6).
- ⑦ **EXIT** The popup window will close.
- ⑧ Pattern Size Specify the number of measures (size) of the pattern.
- ⑨ Beat Specify the time signature (beat) of the Pattern.



## Specify the tempo

- ① **REC** The metronome will begin beeping and the **REC** LED will blink.
- ② While pressing **TEMPO**, rotate the VALUE dial to adjust the tempo.  
It is possible to adjust the tempo later, so if you will be recording a difficult musical passage, you may wish to record at a slower tempo.
- ③ **REC** once again The metronome will stop beeping, and the LED will stop blinking.

## Record!

- ① **REC** Standby for recording at the beginning of the Pattern.
  - ② **▶/■** Begin recording
  - ③ Play your MIDI keyboard.
- \* When you reach the end of the specified pattern length, you will return to the first measure and recording will continue.
- ④ **▶/■** Stop recording

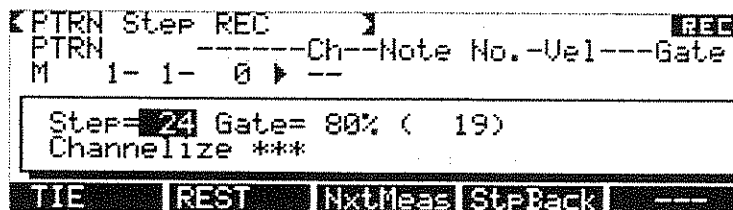
## ■ Pattern step recording

Step recording allows you to record by entering individual data events.

\* If you record over a location which already contains data, the previous data will be replaced by the newly recorded data.

## Prepare for recording

- ① Make track settings (⇨ P.3-15).
- ② If you are using a MIDI keyboard, use a MIDI cable to connect it to the MV-30 (Q.S. ⇨ P.8).
- ③ Raise all faders and the master volume (VOLUME).
- ④ **PATTERN** **REALTIME** If you are entering the first Pattern for this track, you will be asked whether you want to create a new pattern. Press **F1** Create. The **[PTRN Realtime REC]** page will appear.
- ⑤ **F3** Set Name A popup window will open.
- ⑥ Name Enter a name for the Pattern (Name input ⇨ P.1-6).
- ⑦ **EXIT** The popup window will close.
- ⑧ Pattern Size Specify the number of measures (size) of the Pattern.
- ⑨ Beat Specify the time signature (beat) of the Pattern.
- ⑩ **PATTERN** **MICROSCOPE** The **[PTRN Microscope]** page will appear.
- ⑪ Jump to the location specified by "M -".
- ⑫ **REC** or **F5** Step The **[PTRN Step REC]** display will appear.



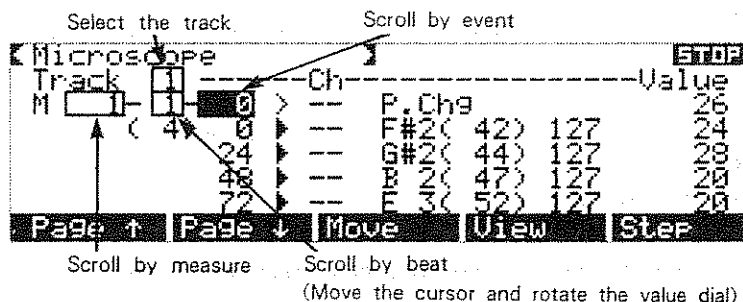
## Record!

Record using the same procedure as explained in step recording for standard-type tracks. Refer to P.3-18.

## Edit individual notes in a standard track

You can use the Microscope to edit individual data events that were recorded in a track.

- ① **TRACK** **MICROSCOPE** The **Microscope** page will appear.



- ② **Track** Select the track you wish to edit. You can also select a track by pressing a track key.

### Modify the values of the event

- ① **F1** **Page ↑** / **F2** **Page ↓** Display the event you wish to edit on the top line of the screen. You can also move the cursor to the clock value (**M** **—** **—** **□**), and rotate the **VALUE** dial to select an event.
- ② the value of each parameter Modify the values.

### Move an event

- ① **F1** **Page ↑** / **F2** **Page ↓** Display the event you wish to move on the top line of the screen. You can also move the cursor to the clock value (**M** **—** **—** **□**), and rotate the **VALUE** dial to select an event.
- ② **F3** **Move** A popup window will open.
- ③ **M** Specify the new measure/beat/clock position of the event.
- ④ **F1** **Move** Move the event to the new location.

### Insert an event

- ① **INS** A popup window will open.
- ② **M** Specify the measure/beat/clock location where the event will be inserted.
- ③ **F1** **Note** Insert a Note event.
- F2** **C.Chg** Insert a Control Change event.
- F3** **P.Chg** Insert a Program Change event.
- F4** **CAf** Insert a Channel Aftertouch event.
- F5** **Bend** Insert a Pitch Bender event.
- SHIFT** + **F1** **PAf** Insert a Polyphonic Aftertouch event.
- ④ Specify the values of the inserted event.

### Delete an event

- ① **F1** **Page ↑** / **F2** **Page ↓** Display the event you wish to delete on the top line of the screen. You can also move the cursor to the clock value (**M** **—** **—** **□**), and rotate the **VALUE** dial to select an event.
- ② **DEL** A popup window will open.
- ③ **F1** **Delete** Delete the event.

## Edit individual notes in a Pattern

You can use the Microscope to edit individual data events that were recorded in a Pattern.

- ① PATTERN **REALTIME** The [PTRN Realtime REC] page will appear.
- ② Track Select the track which contains the Pattern you wish to edit.
- ③ PATTERN **MICROSCOPE**

The [PTRN Microscope] page will appear.

PTRN Microscope				STOP	
PTRN	1	Ch	Note No.	Vel	Gate
M	1- 1- 0		D#3( 51)	127	40
			C#3( 49)	127	508
==== Meas ... 2 (Beat 4/ 4) =====					
	( 4) 0		F#2( 42)	127	20
			G#2( 44)	127	24

0th clock of first beat of first measure in the Pattern

- ④ PTRN Select the Pattern you wish to edit.

Editing procedure is the same as for standard-type tracks. Refer to the previous page.

## Call a Pattern from a track

To have Patterns play back from a track, you can insert "Pattern Call" events into the track. Pattern Call events can be inserted only in a pattern-type track.

- ① TRACK **MICROSCOPE** The [Microscope] page will appear.
- ② Track Select the track from which you will call the Pattern.
- ③ **INS** The Insert Event popup window will open.
- ④ M Specify the measure/beat/block position where the Pattern will begin.
- ⑤ Pattern Select a Pattern to call from the track. (Only Patterns of this track can be selected.)
  - \* If you wish to use Patterns of another track, use the Pattern Copy function to copy the Patterns to this track (→ P.3-33).

Microscope		STOP
Track	1	
M	1- 1- 0 >	
[ Insert Event ] M 1- 1- 0		
Pattern 1 [ ]		
Insert		

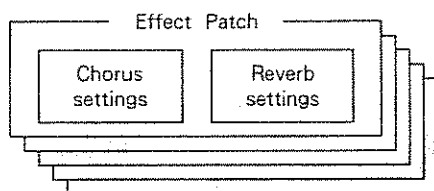
The Pattern to be assigned

- ⑥ **F1** Insert A Pattern Call event will be inserted
- ⑦ Repeat steps ③— ⑥ as necessary.

It is also possible to call two or more Patterns from the same location.

## Effect Patches

The MV-30 contains two effect units; chorus and reverb. A group of settings for these two effect units is called an Effect Patch. The MV-30 can store five of these Effect Patches.



Effect Patches can be selected by "Effect Change" events which you can insert using the Compu Mixer or the Microscope.

This allows you to change Effect Patches in the middle of a song (⇨ P.3-30).

## Editing an Effect Patch

Here's how to edit an Effect Patch.

### Chorus settings

- ① TRACK **REALTIME** The **Realtime REC** page will appear.
- ② **SHIFT** + **F1** Chorus or **PLAY** From the **Play** page, press **F2** Chorus  
A popup window will appear.
- ③ Effect Select the Effect Patch number.
- ④ Make chorus settings. For an explanation of each parameter, refer to the list of functions (⇨ P.4-3).
- ⑤ **EXIT** A popup window will close.

### Reverb settings

- ① TRACK **REALTIME** The **Realtime REC** page will appear.
- ② **SHIFT** + **F2** Reverb or **PLAY** From the **Play** page, press **F3** Reverb  
A popup window will appear.
- ③ Effect Select the Effect Patch number.
- ④ Make reverb settings. For an explanation of each parameter, refer to the list of functions (⇨ P.4-4).
- ⑤ **EXIT** A popup window will close.

## Specify effects for each track

You can specify how the effects will be applied to each track.

- ① **PLAY** The **Play** page will appear.
- ② Out Dry Output from the MIX OUT jacks with no effect
- Cho Output from the MIX OUT jacks with chorus
- Rev Output from the MIX OUT jacks with reverb

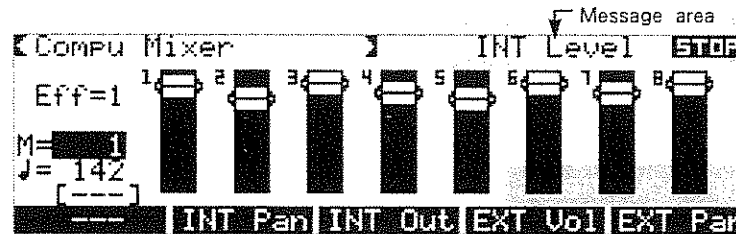
Track output settings can be changed during a song (⇨ P.3-31).

## Record mixer volume changes

By using the faders to control the volume, you can adjust the balance between parts and create fade-in and fade-out effects. These fader movements can be recorded in the mixer track. (replace recording)

① **COMPU MIX**

The [Compu Mixer] page will appear.



② If the message area does not display INT Level, press **F1** INT Lvl.

Now you can control the volume of internal sound source tracks.

## Rehearse the recording

① **SHIFT** + **◀◀**

Return to the beginning of the song.

② **MANUAL**

The mixer will be set to MANUAL mode. Now you can use the faders to control track volumes.

or **COMPU**

The mixer will be set to COMPU mode. Press a track key to turn off its track LED, and you can use the fader to adjust the volume of that track.

③ **▶/■**

While listening to the playback, move the faders to rehearse the mix.

④ **▶/■**

Stop playback.

## Record!

① **SHIFT** + **◀◀**

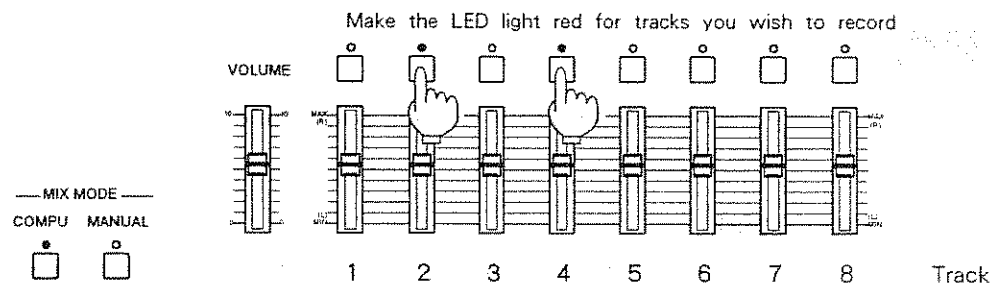
Return to the beginning of the song.

② **REC**

The mixer mode will automatically be set to COMPU, and you will enter recording standby (**REC** and **▶/■** LEDs will blink).

③ Press track keys to select the tracks you wish to record. The LEDs of selected tracks will light red.

You can record on more than one track at a time.



④ Set the faders of the tracks you wish to record to appropriate levels.



⑤  Start realtime recording.

⑥ While listening to the playback, move the faders.

⑦  Stop recording.

### Check

Check whether the data was correctly recorded.


①  +  Return to the beginning of the song.


②  Start playback.

③  Stop playback.

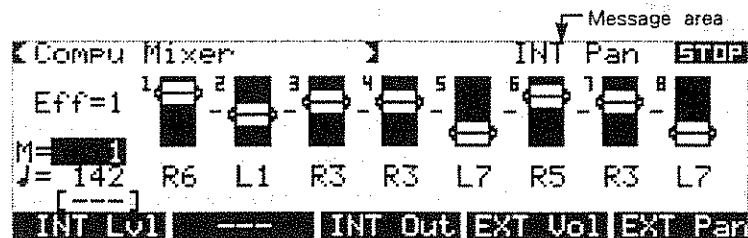
## Record mixer pan movements

If the sound is to be output in stereo, you can use the faders to control pan (stereo position). These fader movements can be recorded in the mixer track. (replace recording)

①  The **[Compu Mixer]** page will appear.

② If the message area does not display INT Pan, press  INT Pan.

Now you can control the panning of internal sound source tracks.



Rehearsing, recording, and checking are the same as when recording volume changes, as explained on the previous page.


\* Even if you move the fader while holding a key down on your MIDI keyboard, the pan of the note will not be changed.


## Save

Now that you have completed a song, you should save it to disk. If you turn the power off without saving, the data will be lost.

### Formatting a disk

If you wish to save the data on a newly purchased disk, you must format the disk first. When you format a disk, all data in that disk will be lost.

①  The **[Disk Menu (1)]** page will appear.

②  Page The **[Disk Menu (2)]** page will appear.

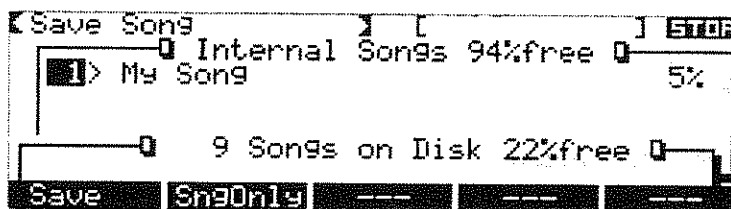
③  Format The **[Format]** page will appear.

④ Insert a new disk (with the protect slider in the "WRITE ENABLE" position.) into the disk drive.

- ⑤ Assign a disk name. When formatting a disk, you can assign a disk name of up to 11 characters. It is not possible to modify this later (Name input, ⇨ P.1-6).
- ⑥ **F1** SysDisk If you want to create a System disk that can be used to start up the MV-30, press this key.  
If you want to format the disk without the System (so that it will accommodate more data) press **F2** DataDisk.  
A popup window will appear.
- ⑦ **F1** Format Execute the Format operation.  
When the operation is finished, the display will read "Complete".
- ⑧ **EXIT** Return to the **[Disk Menu (2)]** page.

### Saving a song

- ① Insert the disk (on which you want to save the data) into the disk drive.
- ② **DISK** The **[Disk Menu (1)]** page will appear.
- ③ **F3** SV Song The **[Save Song]** page will appear.



- ④ Use the VALUE dial to select the song you wish to save.
- ⑤ If a song name has not been assigned, or if you wish to modify the name, move the cursor to the right and enter/modify the song name (Name input ⇨ P.1-6).
- ⑥ **F1** Save Save the song and all Timbres.
- ⑦ Specify the Timbre Bank number of the disk.  
The next time you load this song, the bank of Timbres you specify here will also be loaded.
- ⑧ **F1** Save Execute the Save operation.  
If a song of the same name already exists on the disk, you will be asked "Overwrite OK?". If you want to keep the song that is already on the disk, press **EXIT** to return to step ⑤, and change the name of the new song you wish to save.  
If there is not enough room on the disk, the display will read "Disk Full", and saving will not be possible. Either save the data on a different disk, or use the Delete Song operation to delete unnecessary songs from the disk (⇨ P.3-71).
- ⑩ **EXIT** Return to the **[Disk Menu(1)]** page.

# 3. ADVANCED SONG CREATION TECHNIQUES

## Re-record part of a song (punch in/out)

It is possible to playback the data you recorded, and re-record only a specified section. Changing from playback to the recording mode is known as “punching in”, and changing from recording to the playback mode is known as “punching out”.

### Punch in/out manually

- ① TRACK **REALTIME** The **[Realtime REC]** page will appear.
- ② REC Mode Select “Punch MAN”.
- ③ **REC** Stand by for recording.
- ④ **▶/■** Begin playback. (If a Count In has been specified, playback will begin after the count.)

When you reach the section to be re-recorded,

- ⑤ **REC** Enter record mode. (punch in)

When you come to the end of the section to be re-recorded,

- ⑥ **REC** Return to playback. (punch out)

Each time **REC** is pressed, you will alternately punch in and out.

- ⑦ **▶/■** Recording or playback will stop.

### Punch in/out using a foot pedal

- ① Connect a foot pedal (eg. DP-2: sold separately) to the FOOT SW jack (rear panel).
- ② **SYSTEM** The **[System Config]** page will appear.
- ③ Pedal Assign Set to Punch I/O

While recording, you can press the pedal to enter the playback mode. To return to the recording mode, press the pedal once again.

The pedal will perform the same function as the **REC** key in the recording mode.

### Punch in/out by specifying the locations

- ① TRACK **REALTIME** The **[Realtime REC]** page will appear.
- ② **LOCATE** The Locate popup window will open.
- ③ LOC Select 0 (REC start point).
- ④ M Specify the measure/beat/clock position at which to punch in.  
or  
Press **▶/■** to playback the song, and press **F2** Set Now when the desired punch in location is reached.
- ⑤ LOC Select 9 (REC end point).
- ⑥ M Specify the measure/beat/block position at which to punch out.  
or  
Press **▶/■** to playback the song, and press **F2** Set Now when the punch out location is reached.
- ⑦ **EXIT** The popup window will close.

When you enter recording mode,

If REC Mode is Punch I/O Punch in at the REC start point, and punch out at the REC end point.

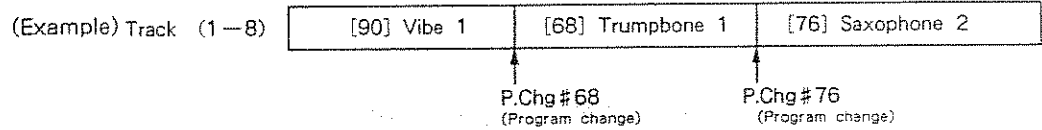
If REC Mode is Punch In Punch in at the REC start point.

If REC Mode is Punch Out Punch out at the REC end point.



## Change the Timbre played by a track during the song

The Timbre being played by a track can be changed in the middle of the song. (The Rhythm Timbre cannot be changed.) When a new Timbre is selected, the sound is briefly muted to avoid any 'click' noise. For natural-sounding Timbre changes, you should write the change data slightly ahead of the time when the new Timbre will be played.



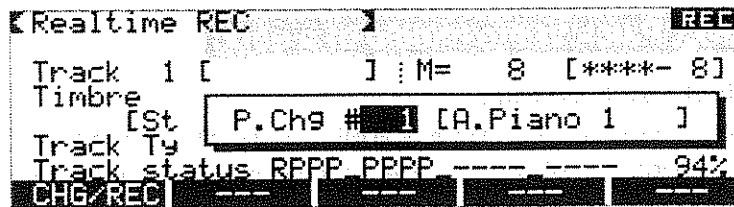
Timbre numbers correspond to Program Change numbers.

### While recording

Record a Program Change message into a track.

While recording (☞ P.3-17),

- ① **[F5]** P.Chg      A popup window will open.



- ② P.Chg#      Select the Timbre you wish to use next.
- When the moment to change the sound arrives,
- ③ **[F1]** CHG/REC      A Program Change will be recorded, and the Timbre will change.
  - ④ **[EXIT]**      The popup window will close.

### While editing

While editing, you can insert a Program Change event into a track by using the following procedure.

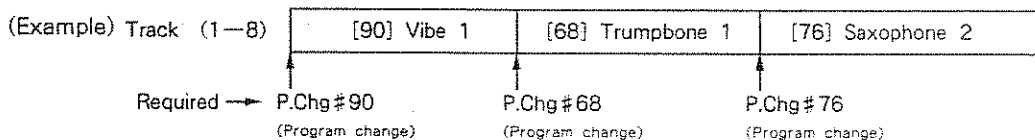
- ① TRACK **[MICROSCOPE]**      The **[Microscope]** display will appear.
  - ② Track      Select the track. (Select a standard-type track.)
  - ③ **[INS]**      A popup window will open.
  - ④ M      Specify the measure/beat/clock position at which to insert the event.
  - ⑤ **[F3]** P.Chg      Insert a Program Change event.
  - ⑥ Value      Enter the Timbre number.
- Timbre numbers correspond to Program Change numbers.

To insert a Program Change event into a Pattern,

- ① PATTERN **[REALTIME]**      The **[PTRN Realtime REC]** page will appear.
  - ② Track      Select the track which contains the Pattern.
  - ③ PTRN      Select the Pattern.
  - ④ PATTERN **[MICROSCOPE]**      The **[PTRN Microscope]** page will appear.
  - ⑤ **[INS]**      A popup window will open.
  - ⑥ M      Specify the measure/beat/clock position at which the event will be inserted.
  - ⑦ **[F3]** P.Chg      Insert a Program Change event.
  - ⑧ Value      Enter the Timbre number.
- Timbre numbers correspond to Program Change numbers.

### If you change Timbres in the middle of a song

If you will be changing Timbres in the middle of a song, insert a Program Change event into the beginning of the song. This selects the Timbre number that will be used first. Unless you do this, the Timbre that was selected when the previous playback was stopped will be used.

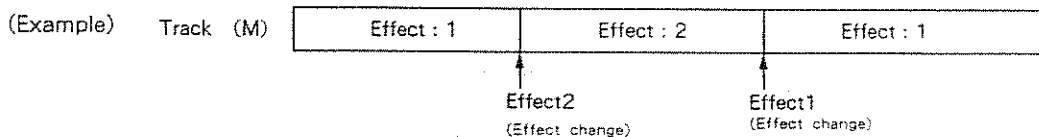


- ① TRACK **MICROSCOPE** The **[Microscope]** page will appear.
- ② Track Select a track. (Select a standard-type track.)
- ③ **INS** A popup window will open.
- ④ M Set the insertion point as 1 - 1 - 0.
- ⑤ **F3** P.Chg Insert a Program Change event.
- ⑥ Value Enter the number of the Timbre that you wish to play from the beginning of the song.  
Timbre numbers correspond to Program Change numbers.

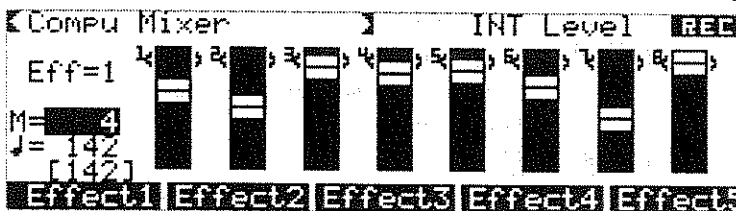
### Changing the Effect Patch in the middle of a song

#### Recording an Effect Patch change

It is possible to change the Effect Patch in the middle of a song. When the Effect Patch is changed, the effect sound will be muted briefly to avoid any 'click' noises. For a more natural-sounding result, write the Effect Patch change a bit earlier in the track.



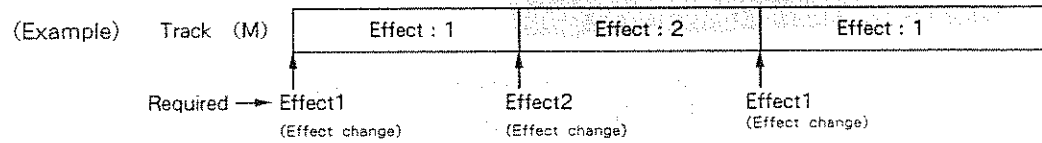
- ① Make Effect Patch settings (☞ P.3-24).
  - ② Jump to a position before the location where you want to change the Effect Patch.
  - ③ **COMPU MIX** The **[Compu Mixer]** page will appear.
  - ④ **REC** You will enter recording standby mode.
  - ⑤ **▶/■** Start recording.
- When the song reaches the location where you want to change the Effect Patch.
- ⑥ **SHIFT + F1 - F5** An Effect Patch Change event for the key you pressed will be recorded, and the Effect Patch will change.  
While holding **SHIFT**, press the appropriate key **F1 - F5**.



- ⑦ **▶/■** Stop recording.

### If you change Effect Patches In the middle of a song

If you will be changing Effect Patches in the middle of a song, insert an Effect Change event into the beginning of the song. This selects the Effect Patch that will be used first. Unless you do this, the Effect Patch that was selected when the previous playback was stopped will be used.



- ① TRACK **MICROSCOPE** The **Microscope** page will appear.
- ② Track Select M (mixer track).
- ③ **INS** A popup window will open.
- ④ M Set the insertion point as 1 - 1 - 0.
- ⑤ **SHIFT** + **F1** - **F5** Insert an Effect Patch Change event.

### Apply internal or external effects to a track (output select)

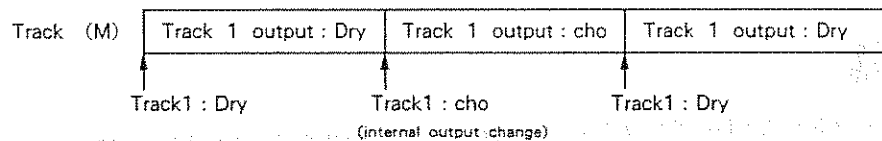
- ① **PLAY** The **Play** page will appear.
- ② Out Dry Output from MIX OUT jacks without applying internal effects
- Cho Apply chorus and output from MIX OUT jacks
- Rev Apply reverb and output from MIX OUT jacks
- Dir1 Output from DIRECT OUT 1 jacks without applying internal effects
- Dir2 Output from DIRECT OUT 2 jacks without applying internal effects

If the DIRECT OUT 1 or 2 jacks are not used, the sound will be output from the MIX OUT jacks in the same way as when 'Dry' is selected.

Track output assignments can be changed in the middle of a song (☞ the next item).

### Change track outputs in the middle of a song

You can change the output of a track in the middle of a song. If you will be changing the output of a track in the middle of a song, be sure to write the initial output assignment into the beginning of the song. Unless you do this, the output that was selected when the previous playback was stopped will be used.



- ① TRACK **MICROSCOPE** The **Microscope** page will appear.
- ② Track Select M (mixer track).
- ③ **INS** A popup window will appear.
- ④ M Specify the insertion point as 1 - 1 - 0.
- ⑤ **F3** An Internal Output Change event will be inserted.
- ⑥ Track Select the track.
- ⑦ Out Specify the output destination.

## Apply effects to specific sounds of the Rhythm Timbre

If the track is playing a Rhythm Timbre, you can specify the output for each key of the keyboard. Refer to P.3-55.

## Avoid recording unwanted data

If you are recording a standard-type track in realtime,

- ① TRACK **REALTIME** The **[Realtime REC]** page will appear. → ②

If you are recording a Pattern in realtime,

- ① PATTERN **REALTIME** The **[PTRN Realtime REC]** page will appear.
- ② **F2** REC SW The REC Switch popup window will appear.
- ③ Turn off data which you do not want to record (→ P.4-51, 6-15).
- ④ **EXIT** The popup window will close.

## Change tempo in the middle of a song

Use step recording to enter tempo changes.

(It is not possible to record tempo changes in realtime.)

- ① While holding **TEMPO**, rotate the VALUE dial to specify the standard tempo.
- ② Jump to the location where you wish to begin changing the tempo.
- ③ TRACK **MICROSCOPE** The **[Microscope]** page will appear.
- ④ Track Select T (tempo track).
- ⑤ **REC** or **F5** step The **[Step Recording]** page will appear.
- ⑥ Step Set the step time to an interval that will be small enough so that tempo changes will not be obvious.
- ⑦ **ENTER** Enter the tempo.
- ⑧ Tempo Specify the tempo value.
- ⑨ **ENTER** Enter the tempo for the next step.
- ⑩ Repeat step ⑦—⑧ as necessary.

Playback the song to check the result. If you wish to edit the data, use the **[Microscope]** page.

## Copy data

### Copy data from a standard-type track to the same or another track

- ① TRACK **EDIT** The **[Song Edit (1)]** page will appear.
- ② **F3** CopyT → T The **[Copy TRK → TRK]** page will appear.
- ③ Specify the copy source track and the section to be copied. Also specify the copy destination track and location, number of times the data will be copied, and whether to merge or replace the data of the copy destination (→ P.4-63).
- ④ If you wish to limit the type of data that will be copied, press **F2** Option and make settings.
- ⑤ **F1** Execute You will be asked "Are you sure?".
- ⑥ **F1** Execute The Copy operation will be executed.

### Copy data from a standard-type track to a Pattern

- ① **PATTERN** **EDIT** The **【Pattern Edit】** page will appear.
- ② **F4** CopyT→P The **【PTRN Copy T→P】** page will appear.
- ③ Specify the copy source track and the section to be copied. Also specify the copy destination Pattern and location, number of times the data will be copied, and whether to merge or replace the data of the copy destination (⇨ P.4-94).
- ④ If you wish to limit the type of data that will be copied, press **F2** Option and make settings.
- ⑤ **F1** Execute You will be asked "Are you sure?".
- ⑥ **F1** Execute The Copy operation will be executed.

### Copy data from a Pattern to a standard-type track

- ① **TRACK** **EDIT** The **【Song Edit(1)】** page will appear.
- ② **F4** CopyP→T The **【Copy PTN→TRK】** page will appear.
- ③ Specify the copy source Pattern, the copy destination track and location, number of times the data will be copied, and whether to merge or replace the data of the copy destination (⇨ P.4-66).
- ④ If you wish to limit the type of data that will be copied, press **F2** Option and make settings.
- ⑤ **F1** Execute You will be asked "Are you sure?".
- ⑥ **F1** Execute The Copy operation will be executed.

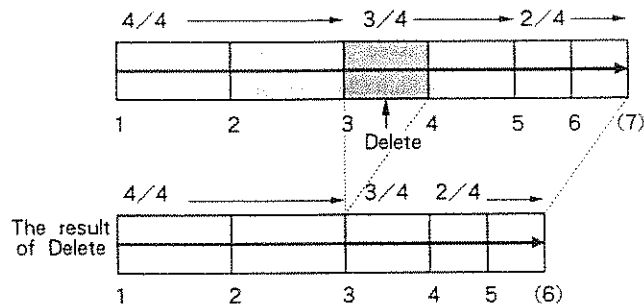
### Copy data from a Pattern to another Pattern

- ① **PATTERN** **EDIT** The **【Pattern Edit】** page will appear.
- ② **F3** CopyP→P The **【PTRN Copy P→P】** page will appear.
- ③ Specify the copy source Pattern and the section to be copied. Also specify the copy destination Pattern and location, number of times the data will be copied, and whether to merge or replace the data of the copy destination (⇨ P.4-92).
- ④ If you wish to limit the type of data that will be copied, press **F2** Option and make settings.
- ⑤ **F1** Execute You will be asked "Are you sure?".
- ⑥ **F1** Execute The Copy operation will be executed.

## Delete measures

- ① **TRACK** **EDIT** The **【Song Edit (1)】** page will appear.
- ② **DEL** or **6**→**ENTER** The **【Delete Measure】** page will appear.
- ③ Track Select "All".
- ④ Measure to Specify the first and last measures to be deleted.

The data will be deleted from the beginning of the first measure to the end of the last measure you specify.

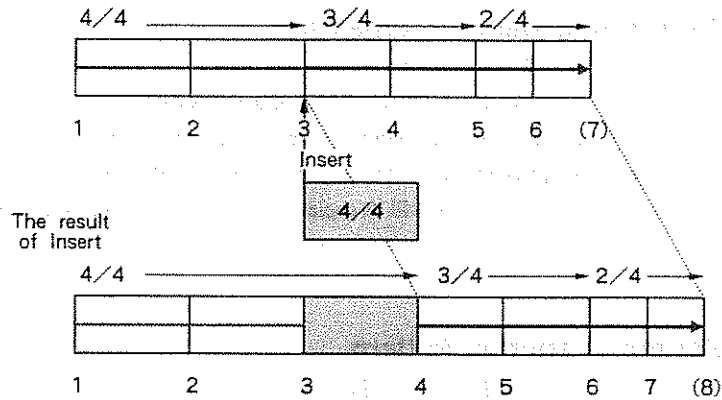


- ⑤ **F1** Execute You will be asked for confirmation.
- ⑥ **F1** Execute The specified measures will be deleted.

## Insert blank measures

- |   |   |
|---|---|
| ① TRACK <b>EDIT</b>                     | The <b>【Song Edit (1)】</b> page will appear.                |
| ② <b>INS</b> or <b>7</b> → <b>ENTER</b> | The <b>【Insert Measure】</b> page will appear.               |
| ③ Track                                 | Select "All".   |
| ④ Measure                               | Specify the location for insertion.                         |
| ⑤ Beat                                  | Specify the time signature of the blank measures to insert. |
| ⑥ Count                                 | Specify the number of measures to insert.                   |

The measures will be inserted, and the data which follows will be moved back accordingly.



- |                     |  |
|---------------------|--|
| ⑦ <b>F1</b> Execute | You will be asked for confirmation.      |
| ⑧ <b>F1</b> Execute | The specified measures will be inserted. |

## Change the location of data

- |  |  |
|--|--|
| ① TRACK <b>EDIT</b>  | The <b>【Song Edit (1)】</b> page will appear.   |
| ② <b>F5</b> Page   | The <b>【Song Edit (2)】</b> page will appear.   |
| ③ <b>F5</b> → <b>ENTER</b>   | The <b>【Shift Clock】</b> page will appear.   |
| ④ Track  | Select the track you wish to move.   |
| ⑤ If you wish to limit the type of data that will be moved, make settings. |  |
| ⑥ Measure to   | Specify the range of movement.   |
| ⑦ Shift Clock  | Specify the amount of movement in clock units.   |
|  | One clock is 1/96th of a quarter note. Positive (+) values will shift data toward the end of the song. |
| ⑧ <b>F1</b> Execute  | You will be asked "Are you sure?".   |
| ⑨ <b>F1</b> Execute  | Execute the Shift Clock operation.   |

**Erase data****Erase (initialize) a song in internal memory**

Press **SONG SELECT** and then press **F1** INIT. Refer to P.3-15.

**Erase data of track**

- |     |  |  |
|-----|--|--|
| ①   | TRACK <b>EDIT</b>                              | The <b>【Song Edit (1)】</b> page will appear. |
| ②   | <b>F1</b> Erase                                | The <b>【Erase】</b> page will appear.         |
| ③   | Specify the data you wish to erase (☞ P.4-61). |  |
| ④   | <b>F1</b> Execute                              | You will be asked "Are you sure?".           |
| ⑤   | <b>F1</b> Execute                              | Execute the Erase operation.                 |
| or, |  |  |
| ①   | TRACK <b>REALTIME</b>                          | The <b>【Realtime REC】</b> page will appear.  |
| ②   | <b>DEL</b>                                     | A popup window will open.                    |
| ③   | Specify the data you wish to erase (☞ P.4-52). |  |
| ④   | <b>F1</b> Execute                              | You will be asked "Are you sure?".           |
| ⑤   | <b>F1</b> Execute                              | Execute the Erase operation.                 |

**Erase a single event**

Refer to page 3-22.

**Transpose**

- |   |                   |   |
|---|-------------------|---|
| ① | TRACK <b>EDIT</b> | The <b>【Song Edit (1)】</b> page will appear.  |
| ② | <b>F5</b> Page    | The <b>【Song Edit (2)】</b> page will appear.  |
| ③ | <b>F1</b> Trmpse  | The <b>【Transpose】</b> page will appear.  |
| ④ | Track             | Select the track you wish to transpose.   |
| ⑤ | Measure to        | Specify the section of data to be transposed.   |
| ⑥ | Transpose         | Specify the amount of transposition in chromatic steps.<br>For example, if you wish to transpose C to D, specify "2". |
| ⑦ | <b>F1</b> Execute | A popup window will open.   |
| ⑧ | Note # Range      | If you wish to limit the range of note numbers to be transposed, make the appropriate setting.                        |
| ⑨ | <b>F1</b> Execute | Execute the Transpose operation.  |

## Tighten up the timing (Quantize)

Even when playing with a metronome, it is difficult to play precisely on the beat. In such cases, you can use the Quantize function to shift the key on timing of notes to precise divisions of the measure. This will make notes playback precisely on the beat. However, this may also destroy the subtle rhythmic nuances that make realtime recordings uniquely yours. Therefore, use quantization only where it is musically advantageous.

Quantization

Timing as played

Timing as recorded

First beat Second beat Third beat Fourth beat

If quantization is set to 1/16 (♩), all 1/16th notes will be shifted to the nearest sixteenth note interval. Other note values will be shifted to the nearest relative position.

Select one of the following quantization intervals

1/2	half note	1/8	eighth note	1/24...	sixteenth note triplet
1/4	quarter note	1/12	eighth note triplet	1/32...	thirty second note
1/6	quarter note triplet	1/16	sixteenth note	1/64...	sixty fourth note

### When recording

If you are recording a standard-type track in realtime,

- ① TRACK **REALTIME** The **[Realtime REC]** page will appear. → ②

If you are recording a Pattern in realtime,

- ① PATTERN **REALTIME** The **[PTRN Realtime REC]** page will appear.
- ② **F1** REC PRM The REC Param popup window will appear.
- ③ Quantize Refer to the above figure, and specify the quantization interval.
- ④ **EXIT** The popup window will close.

### When editing

If you are editing the data of a standard-type track,

- ① TRACK **EDIT** The **[Song Edit (1)]** page will appear.
- ② **SHIFT** + **F1** The **[Quantize]** page will appear.
- ③ Track Select the track to be quantized.  
→ Specify the track into which the quantized data will be written. → ④

If you are editing the data of a Pattern,

- ① PATTERN **EDIT** The **[PTRN Realtime REC]** page will appear.
- ② **F2** The **[Quantize]** page will appear.
- ③ Track Select the track which contains the Pattern you wish to quantize.  
Pattern Select the Pattern you wish to quantize. (The data of the Pattern itself will be rewritten.)
- ④ Quantize Refer to the above diagram, and specify the quantization resolution.
- ⑤ Offset 0
- ⑥ Mode Note On
- ⑦ Measure to Specify the section to be quantized (from the beginning of measure 'x' to the end of which measure 'y').
- ⑧ **F1** Execute A popup window will open.
- ⑨ Note # Range if you wish to specify the range of notes to be quantized, make appropriate settings here.
- ⑩ **F1** Execute Execute the Quantize operation.



## "Lay back" or "push" the rhythmic timing

When using the quantize editing function explained on the previous page or when specifying a quantization value for recording, you can set negative values of "Offset" to create an effect of playing ahead of the beat, or positive values to create an effect of playing behind the beat.

## Make notes more tenuto or staccato

For the data in a standard-type track,

- |                     |   |
|---------------------|---|
| ① TRACK <b>EDIT</b> | The <b>【Song Edit (1)】</b> page will appear.    |
| ② <b>F5</b> Page    | The <b>【Song Edit (2)】</b> page will appear.    |
| ③ <b>F3</b> CHG.G.T | The <b>【Change Gate Time】</b> page will appear. |
| ④ Track             | Select the track you wish to edit. → ⑤          |

For Pattern data,

- |                                    |  |
|------------------------------------|--|
| ① PATTERN <b>EDIT</b>              | The <b>【Pattern Edit】</b> page will appear.  |
| ② <b>SHIFT</b> + <b>F3</b> CHG.G.T | The <b>【PTRN CHG Gate】</b> page will appear.   |
| ③ Track                            | Select the track which contains the Pattern you wish to edit.  |
| ④ Pattern                          | Select the Pattern you wish to edit.   |
| ⑤ Change to                        | To make the notes more tenuto (extended to full duration), set this above 100%. To make the notes more staccato (cut short) set this below 100%. |
| ⑥ Bias                             | Set as necessary (⇐ P.4-76).   |
| ⑦ Measure to                       | Specify the section (from the beginning of measure 'x' to the end of measure 'y') to be modified.  |
| ⑧ <b>F1</b> Execute                | A popup window will open.  |
| ⑨ Note # Range                     | If you wish to specify the range of notes to be affected, make settings here.  |
| ⑩ <b>F1</b> Execute                | Execute the operation.   |

## Rearrange the key assignments of rhythm data

If you change sound sources, the key assignments for rhythm sounds may also be different. The following Transpose function can be used to edit the note numbers and correct the key assignment problem. It is also possible to use a Rhythm Timbre editing function to rearrange the key assignment (⇐ P.3-55).

- |                     |  |
|---------------------|--|
| ① TRACK <b>EDIT</b> | The <b>【Song Edit (1)】</b> page will appear.   |
| ② <b>F5</b> Page    | The <b>【Song Edit (2)】</b> page will appear.   |
| ③ <b>1</b> Trnspse  | The <b>【Transpose】</b> page will appear.   |
| ④ Track             | Select the track you wish to transpose.  |
| ⑤ Measure to        | Specify "All".   |
| ⑥ Transpose         | Specify the amount of transposition in chromatic steps.<br>For example, if you wish to transpose C4 to C5, specify "12". |
| ⑦ <b>F1</b> Execute | A popup window will open.  |
| ⑧ Note # Range      | Specify the range of notes to be affected. Specify the same note for both the left and the right values.                 |
| ⑨ <b>F1</b> Execute | Execute the Transpose operation.   |

## Increase or decrease the overall velocity of notes

For a standard-type track,

- ① TRACK **EDIT** The **【Song Edit (1)】** page will appear.
- ② **F5** Page The **【Song Edit (2)】** page will appear.
- ③ **F2** CHG VEL The **【Change Velocity】** page will appear.
- ④ Track Select the track you wish to modify. → ⑤

For a Pattern,

- ① PATTERN **EDIT** The **【Pattern Edit】** page will appear.
- ② **SHIFT** + **F2** The **【PTRN CHG Velo】** page will appear.
- ③ Track Select the track which contains the Pattern you wish to modify.
- ④ Pattern Select the Pattern you wish to modify.
- ⑤ Change to To increase the overall velocity, set this value above 100%. To decrease the overall velocity, set this value below 100%.
- ⑥ Bias Set this value if necessary (⇐ P.4-75).
- ⑦ Measure to Specify the range (from the beginning of measure 'x' to the end of measure 'y') you wish to modify.
- ⑧ **F1** Execute A popup window will open.
- ⑨ Note # Range If you wish to limit the range of keys to be modified, make settings here.
- ⑩ **F1** Execute Execute the operation.

## Set all notes to the same velocity

For a standard-type track,

- ① TRACK **EDIT** The **【Song Edit (1)】** page will appear.
- ② **F5** Page The **【Song Edit (2)】** page will appear.
- ③ **F2** CHG VEL The **【Change Velocity】** page will appear.
- ④ Track Select the track you wish to modify. → ⑤

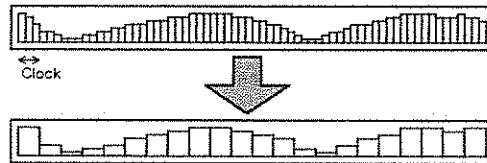
For a Pattern,

- ① PATTERN **EDIT** The **【Pattern Edit】** page will appear.
- ② **SHIFT** + **F2** The **【PTRN CHG Velo】** page will appear.
- ③ Track Select the track which contains the Pattern you wish to modify.
- ④ Pattern Select the Pattern you wish to modify.
- ⑤ Measure to Specify the range (from the beginning of measure 'x' to the end of measure 'y') you wish to modify.
- ⑥ Change to Set to 0%.
- ⑦ Bias Specify the velocity to be set for all notes.
- ⑧ **F1** Execute A popup window will open.
- ⑨ Note # Range If you wish to limit the range of keys to be modified, make settings here.
- ⑩ **F1** Execute Execute the operation.

## Thin out mixer track data to conserve memory

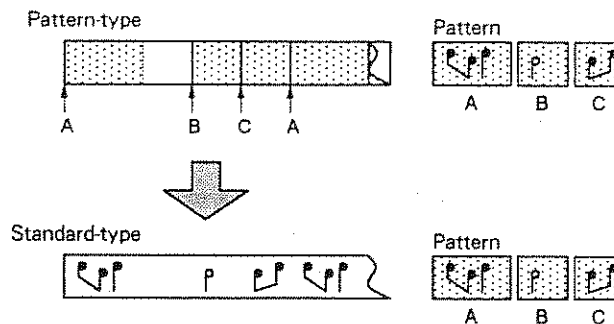
You can thin out the data of the mixer track in order to reduce the amount of memory it occupies.

- |                           |  |
|---------------------------|--|
| ① TRACK <b>EDIT</b>       | The <b>【Song Edit (1)】</b> page will appear.   |
| ② <b>F5</b> Page          | The <b>【Song Edit (2)】</b> page will appear.   |
| ③ <b>7</b> → <b>ENTER</b> | The <b>【Mixer Data Thin】</b> page will appear.   |
| ④ Select                  | Specify the type of event to be thinned out.   |
| ⑤ Track/Ch                | Specify the track/channel of the events to be thinned out.   |
| ⑥ Clock                   | Specify the interval (in clocks) at which events will be thinned out. (One clock is 1/96th of a quarter note.) |



- |                     |  |
|---------------------|--|
| ⑦ Measure to        | Specify the section to be thinned out. |
| ⑧ <b>F1</b> Execute | A message will ask for confirmation.   |
| ⑨ <b>F1</b> Execute | Execute the operation.                 |

## Convert Pattern-type tracks to Standard-type tracks



- |                           |   |
|---------------------------|---|
| ① TRACK <b>EDIT</b>       | The <b>【Song Edit (1)】</b> page will appear.                                |
| ② <b>F5</b> Page          | The <b>【Song Edit (2)】</b> page will appear.                                |
| ③ <b>6</b> → <b>ENTER</b> | The <b>【PTRN Conversion】</b> page will appear.                              |
| ④ Track                   | Select the Pattern-type track you wish to convert to a Standard-type track. |
| ⑤ <b>F1</b> Execute       | A popup window will open.   |
| ⑥ <b>F1</b> Execute       | Execute the operation.  |

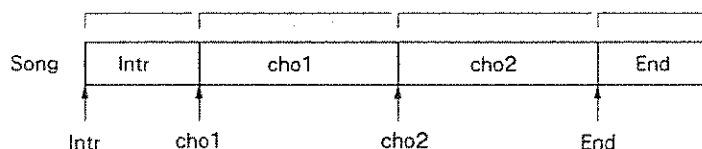
## Use a Pattern to temporarily store data

It is also possible to create Patterns in a Standard-type track. (However these Patterns cannot be called by a Pattern Call event.) These Patterns can be used to temporarily store data from a Standard-type track. By copying data from a Standard-type track to a Pattern and copying from a Pattern to a Standard-type track (⇐ P.3-33), you can use Patterns as data storage locations.

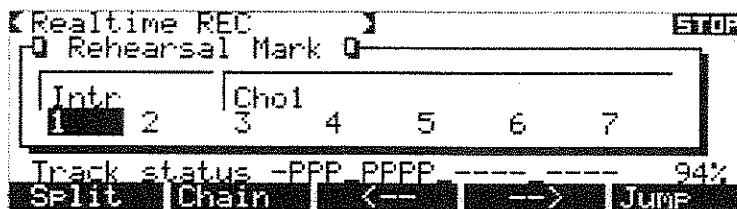
## Assign rehearsal marks for intro, fill in, etc.

For convenience, you can split the song into sections such as intro, 1st chorus, fill-in, etc. by assigning a Rehearsal Mark to the beginning of each section.

You can use these rehearsal marks when selecting a location to playback from, or when specifying an area to be edited.



- ① **MARK** A popup window will open.
- ② Use the VALUE dial or the numeric keys to select the beginning of the section (so it is displayed at the left).
- ③ **F1** Split Split the song at the beginning of the measure displayed at the left.
- ④ Move the cursor up, and assign a name of up to 4 characters to the rehearsal mark (Name input ⇐ P.1-6).
- ⑤ Repeat steps ②—④.



- Jump
  - F5** Jump Jump to the measure displayed at the left.
- Delete or move a rehearsal mark
  - F2** Chain Remove the division and connect the two sections. Press this key after the rehearsal mark to be chained is displayed at the left.
  - F3** ← Move the dividing point one measure earlier. Press this key after the rehearsal mark to be moved is displayed at the left.
  - F4** → Move the dividing point one measure later. Press this key after the rehearsal mark to be moved is displayed at the left.
- ⑥ **EXIT** The popup window will close.

\*If the next or previous division is one measure away, the **F3** and **F4** keys will not function.

## Adjust metronome settings and output

- ① **SONG SELECT** A popup window will open.
- ② Metro Off The metronome will not be heard.
- REC Only The metronome will be heard only during recording.
- REC&Play The metronome will be heard during recording and playback.
- Always The metronome will be heard continuously.
- ④ **EXIT** The popup window will close.

## Change the metronome output

### Internal Metronome

- ① **SYSTEM** The **System Config** page will appear.
- ② **Metro → Phone** Set this to "Off".
- ③ Make sure that the METRONOME output jack (rear panel) does not have a plug connected to it.  
If a plug is connected, the internal metronome will not be heard.

### Metronome feed through headphones

- ① **SYSTEM** The **System Config** page will appear.
- ② **Metro → Phone** Set this to "On".
- ③ Make sure that there is no plug connected to the METRONOME output jack.  
If a plug is connected, the metronome will not be heard through the headphones.  
When the metronome feed is directed to the headphone jack, no sound will be heard through the MV-30's internal metronome speaker.

### Metronome feed through an amplifier

- ① Connect the METRONOME output jack to an amplifier.  
When the METRONOME output jack is used, the metronome output will be switched automatically.

## Prevent notes from dropping out of the melody

The internal sound source of the MV-30 can play up to 30 notes simultaneously. (Each note played by a Tone of a type other than Single or V-SW counts as two notes.) If more than 30 notes are requested simultaneously, one of the currently sounding notes is turned off, and the newly played note is sounded. The Voice Reserve setting allows you to reserve a minimum number of notes for each track. This ensures that notes from musically important parts (such as the melody or bass) are not inadvertently cut off.

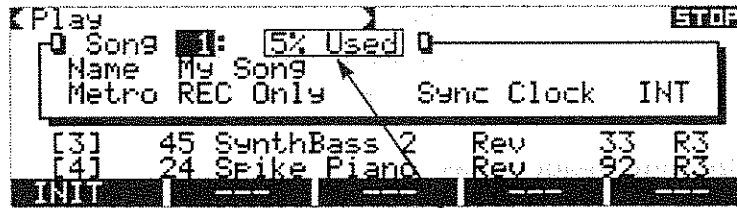
- ① **PLAY** The **Play** page will appear.
- ② **F5** Page The "Ch" and "Voice Res" parameters will be displayed.
- ③ **Voice Res** Specify the number of notes that will be reserved for each track when more than 30 notes are requested simultaneously. It is not possible for this setting to exceed a total of 30 for all tracks. Set a value of '0' for unused tracks.

To display tracks 5—8, press **F1** 1—4/5—8.

## 4. CHECK THE CURRENT STATUS

### Check the size of a song

- ① **SONG SELECT** A popup window will open.
- ② Use the VALUE dial to select the song.



Song data amount

% Used

This indicates the size of the song, expressed as a percentage of the total internal song memory capacity (approximately 50,000 notes).

- ③ **EXIT** The popup window will close.

### Check the amount of available internal memory

- ① **STATUS** A popup window will open.  
\* \* % free in the bottom line

This indicates the amount of remaining internal memory, relative to the total (100%) internal memory capacity (approximately 50,000 notes).

- ② **STATUS** The popup window will close.

### Check the amount of song data on disk

- ① Insert the disk into the disk drive.
- ② **DISK** The **[Disk Menu (1)]** page will appear.
- ③ **F1** LD Song The **[Load Song]** page will appear.
- ④ →

%

This indicates the amount of data which the song contains, relative to the internal song memory capacity (approximately 50,000 notes).

- ⑤ **EXIT** Return to the **[Disk Menu (1)]** page.

### Check the amount of remaining disk memory

- ① Insert the disk into the disk drive.
- ② **DISK** The **[Disk Menu (1)]** page will appear.
- ③ **F1** LD Song The **[Load Song]** page will appear.

\* \* Songs on Disk \* \* % free

This indicates the amount of available disk memory, relative to the disk's capacity (approximately 70,000 notes for a disk which contains the System, or approximately 100,000 notes for a disk which does not contain the System).

- ④ **EXIT** Return to the **[Disk Menu (1)]** page.

### Check the names of Timbres on disk

- ① Insert the disk into the disk drive.
- ② **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ③ **SHIFT**+**F5** Load The popup window will open. You can check the Timbre Bank names in the disk, and the names of the Timbres in each bank.
- ④ **EXIT** The popup window will close.

### Check whether or not tracks contain data

- ① **TRACK** **REALTIME** The **[Realtime REC]** page will appear. "Track status" in the bottom line of the screen displays the track mode of each track.
- ① or **STATUS** The Sequencer Status popup window will appear.
- ② **F1** Mode: "Track Info" will display the track mode of each track.

```

Play                               STOP
Song 1 My Song
Sequencer Status 0
Meas 1 [Intr- 1] Tempo 142 [ 1]
Track Info [Mode] -PPP PPPP
1 Song exist 94% free (512Kb RAM)
Mode | Type | Out | -- | --

```

Tracks 2—8 contain data

From the left, these indicate tracks 1—4, 5—8, 9—12, 13—16.

- P A track that can be played
- M A muted track (notes will not be played)
- A track which contains no data

- ③ **EXIT** The popup window will close.

### Check whether or not tracks contain a specified type of data

- ① **TRACK** **MICROSCOPE** The **[Microscope]** page will appear.
- ② **Track** Select the track.
- ③ **F4** View The "View Select" popup window will appear.
- ④ Specify the type of data you wish to display.
- ⑤ **EXIT** The popup window will close.
- ⑥ **F1** Page ↑ / **F2** Page ↓ If the track contains the selected types of data, the data will be displayed.

### Check the tempo from a page that has no tempo display

① **TEMPO**

The standard tempo will be displayed in the message area of the screen.

If tempo changes have modified the standard tempo, the actual resulting tempo will be displayed in [ ].

You can adjust the standard tempo by holding **TEMPO** and rotating the VALUE dial.

### Check the time signature (beat)

When you press **▶/■** to playback the song, the beat indicator will blink red on the first beat, and green on other beats.

① **TRACK** **MICROSCOPE** The **[Microscope]** page will appear.

② **Track** Select a track which contains data.

Microscope		Ch		Value
Track	2			
M	1-1-0	>	P.Chg	60
		Meas	2 (Beat 4/4)	
(2)	48		C#4(61)	127
	48		G#4(68)	127
	48		F 3(52)	127
				16

The 2nd measure is in 4/4 time

③ **F1** Page ↑ / **F2** Page ↓ Display the time signature of each measure.

\* The time signature will not be displayed for measures following the measure which has the last data event in the selected track.

### Check the Timbre being played by each track

① **PLAY**

The **[Play]** page will appear.

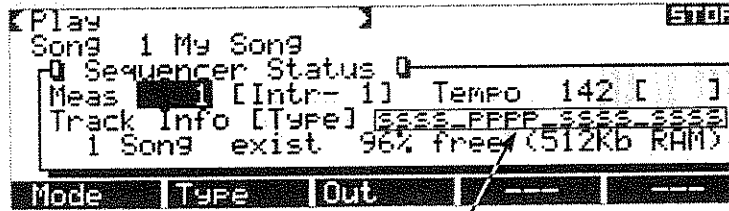
To display tracks 5 — 8, press **F1** 1 — 4/5 — 8.

Track numbers	The timbre played by the track		Measure	1	STOP
Play	1	My Song			
Song		Timbre			
[1]	1	A.Piano 1	Out	Level	Pan
[2]	62	Strings 2	Rev	109	R6
[3]	45	SynthBass 2	Rev	67	1L
[4]	24	Spike Piano	Rev	33	R3
			Rev	92	R3
1-4/5-8	Chorus	Reverb	RPS		Page



**Check the type of each track**

- ① **STATUS** The Sequencer Status popup window will appear.
- ② **F2** Type The track type of each track will be displayed in "Track Info".



Tracks 5—8 are pattern-type, other tracks are standard-type

From the left, this displays tracks 1—4, 5—8, 9—12, and 13—16.

- s a Standard-type track
- p a Pattern-type track

- ③ **EXIT** The popup window will close.

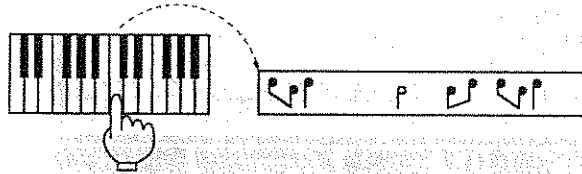
**Check MIDI output destinations for external sound source tracks**

- ① **STATUS** A popup window will open.
- ② **F3** Out Track Info will display the output status of the external sound source tracks.
- I Only INT is on
- E Only EXT is on
- X INT and EXT are on
- INT and EXT are off
- ③ **EXIT** The popup window will close.

# 5. RPS (Realtime Phrase Sequence)

## What is RPS?

The RPS (Realtime Phrase Sequence) function triggers Patterns in realtime in response to note messages received at MIDI IN. In other words, by pressing a single note on a MIDI keyboard, or striking a single MIDI pad, you can trigger an entire Pattern that you have previously created. Up to 20 keys can have Patterns assigned to them.




Patterns will be played back at the current tempo of the song, so even if you change the tempo of the song, the Pattern will playback in synchronization with the song.

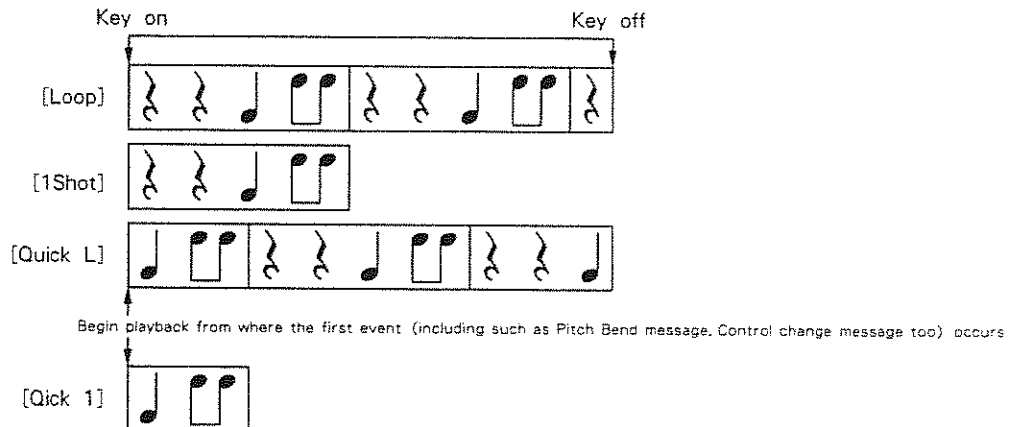
If the MIDI note message receive channel (the CTRL channel) used by the RPS function is the same as the receive channel of a track (↔ P.3-72), keys not assigned to the RPS function will play the Timbre of that track.

## Assign a Pattern to a key

Here's how to assign a previously created Pattern to a key.

- |                 |  |
|-----------------|--|
| ① <b>PLAY</b>   | The <b>Play</b> page will appear.  |
| ② <b>F4</b> RPS | The <b>Realtime PhraseSEQ</b> page will appear.  |
| ③ CTRL Channel  | Specify the channel on which note messages will be received to call Patterns. MV-30 sequencer data will not play the Patterns. If you do not wish to use the RPS function, set this "Off". |
| ④ Stop by       | When a note message of this note number is received, playback will stop for all Patterns currently being played by the RPS function.   |
| ⑤ Note #        | Specify the note number of the key that will trigger the Pattern. You can also press a key on your MIDI keyboard to specify the note, or use the numeric keys (↔ P.1-7).                   |
| ⑥ TRK           | Specify the track which contains the Pattern you wish to call.   |
| ⑦ PTRN#         | Specify the Pattern you wish to call. If there are no Patterns in the track, this will read " * * * ".   |
| ⑧ Mode          | Use the VALUE dial to specify the mode.  |

Example) For a Pattern such as 



## RPS playback

RPS Patterns can be triggered from the **[Play]** , **[Realtime PhraseSEQ]** , **[Chain Load]** , or **[Compu Mixer]** pages. It is not possible to trigger RPS Patterns while in other pages.

- ① Connect your MIDI keyboard (Q.S. ⇄ P.8).
- ② **[PLAY]** The **[Play]** page will appear.
- ③ **[F4]** RPS The **[Realtime PhraseSEQ]** page will appear.
- ④ Set the MIDI transmit channel of your MIDI keyboard to the same channel as the CTRL Channel.
- ② Move the cursor to a location other than "Note#".  
(If the cursor is located at Note#, incoming note messages will specify the note number.)
- ③ If you wish to trigger RPS Patterns while the song plays back, press **[▶/■]** to start song playback.
- ④ Press a key which has been assigned to call a Pattern.
- ③ To stop song playback, press **[▶/■]**.

\* If you have specified two or more Patterns to be called by the same note number, the settings of the line which is displayed first will be valid, and the following lines will be ignored.

If you have specified both a Pattern and "Stop by" to be called by the same note number, "Stop by" will be valid.

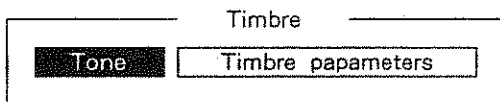
# 6. EDIT A TIMBRE

## Each track 1 — 8 plays a “Timbre”

You can select any one of 128 Timbres (or the Rhythm Timbre) as the sound to be played by each internal sound source track (1 — 8). You can also use Program Changes to change Timbres in the middle of a song (→ P.3-29).

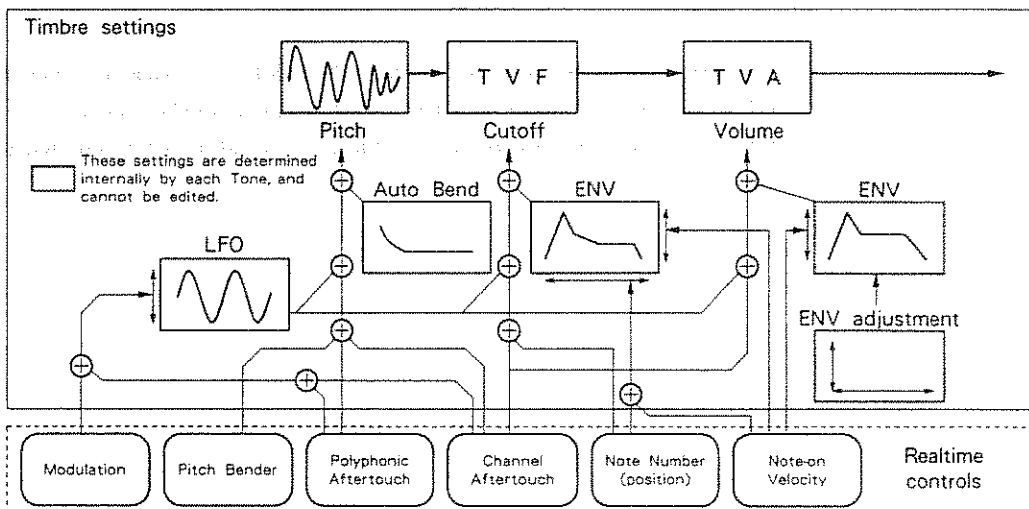
## How each Timbre is organized

Each Timbre consists of a “Tone” which provides the actual sound, and various “Parameters” which modify the sound.



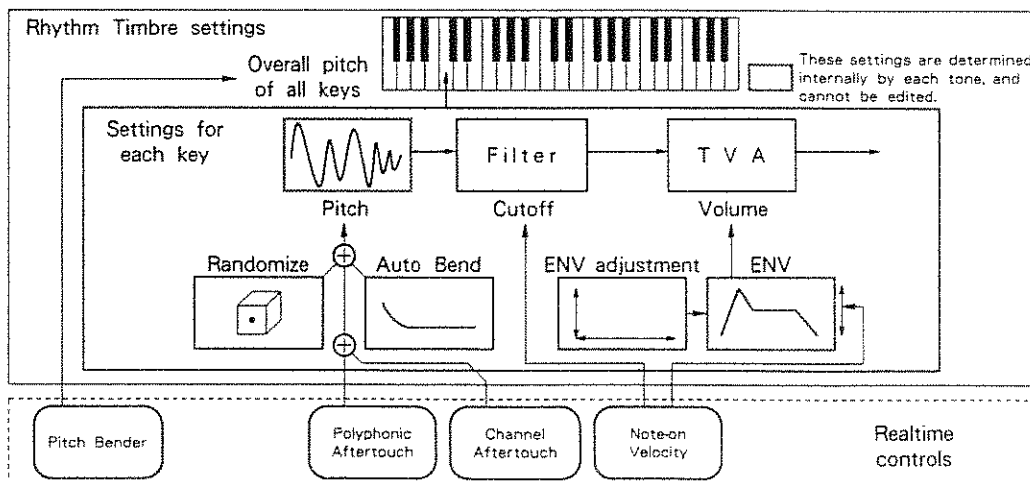
The internal memory of the MV-30 contains 128 Timbres.

You may freely select the Tone used by each Timbre, and make changes in the parameter settings.



## How a Rhythm Timbre is organized

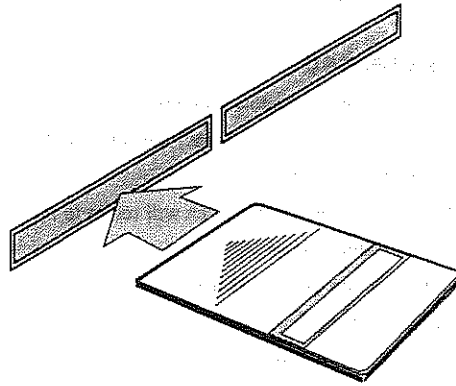
A “Rhythm Timbre” is a Timbre that produces a different sound for each note of the keyboard. You may freely specify which Tone is played by each note, and adjust the various parameters.



## Tones

The internal preset memory of the MV-30 contains 220 Tones which can be used by Timbres. The 220 Tones are divided into three groups. You can also use Tones from PCM cards sold for the MV-30, U-series, or the D-70.

INT 1	internal memory	instrumental sounds
INT 2	internal memory	synthesizer waveforms
INT 3	internal memory	rhythm sounds
U-01 —	PCM cards for the U-series	SN-U110-01 —
U-30	PCM card for the MV-30	SN-MV30-02
U-31	PCM card for the MV-30	SN-MV30-01
D-01 — 32	PCM cards for the D-70	SN-SPLA-01 — 32



Insert cards into the card slots on the rear panel. You may use either slot since inserted cards are detected automatically.

## The key ranges of each Tone

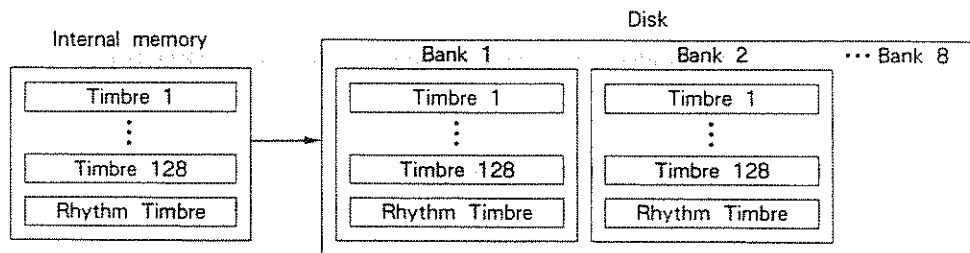
The highest note that can be produced will be different for each Tone. Every acoustic instrument has an inherent limit to the range of pitches that can be produced, and the Tones of the MV-30 have been created with this in mind.

## Editing a Timbre

Press **TIMBRE EDIT**, select the Timbre you wish to edit in the upper left of the screen, and modify the parameter values. The Rhythm Timbre is located after the 128 Timbres. To select the Rhythm Timbre using the numeric keys, press **1 2 9 ENTER**.

## Timbre Banks

Parameters for the 128 Timbres (including the number of the Tone used by each Timbre) and the Rhythm Timbre are saved to disk as a set. Each of these sets is stored in a "Timbre Bank". A disk can contain 8 Timbre Banks, and you can assign an 8-character name to each Timbre Bank.



## Adjust the pitch

\* To adjust the tuning of the entire MV-30, refer to master tuning (⇨ P.3-10).

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the Timbre (1 — 128) you wish to edit.

### Adjust the pitch in chromatic steps

- ③ Pitch Coarse Adjust the pitch in chromatic steps.

### Make fine pitch adjustments

- ③ Pitch Fine Adjust the pitch in steps of 1 cent (50 cents is 1/2 of a chromatic step).

### Detune the pitch the instant the key is pressed

- ③ **F1** Pitch The Pitch Param popup window will open.
- ④ Auto Bend Depth Specify how far (in chromatic steps) the pitch will be detuned from the standard pitch the instant the key is pressed.
- Rate Specify the time over which the pitch will return to the standard pitch. Higher values will result in a faster change.
- Mode Specify whether the pitch change will apply to 1 voice or 2 voices when a detune-type Tone is used.
- ⑤ **EXIT** The popup window will close.

### Adjust the amount of detune for detune-type Tones

- ③ **F1** Pitch The Pitch Param popup window will open.
- ④ Detune Specify how far apart the 2 voices will be detuned when a detune-type Tone is used.
- ⑤ **EXIT** The popup window will close.

### Use the pitch bender to change the pitch (Pitch Bend messages)

- ③ Bend Range Up Specify the maximum upward pitch change (in chromatic steps) that will occur when the pitch bend lever is moved all the way.
- Down Specify the maximum downward pitch change that will occur when the pitch bend lever is moved all the way.

### Use keyboard pressure to change the pitch (Aftertouch messages)

- ③ **F1** Pitch The Pitch Param popup window will open.
- ④ CAf Sens Specify the amount of pitch change in chromatic steps that will occur when you press down on a MIDI keyboard that is able to transmit Channel Aftertouch messages.
- ⑤ **EXIT** The popup window will close.

\* To receive Polyphonic Aftertouch messages, make settings for "PAf Sens".

### Add vibrato

You can use the LFO to periodically vary the pitch.

- ③ **F1** Pitch The Pitch Param popup window will open.
- ④ LFO Sens: 0—15 Higher values will result in greater pitch change.
- ⑤ Make LFO settings to determine how change will occur (⇨ P.4-32).

## Use the modulation lever to add vibrato (MIDI control change No.1)

You can move the modulation lever to increase the depth of the LFO.

- ③ **[F1]** Pitch                      The Pitch Param popup window will open.
- ④ LFO Sens: 0—15                Higher values will result in greater change.
- ⑤ **[EXIT]**                            The popup window will close.
- ⑥ **[F4]** LFO                         Make LFO settings to determine how modulation will occur (P.4-32).  
In this case, set “Depth” near 0, and “MOD Sens” near 15.

If you wish to add vibrato by pressing down on the keyboard (i.e., by Aftertouch), set “Depth” near 0, and “CAf Sens” near 15.

## Adjust the tone

- ① **[TIMBRE EDIT]**                 The **[Timbre Edit]** page will appear.
- ② Select the Timbre (1—128) you wish to edit.
- ③ **[F2]** TVF                         A popup window will open.

### Make the sound darker (more mellow)

- ④ **[F1]** Cutoff                      A popup window will open.
- ⑤ Mode                              Set this to “LPF”.
- ⑥ Cutoff: 0—127                 Lower values will result in a darker sound. If the value is too low, you will hear no sound.

### Make the sound thinner

- ④ **[F1]** Cutoff                      A popup window will open.
- ⑤ Mode                              Set this to “HPF”.
- ⑥ Cutoff: 0—127                 Higher values will result in a thinner sound with less body.

### Make the sound more distinctive

- ④ **[F1]** Cutoff                      A popup window will open.
- ⑤ Resonance: 0—127             Specify the “strength of resonance” at the cutoff point. Higher values will emphasize the cutoff frequency, making the character of the sound more distinctive.

### Make higher notes brighter

- ④ **[F1]** Cutoff                      A popup window will open.
- ⑤ Key Follow: -12—24         If this is set to a value of 12, the cutoff frequency will be adjusted to follow the pitch of the keyboard (as the key number rises one octave, the cutoff frequency will also rise one octave); and the TVF will affect all notes in the same way. For values in the area of 13—24, higher notes will be brighter. For negative ( - ) values, lower notes will be brighter.

### Use keyboard pressure to change the tone (Aftersustain messages)

- ④ **F1** Cutoff A popup window will open.
- ⑤ CAt Sens: -15—15 Specify how the cutoff point will change when you press down on a MIDI keyboard that can transmit Channel Aftersustain messages. Larger values will result in greater change. Negative ( - ) values will make the cutoff frequency move down in response to aftersustain.

### Specify how the tone will change while you hold the note

- ④ **F3** ENV Set Specify how the cutoff point will change over the time that you hold the note ( ⇨ P.4-28).

### Add “growl”

You can use the LFO to modulate the tone (cutoff point). Make LFO settings to determine how the modulation will occur ( ⇨ P.4-32).

- ④ **F1** Cutoff A popup window will open.
- ⑤ LFO Sens: 0—15 Higher values will result in greater change.

### Use the modulation lever to add “growl” (MIDI Control Change No.1)

You can move the Modulation lever to increase the depth of the LFO.

- ④ **F1** Cutoff A popup window will open.
- ⑤ LFO Sens: 0—15 Higher values will result in greater change.
- ⑥ **EXIT** The popup window will close.
- ⑦ **F4** LFO Make LFO settings to determine how modulation will occur ( ⇨ P.4-32). Set “Depth” near 0, and “MOD Sens” near 15.

If you wish to add a “growl” effect by pressing down on the keyboard (i.e., by aftersustain), set “Depth” near 0, and “CAt Sens” near 15.

### Sharpen the attack of strongly played notes

- ④ **F2** ENV CTR A popup window will open.
- ⑤ Time Vel Sens: 0—15 Higher values will result in a sharper attack for strongly played notes.

\* Depending on the level settings of the TVF ENV, there may be no effect or the opposite effect may occur.

### Make the sound brighter for strongly played notes

- ④ **F2** ENV CTR A popup window will open.
- ⑤ Depth Vel Sens: 0—15 Higher values will result in a brighter sound when you play with more force.

\* Depending on the level settings of the TVF ENV, there may be no effect or the opposite effect may occur.



## Adjust the volume

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the Timbre (1 — 128) you wish to edit.

### Adjust the volume

- ③ **Timbre Level** Adjust the volume.

### Make the volume louder for strongly played notes

- ③ **F3** **TVA** The TVA popup window will open.
- ④ **Vel Sens** Higher values will result in a greater volume difference between softly played notes and strongly played notes.  
Negative ( - ) settings will result in a softer volume as you play with more force.

### Specify how the volume will change while you hold a key

- ④ **F3** **TVA** Each Tone contains parameters that determine how the volume will change over time (from when you press a note to when you release it). It is not possible to see or edit these parameters. However, you can make adjustments relative to these settings (⇨ P.4-31).

### Use keyboard pressure to increase the volume (Aftertouch)

- ④ **F3** **TVA** The TVA popup window will open.
- ⑤ **CAf Sens** Specify how the volume will change when you press a key on a keyboard capable of transmitting Channel Aftertouch messages.  
Higher values will result in a greater volume difference between softly and strongly played notes.  
Negative ( - ) settings will result in a lower volume as you play with more force.

### To increase the attack for strongly-played notes

- ④ **F3** **TVA** The TVA popup window will open.
- ⑤ **A Rate** Higher values will result in a faster attack as you play.

### Add tremolo

You can use the LFO to modulate the volume.

- ④ **F3** **TVA** A popup window will open.
- ⑤ **LFO Sens: 0—15** Higher values will result in greater change.
- ⑥ **Make LFO settings to determine how modulation will occur** (⇨ P.4-32).

### Use the modulation lever to add tremolo (MIDI Control Change No.1)

You can move the modulation lever to increase the depth of the LFO.

- ④ **F3** **TVA** A popup window will open.
- ⑤ **LFO Sens: 0—15** Higher settings will result in greater change.
- ⑥ **EXIT** The popup window will close.
- ⑦ **F4** **LFO** Make LFO settings to determine how modulation will occur (⇨ P.4-32). In this case, set "Depth" near 0, and "MOD Sens" near 15.

If you wish to add tremolo by pressing down on the keyboard (i.e., by Aftertouch), set "Depth" near 0 and "CAf Sens" near 15.

### While editing a Timbre, check how effects are applied

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the Timbre (1 — 128) you wish to edit.
- ③ **F5** TestOut The Test Output popup window will open.
- ⑤ Output To apply chorus (reverb and chorus if the chorus setting is Pre Rev) to the Timbre being edited, set this to "Cho". To apply reverb, set this to "Rev".
- ⑥ **EXIT** The popup window will close.

These settings will have no effect when the Timbre is actually played in a song.

They are temporary settings that allow you to hear how effects will be applied to the Timbre while you edit it.

If you want to apply effects to this Timbre when it is used in a song, make appropriate settings for the "Out" parameter in the **[Play]** page.

### Copy a Timbre

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the copy destination Timbre (1 — 128).
- ③ **SHIFT**+**F1** Copy The Timbre Copy popup window will open.
- ⑤ Select the copy source Timbre (1 — 128).
- ⑥ **F1** Copy Execute the Copy operation.

### Re-arrange the order of Timbres

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select one of the Timbres (1 — 128) to exchange.
- ④ **SHIFT**+**F2** Exchange The Timbre Exchange popup window will open.
- ⑤ Select the other Timbre.
- ⑥ **F1** Exchange Execute the Exchange operation.

### Load an individual Timbre or Rhythm Timbre from disk

You can load an individually selected Timbre from disk. This is convenient when you wish to re-arrange Timbres. This will also be useful when you want to re-load a Timbre to restore the original data after it has been edited.

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the loading destination Timbre (1 — 128).  
Be aware that the previous data of this Timbre will be lost.
- ④ **SHIFT**+**F5** Load The Timbre Load popup window will open.

- ⑤ Select the Timbre you wish to load.

Bank Select the Timbre Bank on the disk.

Timbre Select the Timbre to be loaded.

If the loading destination is a Timbre 1 — 128, you will not be able to select RHY (the Rhythm Timbre). If the loading destination is the Rhythm Timbre, only RHY (the Rhythm Timbre) can be selected.

- ⑥ **F1** Load Execute the Timbre Load operation.

## Re-arrange the keys of the Rhythm Timbre

### Copy settings from one key to another key

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the Rhythm Timbre (RHY).  
If you are using the numeric keys, enter 129.
- ③ \* \* Select the copy destination key.
- ④ **SHIFT**+**F1** Copy A popup window will open.
- ⑤ Select the copy source key.
- ⑥ **F1** Copy Execute the Copy operation.

### Exchange settings between two keys

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the Rhythm Timbre (RHY).  
If you are using the numeric keys, enter 129.
- ③ \* \* Select one of the keys.
- ④ **SHIFT**+**F2** Exchange A popup window will open.
- ⑤ Select the other key.
- ⑥ **F1** Exchange Execute the Exchange operation.

## Specify whether or not effects will be applied to each key of the Rhythm Timbre

For the Rhythm Timbre, you can specify whether or not effects will be applied to each key.

- ① **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ② Select the Rhythm Timbre (RHY).  
If you are using the numeric keys, enter 129.
- ③ \* \* Select the key.
- ④ **F4** Output A popup window will open.
- ⑤ Out Assign Dry Apply no effects, and output from the MIX OUT jacks.  
Rev Apply reverb, and output from the MIX OUT jacks.  
Cho Apply chorus, and output from the MIX OUT jacks.  
Dir1 Apply no effects, and output from the DIRECT OUT1 jacks.  
Dir2 Apply no effects, and output from the DIRECT OUT2 jacks.

Dir1 and Dir2 are convenient when you wish to apply external effects to only specific notes of the Rhythm Timbre. If DIRECT OUT 1 and 2 are not connected, the sound will be output from MIX OUT just as when "Dry" is selected.

# 7. USE EXTERNAL SOUND SOURCE TRACKS

External sound source tracks differ from internal sound source tracks in that a MIDI channel 1 — 16 is specified for each data event of an external sound source track. Each internal sound source track can play only 1 instrument (Timbre) at once, but each external sound source track can play up to 16 independent instruments.

\* External sound source tracks (9—16) can contain the System Exclusive data and Tune Request data which the internal sound source tracks (1—8) cannot contain.

## Make the MV-30 determine the channel of the data that is recorded

When recording a Standard-type track

① TRACK **REALTIME** The **Realtime REC** page will appear. → ②

When recording a Pattern in realtime

① PATTERN **REALTIME** The **Ptrn RealtimeREC** page will appear.

② **F1** REC PRM The REC Param popup window will open.

③ Channelize Specify a MIDI channel 1 — 16.

If this is set to "Off", the channel of each incoming message will be recorded just as it is.

## Use the external sound source tracks to play internal sound sources

You can use the external sound source tracks (9 — 16) to play internal sound sources.

① TRACK **REALTIME** The **Realtime REC** page will appear.

② **F3** TRK PRM The Track Param popup window will open.

③ Track Select the track which will control an internal sound source. (Make sure that Mode is set to "Play".)

④ INT Set this to "On".

⑤ EXT If you do not want this track data to be transmitted from MIDI OUT, set this to "Off".

⑥ **EXIT** The popup window will close.

⑦ **PLAY** The **Play** page will appear.

⑧ **F5** Page The CH/Voice Res parameters will be displayed.

⑨ Ch Specify the receive channel of each track.

⑩ Timbre Select a Timbre for each track.

\* Use **F1** 1 — 4/5 — 8 to switch the track display.

⑪ Press **▶/■** to start playback.

## Edit the data of an external sound source track

Editing an external sound source track is the same as editing an internal sound source track, but you will also be able to specify a channel. Also, when copying data from an internal sound source track, you must specify the channel of the data.

## 8. MIDI SYNCHRONIZATION

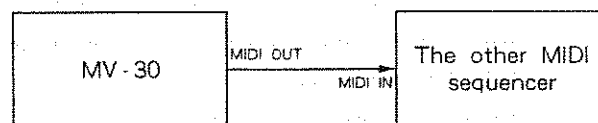
MIDI synchronization allows you to synchronize two or more MIDI sequencers or rhythm machines. When you operate the master unit (the device which is transmitting MIDI messages), the slave unit(s) (the device(s) which are receiving MIDI messages) will playback in sync with the master unit.

The following MIDI messages are used for MIDI synchronization.

◇ Clock	this message is transmitted every 1/24th of a quarter note to specify the temp
◇ Song Select	this message indicates which song was selected
◇ Song Position Pointer	this message indicates the current position within the song, in 16th note units from the beginning of the song
◇ Continue	this message indicates that playback has begun
◇ Stop	this message indicates that playback has stopped
◇ Start	this message indicates that playback has begun from the beginning of the song

### Make another sequencer playback in synchronization with the MV-30

If you are synchronizing another MIDI sequencer to the MV-30, the MV-30 is the "master" and the other sequencer is the "slave".



① Use a MIDI cable to connect the MIDI OUT of the master (MV-30) to the MIDI IN of the slave (other sequencer).

② **SYSTEM** The **[System Config]** page will appear.

③ Sync Out Set this to "On".

④ **PLAY** The **[Play]** page will appear.

⑤ **SONG SELECT** Select the song you wish to play. Check that Sync Clock is set to "INT".

⑥ **EXIT** The popup window will close.

If the slave can receive MIDI Song Select messages

When you select an MV-30 song, the slave will select the song of the same number.

If you wish to select a different song on the slave, select it after you have selected the MV-30 song.

If the slave cannot receive MIDI Song Select messages

Select the song to be played on the slave manually.

⑦ **SHIFT** + **◀◀** The MV-30 will return to measure 1.

If the slave can receive MIDI Song Position Pointer messages

The slave will automatically move to measure 1.

If the slave does not receive MIDI Song Select messages

Set the slave to measure 1 manually.

⑧ Set the slave to synchronize to MIDI clock.

Refer to the operating manual for the slave.

⑨ **▶/■**

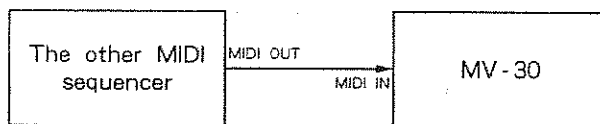
The slave will playback in synchronization with the master.

⑩ **▶/■**

Playback will stop.

## Make the MV-30 playback in synchronization with another sequencer

If you are synchronizing the MV-30 to another MIDI sequencer, the MV-30 is the "slave" and the other MIDI sequencer is the "master".



① Use a MIDI cable to connect the MIDI IN of the slave (MV-30) to the MIDI OUT of the master (the other sequencer).

② Set the master to transmit MIDI Clock messages.

Refer to the operating manual of the master.

\* In this case, the song will not playback unless MIDI Clock messages are received from MIDI IN.

If the master transmits MIDI Song Select messages

When you select a song on the master, the slave (MV-30) song of the same number will also be selected. However, the message will be ignored if there is no data in that song of the MV-30, or if a song number of 21 or higher was selected. If you wish to re-selected the MV-30 song, select it after selecting the song on the master.

If the master does not transmit MIDI Song Select messages

Manually select a song on the MV-30.

③ **SONG SELECT**

Set the Sync Clock to "MIDI".

④ **PLAY**

The **[Play]** page will appear.

If you do not want the master to play the MV-30's internal sound sources, make the following settings.

**F5** Page

Set the channel of each track to " - - " (Off).

⑤ Select the first measure of the song on the master.

If the master transmits MIDI Song Position Pointer messages

The slave (MV-30) will also be set to measure 1.

\* If the **[System Config]** page MIDI Update setting (☐ P.4-44) is On, when a Song Position Pointer message is received, all non-note data up to that location will be transmitted in rapid succession.

If the master does not transmit MIDI Song Position Pointer messages

Set the slave song position to measure 1. (**SHIFT** + **◀◀**)

⑥ Playback the song on the master.

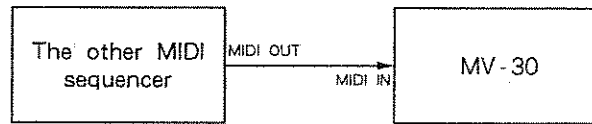
The MV-30 will play in synchronization.

⑦ Stop playback on the master.

The MV-30 will also stop playback.

## Perform synchronized recording of the data from another sequencer

If you wish to record data from another MIDI sequencer into the MV-30, the other MIDI sequencer will be the "master" and the MV-30 will be the "slave".



- ① Use a MIDI cable to connect the MIDI IN of the MV-30 to the MIDI OUT of the external MIDI sequencer.
- ② Select a song on the master.
- ③ Set the master to transmit MIDI Clock messages.  
Refer to the operating manual of the master.
- ④ **SONG SELECT** Use the numeric keys to select an empty song.
- ⑤ Name Assign a name to the song.
- ⑥ Sync Clock Set this to "MIDI".
- ⑦ TRACK **REALTIME** The [Realtime REC] page will appear.
- ⑧ Track Select the track (9—16) you wish to record.
- ⑨ REC Mode Select "Normal".
- ⑩ **F1** REC PRM A popup window will open.
- ⑪ New Measure Beat Set this to match the data of the master.  
In the [Realtime REC] page you can press the function keys to make settings for the various parameters.
- ⑫ Select the first measure of the song on the master.  
If the master can transmit MIDI Song Position Pointer messages  
The slave will also move to measure 1.  
If the master cannot transmit MIDI Song Position Pointer messages  
Set the slave song position to measure 1 manually (**SHIFT** + **◀◀**).
- ⑬ **REC** The MV-30 will enter recording standby mode.
- ⑭ Start playback of the master.  
The slave will record in synchronization.
- ⑮ Stop the master MIDI sequencer.  
Recording will stop.

\* After recording ends, set the standard tempo to the same tempo as in the master MIDI sequencer data, and input tempo change events into the Tempo track if necessary (P.3-32).

## 9. TAPE SYNC II

The MV-30 is able to playback in synchronization with an MTR (multitrack tape recorder) or VTR (video tape recorder). This allows you to combine vocals recorded on an MTR with accompaniment provided by the MV-30, or to use the MV-30 to add sound effects to video.

To synchronize the MV-30 to such devices, you must first record a "Tape Sync II" signal on the tape, and then synchronize the MV-30 to that signal as it is played back. Since the Tape Sync II signal contains data which indicates the elapsed time from the beginning of the song, the MV-30 is able to synchronize even when the tape is played back from the middle.

### Synchronize the MV-30 to an MTR (multitrack tape recorder)

By using tape sync II to synchronize the MV-30 to an MTR, you can create music that utilizes the advantages of both sequencers and MTRs.

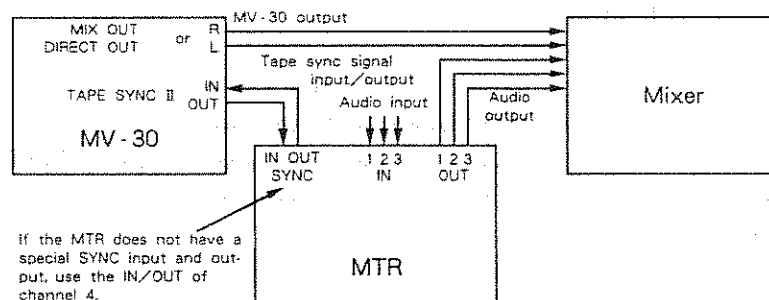
In this example we will use a four-track MTR.

#### Create song data on the MV-30

Create an accompaniment with drums and bass etc. on the MV-30. It is not possible to lengthen the song data (the number of measures) beyond where the tape sync II signal has been recorded, or to modify the tempo. Therefore, plan your song carefully.

#### Make connections

Make connections as follows. Do not use equalization or noise reduction on the MTR.





#### Record the tape sync signal onto the MTR

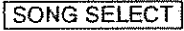



Record the Tape Sync II signal onto track 4 of the MTR.

- ① **SONG SELECT** Select the song you have created.
- ② Sync Clock Set this to "INT".
- ③ **EXIT** The popup window will close.
- ④ **SHIFT** + **◀◀** Jump to the beginning of the song.
- ⑤ **PLAY** The **[Play]** page will appear.
- ⑥ Set track 4 of the MTR to recording standby.  
On some MTRs, the sync track is fixed at track 4.
- ⑦ While the MV-30's sequencer is stopped, it will send a 'pilot signal' or 'reference tone' from the tape sync II output. With this pilot tone, adjust the MTR's recording level to about -10 - -3 VU.  
Some MTRs are able to set the correct level automatically.



- ⑧ Begin recording on the MTR.  
Record the pilot signal of the MV-30 for about ten seconds.
- ⑨  Playback the MV-30 song.  
The MV-30 will output a Tape Sync II signal.
- ⑩ Make sure that the MV-30 song has stopped completely.  
(The  LED has gone out, and the beat indicator has also stopped.)
- ⑪ Stop recording on the MTR.  
If the Tape Sync II signal is missing from even a short section of the tape, synchronization will not be possible. Be careful not to erase the Tape Sync II signal.


Check whether the tape sync II signal was correctly recorded on the MTR.

- ① Rewind the MTR to the beginning of the tape.
- ②  A popup window will open.
- ③ Sync Clock Set this to "Tape". Unless a Tape Sync II signal is received, the song will not playback.
- ④  The popup window will close.
- ⑤  The MV-30 will standby for playback. (The  LED will blink.)
- ⑥ Start playback on the MTR. Check that the MV-30 song plays back.

**\* If the MV-30 song does not playback, raise the output level of the Tape Sync II signal.**




When the MTR plays to the end of the song, the MV-30 will also stop.

To stop playback in the middle of the song, stop the MTR.



- ⑦ Partially rewind the MTR, and playback again.  
Check that the MV-30 song plays back in synchronization. (In this case, it will take a bit of time for the MV-30 song to start.)  
**\* If the [System Config] page MIDI Update setting (☐ P.4-44) is On, when the tape is played back from the middle, all non-note data up to that location will be transmitted in rapid succession, and then playback will begin in synchronization with the tape.**
- ⑧  The MV-30 will exit play standby mode and return to the previous state.

## Record audio tracks on the MTR

While listening to the accompaniment of the MV-30, record audio tracks on the MTR.

- ①  The MV-30 will enter playback standby mode. (The  LED will blink.)
- ② Rewind the MTR to the beginning of the tape.
- ③ Set an audio recording track (1 — 3) of the MTR to recording standby mode.
- ④ Start recording audio on the MTR.  
The MV-30 will playback in synchronization.
- ⑤ While listening to the MV-30 song, record vocals etc. on the MTR.  
When the MTR has played to the end of the song, the MV-30 will also stop.
- ⑥ Stop recording on the MTR.  
Repeat steps ②—⑥ to record the remaining tracks and complete your song.
- ⑦  The MV-30 will exit play standby mode and return to the previous state.

Check whether the tracks were recorded correctly.

- ① Rewind the MTR to the beginning of the tape.
- ②  The MV-30 will enter playback standby mode. (The  LED will blink.)
- ③ Playback the MTR. The MV-30 song will playback in synchronization with the MTR.
- ④ When the MTR has played back to the end of the song, the MV-30 will stop.

If you wish to stop in the middle of the song, stop the MTR.

Even if you rewind the MTR to somewhere in the middle of the tape and then start playback, the MV-30 song will synchronize from the correct position.

(In this case it will take a bit of time for the MV-30 song to start.)

\* If the **【System Config】** page MIDI Update setting (☞ P.4-44) is On, when the tape is played back from the middle, all non-note data up to that location will be transmitted in rapid succession, and then playback will begin in synchronization with the tape.

- ⑤  The MV-30 will exit play standby mode and return to the previous state.

\* If the MV-30 song is not played back, raise the output level of the Tape Sync II signal.

## Synchronize to a stereo cassette recorder

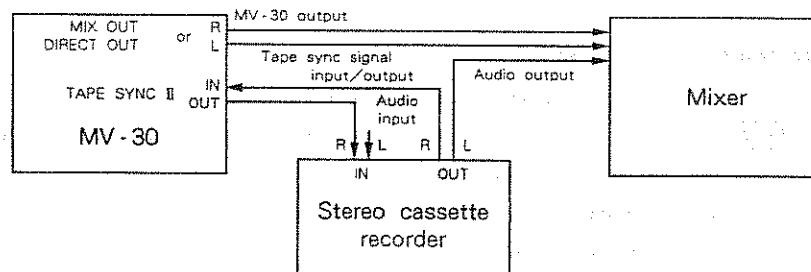
Conventional stereo cassette recorders are not able to record left and right channels independently. This means that you will have to record the audio signal at the same time as the Tape Sync II signal. This is the main difference from MTR recording.

### 1. Create song data on the MV-30

Create an accompaniment with drums and bass etc. on the MV-30. It is not possible to lengthen the song data (the number of measures) after the tape sync II signal has been recorded, or to modify the tempo. Therefore, plan your song carefully.


### 2. Make connections

Make connections as follows. Do not use the noise reduction of the stereo cassette recorder.



### 3. Record the tape sync II signal and audio onto the cassette

We will record the Tape Sync II signal onto the right channel of the cassette tape, and record the audio signal onto the left channel.

- ① **SONG SELECT** Select the song you have created.
- ② Sync Clock Set this to "INT".
- ③ **EXIT** The popup window will close.
- ④ **SHIFT** +  Jump to the beginning of the song.

- ⑤ **PLAY** The **[Play]** page will appear.
- ⑥ Set the cassette recorder to recording standby.
- ⑦ While the MV-30 sequencer is stopped, it will send a 'pilot signal' from the tape sync II output. Adjust the recording level of the right channel to about -10 - -3 VU.  
Send the audio signal into the left channel, and adjust the recording level.  
Some stereo cassette recorders are able to set the correct level automatically.
- ⑧ Begin recording on the stereo cassette recorder.  
Record the pilot signal of the MV-30 for about ten seconds.
- ⑨ **▶/■** Playback the MV-30 song.  
The MV-30 will output a Tape Sync II signal.  
Record the audio into the stereo cassette recorder while you listen to the MV-30 playback.
- ⑩ Make sure that the MV-30 song has stopped completely.  
(The **▶/■** LED has gone out, and the beat indicator has also stopped.)
- ⑪ Stop recording on the stereo cassette recorder.  
If the Tape Sync II signal is missing from even a short section of the tape, synchronization will not be possible. Be careful not to erase the Tape Sync II signal.

Check whether the tape sync II signal was correctly recorded on the stereo cassette recorder.

- ① Rewind the cassette to the beginning of the tape.
- ② **SONG SELECT** A popup window will open.
- ③ Sync Clock Set this to "Tape". Unless a Tape Sync II signal is received, the song will not playback.
- ④ **EXIT** The popup window will close.
- ⑤ **▶/■** The MV-30 will standby for playback. (The **▶/■** LED will blink.)
- ⑥ Start playback on the cassette recorder.  
Check that the MV-30 song plays back.

**\* If the MV-30 song does not playback, raise the output level of the cassette recorder.**

**When the cassette plays to the end of the song, the MV-30 will also stop.**

To stop playback in the middle of the song, stop the cassette recorder.

- ⑦ Partially rewind the cassette, and start playback again.  
Check that the MV-30 song plays back in synchronization.  
(In this case, it will take a bit of time for the MV-30 song to start.)  
**\* If the **[System Config]** page MIDI Update setting ( P.4-44) is On, when the tape is played back from the middle, all non-note data up to that location will be transmitted in rapid succession, and then playback will begin in synchronization with the tape.**
- ⑧ **▶/■** The MV-30 will exit play standby mode and return to the previous state.

## Synchronize with a VTR (video tape recorder) to add sound effects

If you have a VTR (video tape recorder) that has an "Overdubbing" function, you can use the MV-30's tape sync function to add sound effects to the video.

\*Overdubbing is a function that allows you to re-record only the audio while preserving the video that was previously recorded.

When using the overdubbing function on a video deck that has HiFi audio tracks, overdubbing will be performed on the normal audio track, and the HiFi audio tracks will not be erased. This allows you to add sound effects while preserving both the original video and audio. It is possible to overdub music you created on the MV-30, but since the audio quality will suffer somewhat, this is not advisable

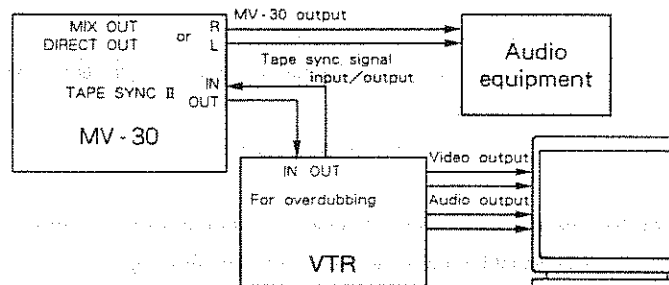
### 1. Create blank song data on the MV-30

Measure the time of the video recording, and create a blank song (a song that contains no data) longer than that time. Select any track, and enter recording mode. If the video recording is long, you can record at a fast tempo, and slow down the tempo later.

You can also use TRACK **MICROSCOPE** → **INS** to insert any event (other than a Note) in the appropriate location.

### 2. Make connections

Connect the input and output of the VTR's overdubbing track (on a HiFi deck, the normal audio track) as shown in the following diagram.



### 3. Record the tape sync signal onto the VTR

Record the Tape Sync II signal onto the overdubbing track of the VTR (on a HiFi deck, the normal audio track).

- ① **SONG SELECT** Select the song you have created.
- ② Sync Clock Set this to "INT".
- ③ **EXIT** The popup window will close.
- ④ **SHIFT** + **◀◀** Jump to the beginning of the song.
- ⑤ **PLAY** The **[Play]** page will appear.
- ⑥ Rewind the video tape to a point before where you want to add sound effects.
- ⑦ Refer to the VTR manual and begin overdubbing.
- ⑧ **▶/■** Playback the MV-30 song.  
The MV-30 will output a Tape Sync II signal.
- ⑨ When the video to which you will add sound effects is over, press **▶/■** to stop the MV-30 song.
- ⑩ Stop overdubbing on the VTR.

Check whether the tape sync II signal was recorded (overdubbed) correctly.

- ① Rewind the VTR to the beginning of the tape
- ② **SONG SELECT** A popup window will open.
- ③ Sync Clock Set this to "Tape".  
Unless a Tape Sync II signal is received, the song will not playback.
- ④ **EXIT** The popup window will close.
- ⑤ **▶/■** The MV-30 will standby for playback. (The **▶/■** LED will blink.)
- ⑥ Start playback on the VTR. Check that the MV-30 song plays back. (The **▶/■** LED blinks, and the BEAT indicator marks the beats.)  
When the Tape Sync II signal from the VTR ends, the MV-30 will also stop.  
To stop playback in the middle of the song, stop the VTR.
- ⑦ **▶/■** The MV-30 will exit play standby mode and return to the previous state.

#### 4. Record sound effects on the MV-30

While synchronizing the MV-30 to the VTR, record sound effects on the MV-30. Roland sound library card SN-U110-11 (sold separately) contains many high-quality sound effects such as waves, rain, thunder, cars, and doors. By assigning Tones from this PCM card to the keys of the Rhythm Timbre, you can play your MIDI keyboard to create sound effects.

- ① Connect your MIDI keyboard to the MV-30 (Q.S. ⇨ P.8).
- ② **TIMBRE EDIT** The **[Timbre Edit]** page will appear.
- ③ **1 2 9 ENTER** Select the Rhythm Timbre.
- ④ Make settings for the Rhythm Timbre. If you are using sound library card SN-U110-11, set the Tone Media for each key to U-11.
- ⑤ **TRACK REALTIME** The **[Realtime REC]** page will appear.
- ⑥ Track Select track 8. (Any of internal sound source tracks 1—8 is available.)
- ⑦ Timbre Select **RHY**. (**1 2 9 ENTER**)
- ⑧ REC Mode If you want the newly recorded data to replace the existing data, select Normal.  
If you want to combine the newly recorded data with the existing data, select Mix.
- ⑨ Make settings in this page and in the **[Realtime REC]** page to prepare for recording.

Rewind the video tape to a point before where you want to add the sound effects, and practice playing the MIDI keyboard while you watch the video.

Now go ahead and actually record the sound effects.

- ① Rewind the VTR tape to a location before where you want to add the sound effects.
- ② **REC** The MV-30 will enter recording standby. (The **REC** and **▶/■** LEDs will blink.)
- ③ Playback the VTR. The MV-30 will begin recording.  
While you watch the video monitor, play the keyboard to record sound effects.  
When the Tape Sync II signal from the VTR ends, the MV-30 will stop recording.

Check whether the recording was OK.

- ① Rewind the VTR tape to a location before where you recorded the sound effects.
- ② **▶/■** The MV-30 will enter playback standby. (The **▶/■** LED will blink.)
- ③ Start playback of the VTR. The MV-30 will playback in synchronization.  
When the Tape Sync II signal from the VTR ends, the MV-30 will stop playback.
- ④ **▶/■** The MV-30 will exit play standby mode and return to the previous state.

If the sound effects were not recorded in the precise location that you wanted, use the Microscope editing functions of the MV-30 to adjust the location (⇨ P.3-22).

## Modifying song data in synchronization with an MTR, cassette, or VTR

It is possible to re-record or edit data while the MV-30 plays back in synchronization with a tape.

### 1. Record adjustments in MV-30 volume level

You can record compu-mix data while you playback in synchronization with a tape. In this example we will record the volume adjustments you make using the faders.

- ① **COMPU MIX** The **[Compu Mix]** page will appear.
- ② If the message area does not read "INT Level", press **[F1]** INT Lvl.  
Now you can use the faders to control the volumes of the internal sound source tracks.

First we will rehearse the mix.

- ① Rewind the tape.
- ② **MANUAL** The mixer will be in **[MANUAL]** mode. You can control the faders manually.  
or **COMPU** The mixer will be in **[COMPU]** mode. By pressing a track key (the LED will go out), you can manually control the volume of that track.
- ③ **▶/■** The MV-30 will standby for playback. (The **▶/■** LED will blink.)
- ④ Playback the tape. The MV-30 song will playback in synchronization with the tape. Move the faders to rehearse the mix.
- ⑤ Stop the tape. The MV-30 will also stop.

Now we will record the mix.

- ① Rewind the tape.
- ② **REC** The MV-30 will standby for recording.  
(The **REC** and **▶/■** LEDs will blink.)
- ③ The track keys for the tracks whose level you will record (the LEDs will light red).  
You may record two or more tracks at once.
- ④ Place the faders at an appropriate position.
- ⑤ Playback the tape. The compu-mixer will enter recording mode.  
While listening to the song, move the faders.
- ⑥ When the tape has played to the end of the song, the MV-30 will also stop recording.

Check whether the mix is satisfactory.



- ① Rewind the tape.
- ② **▶/■** The MV-30 will standby for playback. ((The **▶/■** LED will blink.)
- ③ Playback the tape. Check that the fader movements have been recorded.
- ④ When the tape has played back to the end of the song, the MV-30 will also stop.  
If you want to stop in the middle of the song, stop the tape.
- ⑤ **▶/■** The MV-30 will exit play standby mode and return to the previous state.

## 2. Re-recording MV-30 tracks


While synchronizing to tape, it is possible to record empty tracks, or to re-record a previously recorded track.

- ① TRACK **REALTIME** The [Realtime REC] page will appear.
- ② Track Select the track you wish to re-record.
- ③ REC Mode If you want the newly recorded data to replace the existing data, select Normal.  
If you want to combine the newly recorded data with the existing data, select Mix.
- ④ In this page, you can use the function keys to make settings for recording.




First we will rehearse.

- ① Rewind the tape.
- ② If necessary, mute the previously recorded data by pressing the track key (the green LED will go out).
- ③  The MV-30 will standby for playback. (The  LED will blink.)
- ④ Playback the tape. The MV-30 song will playback in synchronization with the tape.  
Play the connected MIDI keyboard to rehearse the recording.
- ⑤ Stop the tape. The MV-30 will also stop.

Now we will record.

- ① Rewind the tape.
- ② **REC** The MV-30 will standby for recording.  
(The **REC** and  LEDs will blink.)
- ③ Playback the tape. The track will enter recording mode. While listening to the song, play the MIDI keyboard.
- ④ When the tape plays to the end of the song, the MV-30 will also stop recording.

Check that the data was recorded correctly

- ① Rewind the tape.
- ②  The MV-30 will standby for playback. (The  LED will blink.)
- ③ Playback the tape. The MV-30 song will playback in synchronization with the tape.
- ④ When the tape has played back to the end of the song, the MV-30 will also stop.  
If you want to stop in the middle of the song, stop the tape.
- ⑤  The MV-30 will exit play standby mode and return to the previous state.

# 10. COMPATIBILITY WITH OTHER DEVICES

---

## Compatibility with the W-30

### Loading W-30 song data

The MV-30 can use song data created on the Roland W-30. In the same way as when loading normal MV-30 song data, load it from the **【Load Song】** page. When a W-30 disk is inserted, the data type is automatically detected and converted into MV-30 data as it is loaded.

For details on the tracks into which the data will be loaded, refer to P.4-10.

### Saving W-30 song data

MV-30 song data can be saved on a Roland W-30 disk. In the same way as for a normal MV-30 song, save it from the **【Save Song】** page. When a W-30 disk is inserted, the data type is detected automatically, and the data is converted into the appropriate format as it is saved.

For details on the tracks to which the data will be saved, refer to P.4-14.

## Compatibility with the MRC series

### Loading MRC series song data

The MV-30 can use song data created on the Roland MRC-500 (MC-500), MRC-300 (MC-300), and SUPER-MRC (MC-500mk II /MC-50). In the same way as when loading normal MV-30 song data, load it from the **【Load Song】** page. When an MRC disk is inserted, the data type is automatically detected and converted into MV-30 data as it is loaded.

For details on the tracks into which the data will be loaded, refer to P.4-11.

### Saving SUPER-MRC song data

MV-30 song data can be saved on a SUPER-MRC (MC-500mk II /MC-50) disk.

In the same way as for a normal MV-30 song, save it from the **【Save Song】** page. When a SUPER-MRC disk is inserted, the data type is detected automatically, and the data is converted into the appropriate format as it is saved.

For details on the tracks to which the data will be saved, refer to P.4-14.

## Compatibility with the SYS series (sequencers for S-series samplers)

### Loading SYS series song data

The MV-30 can use song data created on SYS series sequencers (SYS-503, 333, 553) of Roland's S-series. In the same way as when loading normal MV-30 song data, load it from the **【Load Song】** page. When an SYS disk is inserted, the data type is automatically detected and converted into the MV-30 format as it is loaded.

For details on the tracks into which the data will be loaded, refer to P.4-11.



## Compatibility with standard MIDI files

The standard MIDI file format was created to allow transfer of data between different makes of sequencers. Song data can be transferred from one sequencer to another by using the standard MIDI file format. Many of the sequencers produced today are able to use standard MIDI files.

The MV-30 is able to use two types of standard MIDI files; format 0 (the data contains one track, which contains data of one or more MIDI channels), and format 1 (the data contains an unlimited number of tracks, and each track contains data of one or more MIDI channels). Some sequencers are able to use only one of these formats, so be careful when specifying the format for file conversion.

### Loading a standard MIDI file

- ① Insert a disk containing a standard MIDI file into the disk drive.
- ② **DISK** The **【Disk Menu (1)】** page will appear.
- ③ **F5** Page The **【Disk Menu (2)】** page will appear.
- ④ **F1** LD MIDI The **【Load MIDI File】** page will appear.
- ⑤ [ ]> Select a song number for the loading destination.
- ⑥ → Select the standard MIDI file you wish to load.
- ⑦ **F1** Load A popup window will open.
- ⑧ **F1** Load Execute the Load operation.
- ⑨ **EXIT** You will return to the **【Disk Menu (2)】** page.

For details on the tracks into which the data will be loaded, refer to P.4-16.

### Saving a standard MIDI file

- ① Insert a disk containing a standard MIDI file into the disk drive.  
Make sure that the protect tab is in the "WRITE ENABLE" position.
- ② **DISK** The **【Disk Menu (1)】** page will appear.
- ③ **F5** Page The **【Disk Menu (2)】** page will appear.
- ④ **F2** SV MIDI The **【Save MIDI File】** page will appear.
- ⑤ [ ]> Select the song number you wish to save.
- ⑥ File Name Specify a file name of up to 8 characters.  
If you enter 9 or more characters, the extra characters will be ignored. The filename will be given an extension of ".MID", and this cannot be modified. Any spaces in the filename will converted to baseline dash characters "\_".
- ⑦ Format Specify the format of the data.
- ⑧ **F1** Save A popup window will open.
- ⑨ **F1** Save Execute the Save operation.
- ⑩ **EXIT** You will return to the **【Disk Menu (2)】** page.

For details on the tracks into which the data will be saved, refer to P. 4-17.

Tracks are handled differently when saving a MIDI file than when loading a MIDI file. If you save an MV-30 song as a MIDI file and then load it again, the track configuration will not be the same as before.

## Load an MT-32 MRC song into the MV-30 to play internal sound sources

Song data that was created on MC series sequencers to play the Roland MT-32 can be loaded into the MV-30 (and achieve musically similar results).

\*The MT-32 has 8 parts and a Rhythm Part. However, the MV-30 has a total of 8 internal sound sources, so if all parts of the MT-32 were used, the MV-30 will be one part short.

### Loading an MRC series song

- ① Insert the MRC series disk into the disk drive.
  - ② **DISK** The **[Disk Menu (1)]** page will appear.
  - ③ **F1** LD Song The **[Load Song]** page will appear.
  - ④ **[ ]>** Select a song number for the loading destination.
  - ⑤ **→** Select the song you wish to load.
  - ⑥ **F1** Load Execute the Load operation.
  - ⑦ Remove the MRC series disk from the disk drive.
- You will return to the **[Disk Menu (1)]** page.

### Load a Timbre Bank compatible with the MT-32

Load a Timbre Bank that has been arranged according to the program change numbers of the MT-32. The Timbre data that was previously in internal memory will be lost. If you wish to keep the previous Timbre data, save it to disk first.

- ① Insert the disk included with the MV-30.
- ② **F2** LD Timb The **[Load Timbres]** page will appear.
- ③ Bank If you have inserted Roland sound library cards SN-MV30-S1 (01 and 02) into the MV-30, select 8. Otherwise, select 7.
- ④ **F1** Load The Timbres will be loaded.

### Make settings for track output and internal sound sources

- ① **TRACK** **REALTIME** The **[Realtime REC]** page will appear.
- ② **F3** TRK PRM The Track Param popup window will appear.
- ③ Track Select an external sound source track.
- ④ INT Set this to "On".
- ⑤ EXT Set this to "Off".

Repeat steps ④—⑤ for each of the external sound source tracks.

- ⑥ **EXIT** The popup window will close.
- ⑦ **PLAY** The **[Play]** page will appear.
- ⑧ **F5** Page The Ch/Voice Res parameters will be displayed.
- ⑨ Ch Set this to the same MIDI channels as the MT-32. The MT-32 will be in one of the following two settings.

Part	1	2	3	4	5	6	7	8	Rhythm
Channel	2	3	4	5	6	7	8	9	10

Part	1	2	3	4	5	6	7	8	Rhythm
Channel	1	2	3	4	5	6	7	8	10

If necessary, make settings for chorus and reverb. Set the volume, output, and pan of each track.

- ⑩ **▶/■** Playback.

# 11. OTHER

## Delete a song from disk

- ① Insert the disk which contains the song you wish to delete into the disk drive.  
Make sure that the protect tab of the disk is in the "WRITE ENABLE" position.
- ② **DISK** The **【Disk Menu (1)】** page will appear.
- ③ **SHIFT**+**F1** Delete The **【Delete Song】** page will appear.
- ④ → Select the song you wish to delete.
- ⑤ **F1** Delete A popup window will open.
- ⑥ **F1** Delete Execute the Delete Song operation.
- ⑦ **EXIT** Return to the **【Disk Menu (1)】** page.

## Format a disk for the MV-30

Here's how to format a disk for the MV-30. Be aware that this will erase all data on the disk.

- ① **DISK** The **【Disk Menu (1)】** page will appear.
- ② **F5** Page The **【Disk Menu (2)】** page will appear.
- ③ **F3** Format The **【Format】** page will appear.
- ④ Insert the disk into the disk drive.  
Make sure that the protect tab of the disk is in the "WRITE ENABLE" position.
- ⑤ Label When formatting a disk, you can assign a disk label (name) of up to 11 characters.  
(Name input ⇨ P.1-6)

If you wish to save the System program so that the disk can be used as a System disk,

- ⑥ **F1** Sys Disk After formatting the disk, the System will be saved. A popup window will open, asking you for confirmation.

If you do not wish to save the System program (to leave more room for song data storage),

- ⑥ **F2** Data Disk The disk will only be formatted. A popup window will open, asking you for confirmation.
- ⑦ **F1** Format Execute the Format operation. When the operation is finished, the display will read "Complete".
- ⑧ **EXIT** Return to the **【Disk Menu (2)】** page.

## Copy a disk

Here's how to copy an MV-30 disk. When you execute the Disk Copy operation, all song data in internal memory will be lost. If you wish to keep this data, save it to a different disk. The contents of the disk will be copied in three passes. Be sure to follow the screen prompts and insert the correct disk for each pass.

- ① **DISK** The **【Disk Menu (1)】** page will appear.
- ② **F5** Page The **【Disk Menu (2)】** page will appear.
- ③ **F4** Dsk Copy The **【Disk copy】** page will appear.
- ④ "Insert Source Disk" Insert the copy source disk into the disk drive with the protect tab set to the "PROTECT" position.
- ⑤ **F1** Execute A popup window will open, and the display will read "Loading".
- ⑥ "Insert Destination Disk" Remove the disk, and insert the copy destination disk.  
The copy destination disk does not need to have been formatted for the MV-30.  
Make sure that the protect tab of the copy destination disk is in the "WRITE ENABLE" position.

- 
- ⑦ **F1** Execute                      A popup window will open, and the display will read "Saving".
  - ⑧ When the display reads "Insert Source Disk", repeat steps ④—⑦ twice. When the display reads "Complete", the disk copy operation has been completed.
  - ⑨ **EXIT**                              Return to the **【Disk Menu (2)】** page.

### **Saving the System configuration**

If you save the settings of the **【System Config】** page to a disk which contains the System, those settings will be restored the next time you start up the System using that disk.

- ① **SYSTEM**                              The **【System Config】** page will appear.
- ② Make parameter settings.
- ③ Insert the System disk onto which you want to save the settings.  
Make sure that the protect tab is in the "WRITE ENABLE" position.
- ④ **F1** Save                                Execute the Save operation.  
(The System configuration of the disk will be rewritten.)

### **Use another sequencer to play the MV-30 internal sound source**

Make MIDI receive channel settings for the internal sound source tracks.

- ① Use a MIDI cable to connect the MIDI OUT of a MIDI device (keyboard, sequencer, etc.) to the MIDI IN of the MV-30.
- ② **PLAY**                                      The **【Play】** page will appear.
- ③ **F5** Page                                 The parameter display will change to Ch/Voice Res.
- ④ Ch                                         Specify the receive channel of each track.
- ⑤ Timbre                                    Select the Timbre to be played by each track. To display tracks 5—8, press **F1** 1—4/5—8.
- ⑥ Play the external MIDI device.

# Chapter 4

## Function Reference

Chapter 4

<b>PLAY</b> P.4-2	<b>CHAIN LOAD</b> P.4-8	<b>DISK</b> P.4-10
<b>COMPU MD</b> P.4-20	<b>TIMBRE EDIT</b> P.4-23	<b>SYSTEM</b> P.4-44
<b>REAL TIME</b> P.4-46	<b>MICRO SCOPE</b> P.4-54	<b>EDIT</b> P.4-61
<b>REAL TIME</b> P.4-64	<b>MICRO SCOPE</b> P.4-68	<b>EDIT</b> P.4-90

SEQUENCER				
<b>SONG SELECT</b> P.4-100	<b>STATUS</b> P.4-102	<b>LOCATE</b> P.4-104	<b>MARK</b> P.4-105	<b>TEMPO</b> P.4-106

In this manual, {

- Song** indicates a Song parameter
- Sys** indicates a System Configuration parameter
- Timb** indicates a Timbre Bank parameter
- Chain** indicates a Chain Load Setting parameter

}

# 1. PLAY

## [Play]

Track number

The timbre played by the track

Track number	Timbre	Out	Level	Pan
[1]	1 A. Piano 1	Dry	127	
[2]	2 A. Piano 2	Dry	127	
[3]	3 A. Piano 3	Dry	127	
[4]	4 Honky Tonk	Dry	127	

1-4/5-8 Chorus Reverb RPS Page

Switch the track display

### Song

(the selected song) [1]—[20]  
 Rotate the VALUE dial to select song numbers which contain data. By using the numeric keys, you can select song numbers which do not contain data. If you wish to record a new song, use the numeric keys.

When you select a song, a popup window will appear if the song and timbre data do not match. You will have to load the Timbre settings.

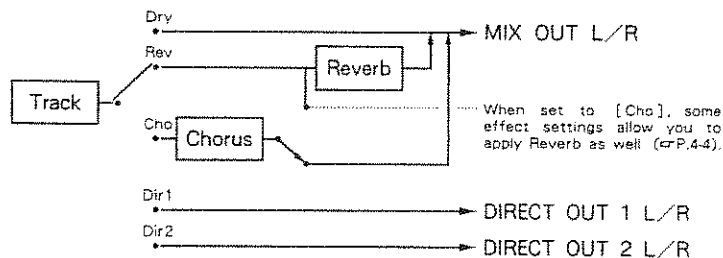
### Timbre

(The timbre played by each track) Song [1]—[128], [RHY]  
 Select the Timbres and Rhythm Timbre to be played by each track.

Timbre numbers correspond to program change numbers. It is not possible to change the Rhythm Timbre by a program change, however.

### Out

(Output assign) Song [Dry], [Rev], [Cho], [Dir1], [Dir2]  
 Specify how the effects will be applied and how the sound will be output.



Settings for the Rhythm Timbre are made separately for each rhythm instrument, and cannot be set here (P.4-42).  
 Even if this parameter is set to "Dir1" or "Dir2", if the rear panel direct out jacks are not plugged in, the sound will be sent from the mix out jacks just as when "Dry" is selected.

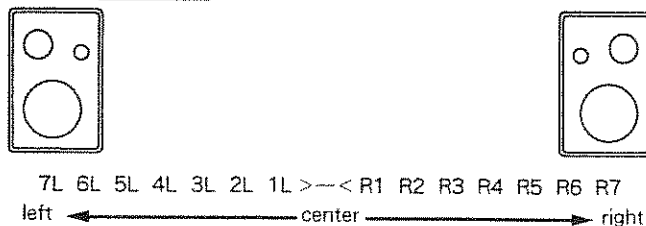
### Level

(Output level) Song [0]—[127]  
 Specify the output volume. After pressing MANUAL, you can use the faders to control Level. (Q.S. P.14)

### Pan

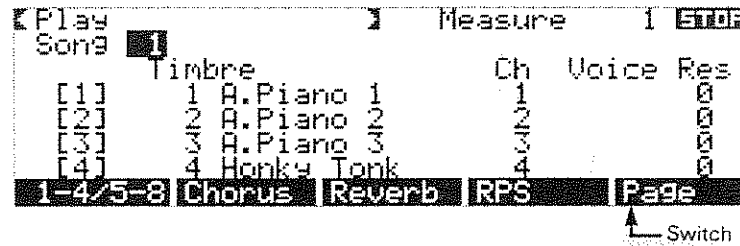
(Pan) Song [7L](left)—[>—<](center)—[R7](right), [RND](random)  
 Specify the pan (stereo position) of the sound. When set to RND, the pan position will change randomly for each note. In the [Compu Mixer] page, press F2 and then press MANUAL, and you can use the faders to control Pan.

Settings for the Rhythm Timbre are made separately for each rhythm instrument, and cannot be set here (P.4-42).



**F5** Page

This selects the parameter display page. The page will change each time you press the button.



**Ch**

(Receive channel) **Song** [1]—[16], [—](off)

Specify the receive channel for when you wish to play the sounds (Timbres) of the internal sound source track from MIDI messages (either from MIDI IN or from the external sound source tracks).

If you don't want a track to be played by MIDI, turn it off here.

**Voice Res**

(Voice reserve) **Song**

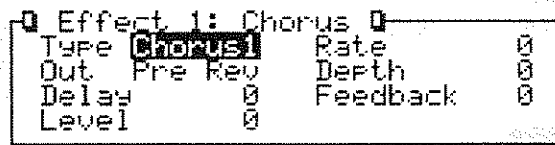
The MV-30 is able to produce up to 30 notes simultaneously. If more notes than this are requested, one of the currently-sounding notes will be turned off, and the newly requested note will sound. The Voice Reserve settings allows you to reserve a minimum number of notes for each track to prevent musically important parts from being accidentally cut.

It is not possible to make Voice Reserve settings totaling more than 30 notes. As you make settings, be aware of how many notes you have left.

Set the Voice Reserve of unused tracks to 0.

**F2** Chorus

The Chorus window will open.



Specify how the chorus effect will be applied when [cho] (chorus) is selected as the Output Assign setting.

**Effect**

(Effect patch select) **Song** [1]—[5]

Select the Effect Patch.

**Type**

(Chorus/flanger type) **Song**

[Chorus1], [Chorus2], [FB-cho], [Flanger], [S. Delay]

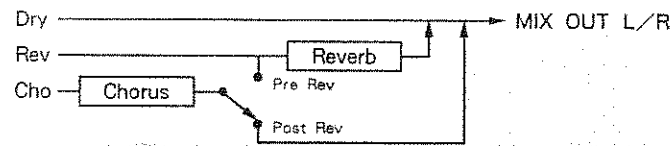
Select the chorus type.

Chorus1	A spacious and rich effect
Chorus2	A deep ensemble effect, especially good for making strings richer
FB-cho	An effect mid-way between chorus and flanger
Flanger	A unique effect in which overtones change dramatically, especially effective for Tones containing many upper partials, such as HEAVY.EG
S. Delay	Short delayed repeats

**Out**

(Output mode) **Song** [Pre Rev], [Post Rev]

If [Pre Rev] is selected, both chorus and reverb can be applied to tracks set to [Out] = [cho] (chorus). If [Post Rev] is selected, only chorus will be applied.



**Delay**

(Delay time) **Song** [0]—[31]

Specify the delay time of the chorus/flanger.

Type	The result of the delay time value
Chorus1, Chorus2, FB-cho	Higher delay time values will create a more spacious sound.
Flanger	Lower delay time values will create a stronger flanging effect, and higher values will create a more chorus-like effect.
S. Delay	The delay time will determine the interval of the echoes.

**Level**

(Chorus/flanger level) **Song** [0]—[31]

Specify the volume of the effect.

**Rate**

(Chorus/flanger rate) **Song** [0]—[31]

Specify the modulation speed of the chorus/flanger.

This parameter has no effect if the Type is set to S.Delay.

**Depth**

(Chorus/flanger depth) **Song** [0]—[31]

Specify the depth of the chorus/flanger effect.

This parameter has no effect if the Type is set to S.Delay.

**Feedback**

(Feedback) **Song** [- 31]—[31]

Specify the amount of feedback for the flanger or delay. Positive (+) or negative (-) values will result in opposite phase, and the effect will change.

Type	The result of the feedback value
Flanger, FB-cho	Feedback will affect the character of the sound.
S. Delay	Feedback will affect the number of echoes.
Chorus1, Chorus2	The feedback value will have no effect.

**F3 Reverb**

The Reverb window will open.



Specify how reverb will be applied when the track output assignment is set to [Rev] (reverb).



**Effect** (Effect patch select) **Song** [1]—[5]

Select the Effect Patch.

**Type** (Reverb/delay type) **Song**  
 [Room 1]—[Room 3], [Hall 1], [Hall 2], [Gate], [Delay], [X-Delay]

Specify the type of reverb/delay

Room 1—3	Well-defined and spacious reverb
Hall 1, 2	Slower reverb, with greater depth than Room
Gate	Gated (sharply muted) reverb
Delay	Conventional delay
X-Delay	Delayed repeats are panned to left and right

**Time** (Reverb/delay time) **Song** [0]—[31]

Specify the reverberation time.

☐ If the Type is Delay or X-Delay, this will determine the delay time.

**Level** (Reverb/delay level) **Song** [0]—[31]

Specify the volume of the reverb (delay) sound.

**Feedback** (Feedback) **Song** [0]—[31]

Specify the number of times the delay sound will repeat.

☐ This parameter is valid only if the Type is set to Delay or X-Delay.

**■ Effect Patches**

A set of the above chorus and reverb settings is called an "Effect Patch", and 5 different Effect Patches can be stored in a song.

An Effect Patch can be selected instantly from the **[Compu Mixer]** page. This selection can also be recorded in the mixer track (☐ P.3-30).

If you wish to select another Effect Patch and modify its settings, move the cursor to the top line of the popup window (for chorus and reverb settings) and select the Patch.

☐ The MV-30 contains only one effect system, so it is not possible to set one track to use Effect Patch 1 and another track to use Effect Patch 2. When you select an Effect Patch, it will apply to all selected sounds.

Place the cursor here

```

    Effect 1: Chorus
    Type Chorus1 Rate 0
    Out Pre Rev Depth 0
    Delay 0 Feedback 0
    Level 0
    
```

**SHIFT + F1**  
**Load**

The Load Song window will open.

```

    Load Song 1:[
    -> Above&Beyond by L.Garcia 17%
    Do Not Hesitate. by M.Saitoh 17%
    ]
    
```

This function allows you to load a song.

☐ The same function exists in the **[Load Song]** page (☐ P.4-10).

## Load Song

Select a song number as the loading destination.

[1]—[20]

→

Select the song you wish to load.

**[F1]** Load      The Timbre Bank you specified when saving the data will also be loaded (☞ P.4-13).

**[F2]** Sng Only      Only the song will be loaded.

## 【Realtime Phrase SEQ】

### **[F4]** RPS

From the **[Play]** page, press **[F4]** and the RPS (Realtime Phrase Sequence) display page will appear.

When the specified note on the specified channel is received by the MV-30, it will play the assigned Pattern. In this display page you can specify which Pattern will be played by which key. Twenty keys can be assigned.

☞ The Pattern will be played at the current tempo (the tempo that is displayed when you press **[TEMPO]**).

The Pattern which is called

【Realtime PhraseSEQ】						STOP
CTRL Channel	Note #	TRK	PTRN	Name	Mode	
[ 1 ]	C 2 ( 36 )	16	1	[R-PTN001]	1Shot	
[ 2 ]	D 2 ( 38 )	16	2	[R-PTN002]	Loop	
[ 3 ]	E 2 ( 40 )	16	3	[R-PTN003]	Quick	
[ 4 ]	F 2 ( 41 )	16	4	[R-PTN004]	Quick	

Page ↑ | Page ↓ |      |      |      |      |

The key which will call the Pattern

Mode

Use **[F1]** Page ↑ and **[F2]** Page ↓ to scroll up/down the chart.

### CTRL Channel

(Control channel) **Song** [Off], [1]—[16]

Specify the channel whose note messages will trigger the pre-recorded Patterns. If [Off] is selected, the RPS function will not operate.

☞ If this control channel is the same as the receive channel of an internal sound source (☞ P.4-3), note numbers specified here will trigger Patterns, and other note numbers will play the Timbre as usual.

### Stop by

(The key to stop playback) **Song** [ - ( - ) ](off), [C—(0)]—[G9(127)]

When you press the key specified here, playback of all Patterns triggered by the RPS function will stop. If the same key has also been assigned to play a Pattern, this "Stop by" setting will take priority.

### Note #

(Note number) **Song** [C—(0)]—[G9(127)]

Specify the key that will trigger the Pattern.

If the same key as been assigned to play two or more different Patterns, the Pattern displayed on the higher line will be played.

☞ You can also specify the note number by playing a key on your MIDI keyboard.

**TRK - PTRN #**  
**- Name**

(The Pattern to be played) **Song**  
 Specify which Pattern of which track you wish to play.

**Mode**

(shot mode) **Song** [Loop], [1Shot], [Quick L], [Quick 1]

[Loop] When you press the key, the specified Pattern will begin playing back from the beginning, and when you release the key, playback will stop. The Pattern will play back continuously as long as you hold the key.

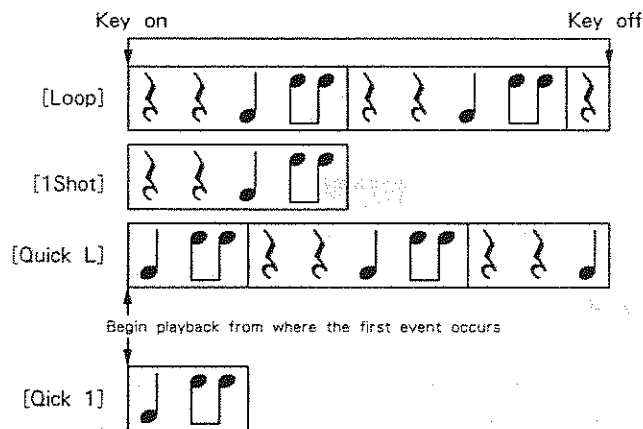
[1Shot] When you press the key, the specified Pattern will be played back once (from beginning to end). Even if you release the key, playback will be continued to the end.

[Quick L] When you press the key, the Pattern will begin playing back, starting with the first event. Then the Pattern will be repeated until you release the key, as in [Loop].

[Quick 1] When you press the key, the Pattern will begin playing back, starting with the first event. Then the Pattern will play to the end once, as in [1Shot].

If you are using a MIDI percussion pad to play Patterns, set this to "1Shot" or "Quick1".

Example)  For a Pattern such as



You can use the Realtime Phrase Sequence function from the [Play] , [Realtime Phrase SEQ] , [Chain Load] , and [Compu Mixer] display pages.

## 2. CHAIN LOAD

### 【Chain Load】

Step	Song Name	Start
1	XX-TOWN by M. Shinoda	Auto
2	LifeCycle by M. Sanders	Auto
3	Above&Beyond by L. Garcia	Auto
4	ShuffleUpAGas by A. Scott	Auto
5	Russian Circus by A. Bhatia	Auto

LoadSet | SaveSet | --- | --- | ---

Chain Load can be executed only from this page. If you move to a different page while this is being executed, playback will end after the currently playing song ends.

This mode allows you to load two or more songs and have them played back (in order) one after another. It is also possible to automatically execute Chain Load when the system is started up.

When a song is loaded, the corresponding Timbre settings will also be loaded.

It is not possible to use disks from devices other than the MV-30, or standard MIDI file disks.

#### ■ Specify the order of playback

First we must create a list of the playback order. The list can contain up to 99 songs.

#### Song Name

(The song names in the disk to be played) **Chain**

This displays the songs to be played back. As you rotate the VALUE dial, the songs on the disk will be successively displayed.

To insert a line in front of the cursor, press **INS**.

To delete the line indicated by the cursor, press **DEL**.

#### Start

(Specify automatic/manual start) **Chain**

[Auto] After the song has been loaded, playback will begin automatically.

[Man] After the song has been loaded, the MV-30 will be in standby. Press **▶/■** to begin playback.

It is also possible to start playback by pressing a pedal connected to the rear panel FOOT SW jack, instead of pressing the **▶/■** key (P.3-11).

#### Last line End/Repeat

If the last line of the display has been set to End, playback will stop after all the songs have been played. If the last line has been set to Repeat, playback will continue with the first song after all the songs have been played. **Chain**

#### **F1** Load Set

Chain Load settings can be saved on disk. This function loads the Chain Load settings from disk.

Loading will be executed automatically when the system is started up.

#### **F2** Save Set

This function saves the current Chain Load settings to disk. Each disk can contain only a single Chain Load setting. If the disk already contains a Chain Load setting, it will be overwritten.



#### Auto Start Switch **Chain**


[Off] Next time this disk is used to start up the system, the **[Play]** page will appear.

[On] Next time this disk is used to start up the system, the **[Chain Load]** page will appear, and Chain Load will begin automatically.

## ■ Starting and stopping playback

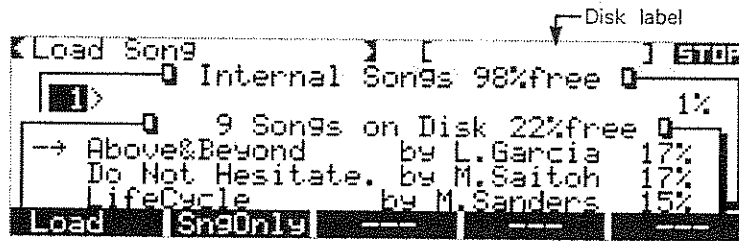
Chain Load can be performed only from this display page. The currently selected song numbers will be successively loaded.

To begin, press . To stop, press  once again.

It is also possible to start playback by pressing a pedal connected to the rear panel FOOT SW jack, instead of pressing the  key (P.3-11).

# 3. DISK

## [Load Song] .....



This function loads a song from disk into internal memory. Insert a disk which contains song data into the disk drive.

**Internal Songs**



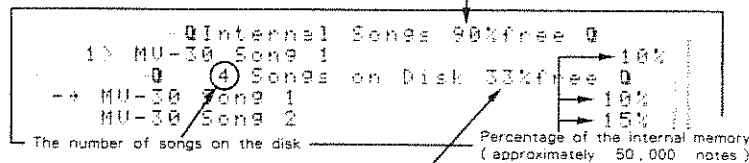
(Song number for loading destination) [1]—[20]

Specify the internal song number into which the song data will be loaded.

(Song to be loaded)

In the top line of the display, select the song you wish to load. If the disk contains two or more songs, rotate the VALUE dial to select the desired one.

This indicates the remaining capacity of internal song memory as a percentage of the total memory (approximately 50,000 notes)



This indicates the remaining song data capacity of the disk. (A disk which contains the system program can accommodate approximately 70,000 notes. A disk without the system program can accommodate approximately 100,000 notes.)

☐ Song numbers which contain no song data will be displayed as "(not used)".

**F1 Load**

Load the song and the Timbre bank data paired with that song.

**F2 SngOnly**

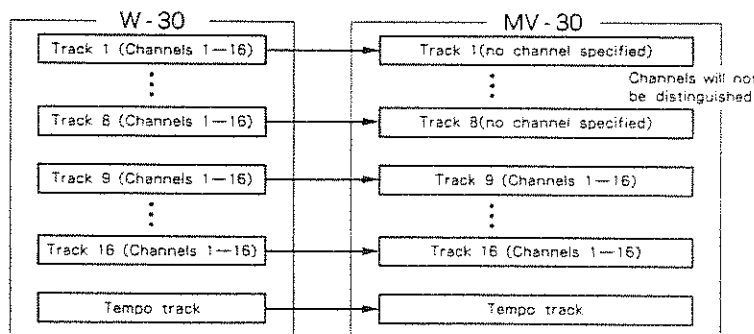
Load only the song.

### ■ Loading song data from another device

In addition to song data created by the MV-30, the following types of song data can be loaded (the type is detected automatically).

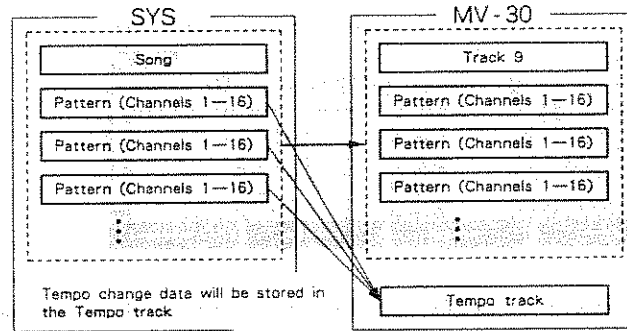
- Roland W - 30
- Roland SYS series           SYS - 503 (S - 50), SYS - 333 (S - 330)  
                                      SYS - 553 (S - 550)
- Roland MC series            MRC - 500 (MC - 500)  
                                      MRC - 300 (MC - 300)  
                                      SUPER - MRC (MC - 500mk II /MC - 50)

● W - 30 song data will be loaded as follows:



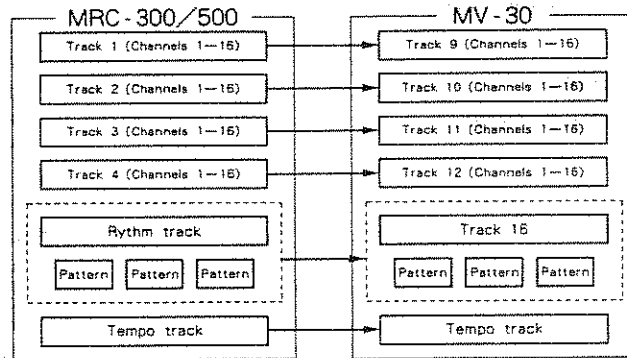
☐ All tracks will be of the Standard type.

- SYS-503(S-50)/SYS-333(S-330)/SYS-553(S-550) song data will be loaded as follows:



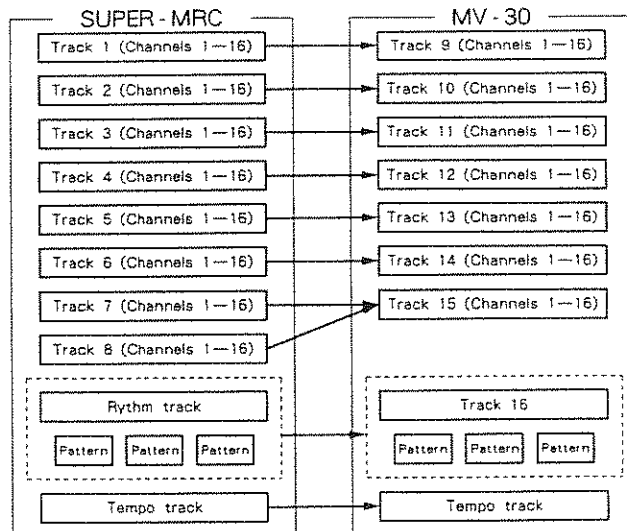
☐ Track 9 will be of the Pattern type.  
 ☐ Song names from SYS series devices can contain a maximum of 44 characters. However, the MV-30 allows only 28 characters for the song name, so only the first 28 characters of the loaded song name will be displayed.

- MRC-500(MC-500)/MRC-300(MC-300) song data will be loaded as follows:



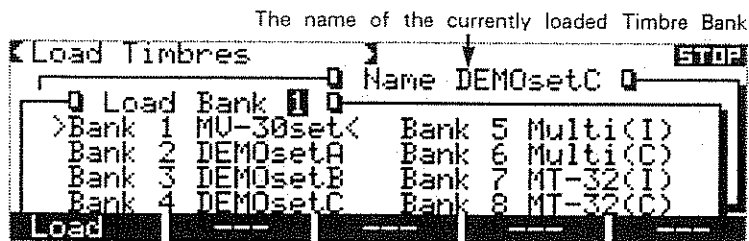
☐ Track 16 will be of the Pattern type, and all other tracks will be of the Standard type.

- SUPER-MRC(MC-500mk II /MC-50/300) song data will be loaded as follows:



☐ Track 16 will be of the Pattern type, and all other tracks will be of the Standard type.

**[Load Timbres]** .....



This function loads all Timbres of the specified bank from disk. Insert a disk which contains Timbre data into the disk drive.

**Name**

(Current Timbre Bank name)

This displays the name of the currently loaded Timbre Bank.

**Load Bank**

(Timbre Bank to be loaded)

[1]—[8]

Select the Timbre Bank you wish to load.

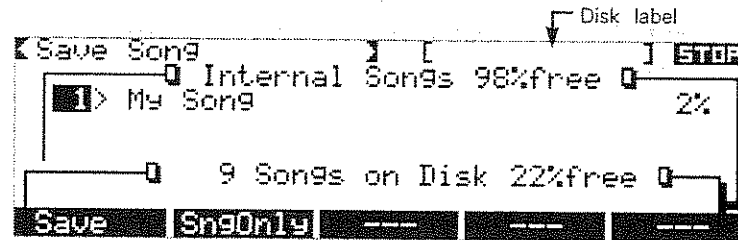
**[F1] Load**

Execute loading.

Internal memory contains 128 Timbres and 1 Rhythm Timbre. Eight sets of this data can be stored on a disk. Each of these sets is called a Timbre Bank. When the MV-30 is started up, all settings of bank 1 will automatically be loaded.

If you wish to load only a single Timbre, use **TIMBRE EDIT** to select the Timbre to be loaded, and use **SHIFT+F5 Load** to load it ( P.4-35, P.4-43).



**[Save Song]** .....

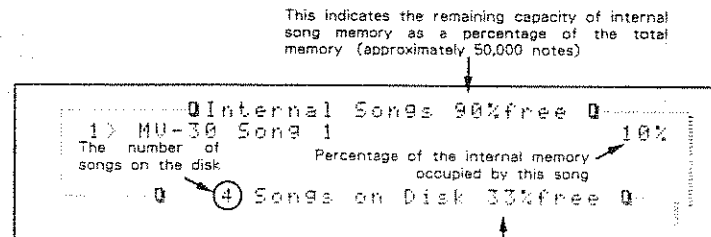
This function saves a song from internal memory to disk. A disk can contain up to 64 songs. Insert the disk into the disk drive.

**Internal Songs**

(Number and name of the song to be saved) [1]—[20]

If internal memory contains two or more songs, rotate the VALUE dial to select the song you wish to save.

Here you can modify the song name.



Since songs on disk are distinguished by their name, be sure to enter a song name. If the disk already contains a song of the same name, it will be overwritten. You will be asked "Overwrite OK?". If you wish to save the old song data, you must change the name of the new song in the MV-30 before saving it to disk.

**[F1] Save**

This will save song data and the current Timbre data. Execute this function if you have edited the Timbres.

**Name**

(The current Timbre Bank name) **Timb**

The name of the currently loaded Timbre Bank is displayed. You can modify this name if you wish.

**Bank**

(Timbre Bank number for saving destination) **Song** [1]—[8]

The next time you use the [Load Song] function ([F1] Load) to load this song, all Timbres of this Timbre Bank will also be loaded.

Press [F1] Save to execute the operation.

**[F2] SngOnly**

This operation will save only the song data. Execute this operation if you have not edited the Timbres, or if you do not wish to save the Timbres you edited.

**Bank**

(specify the Timbre Bank number to be paired with the song) **Song** [1]—[8]

Specify the Timbre Bank number to be paired with the song data.

The next time you use the [Load Song] function ([F1] Load) to load this song, all Timbres of this Timbre Bank will also be loaded.

Press [F1] Save to execute the operation.

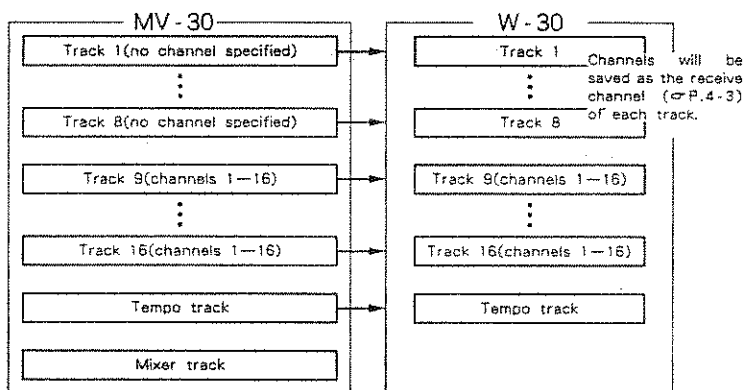
### ■ Saving song data to disk for another device

In addition to saving song data in the MV-30 format, you can also save song data in the following formats. The format is automatically detected when a disk from these devices is inserted for the Save operation, and the song data will be converted to the appropriate format.

Roland W - 30

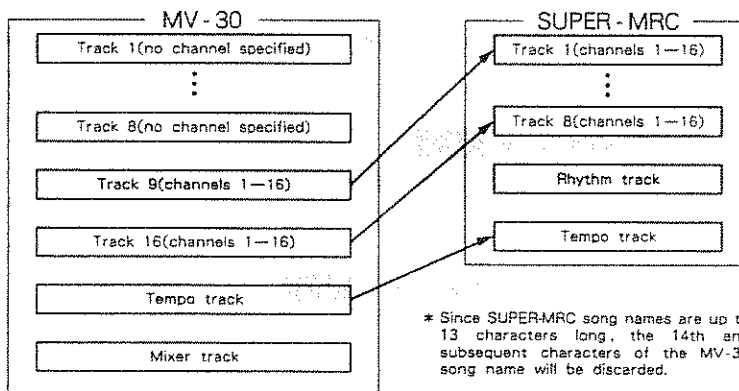
Roland SUPER - MRC(MC - 500mk II /MC - 50)

#### ● Data will be saved to a W-30 disk as follows:



- ☐ In the case of Pattern-type tracks, the data will be converted into the playback data that would result from the Pattern call events and the Pattern data, and saved in this form.
- ☐ Patterns will not be saved.
- ☐ Tracks 1—8 will be saved with the receive channel of each track. If the receive channel has been set to "—" (off), it will be saved as channel 1.

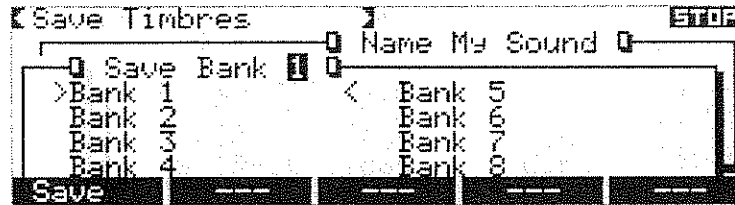
#### ● Data will be saved to a SUPER-MRC (MC-500/300) disk as follows:



\* Since SUPER-MRC song names are up to 13 characters long, the 14th and subsequent characters of the MV-30 song name will be discarded.

- ☐ MV-30 tracks 1—8 cannot be saved.
- ☐ In the case of Pattern-type tracks, the data will be converted into the playback data that would result from the Pattern call events and the Pattern data, and saved in this form.
- ☐ Patterns will not be saved.

## [Save Timbres]



This operation saves the settings of all Timbres in internal memory. Insert the disk into the disk drive.

The internal memory contains 128 Timbres and 1 Rhythm Timbre. Eight sets of these Timbres ("Timbre Banks") can be stored on a disk. When the MV-30 is started up, all settings of Timbre Bank 1 will be automatically loaded.

**Name**

(The current Timbre Bank name) **Timb**

You can assign an 8-character name for the Timbre Bank.

**Save Bank**

(Save destination Timbre Bank)

[1]—[8]

Specify the Timbre Bank into which the data will be saved.

**F1 Save**

Execute the save operation.

## [Delete Song]



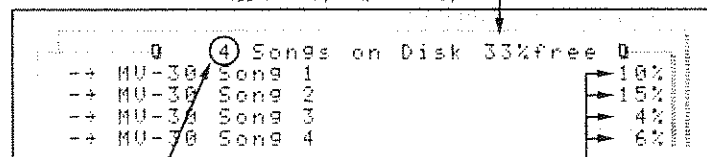
This operation deletes individual songs from a disk. Insert the disk into the disk drive.

→

(The song to be deleted)

If the disk contains two or more songs, use the VALUE dial to select the song in the upper line.

This indicates the remaining song data capacity of the disk. (A disk which contains the system program can accommodate approximately 70,000 notes. A disk without the system program can accommodate approximately 100,000 notes.)



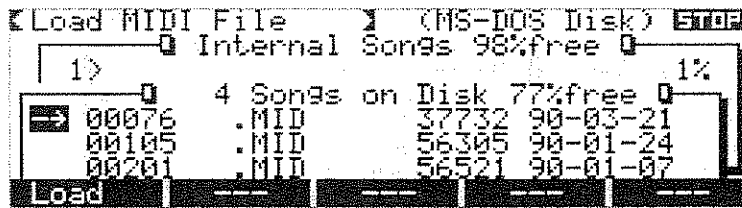
The number of songs on the disk

Percentage of the internal memory that each song would occupy

**F1 Delete**

Execute the delete operation.

## [Load MIDI File]



This operation loads data from standard MIDI files. For standard MIDI files to be loaded, all three of the following conditions must be met:

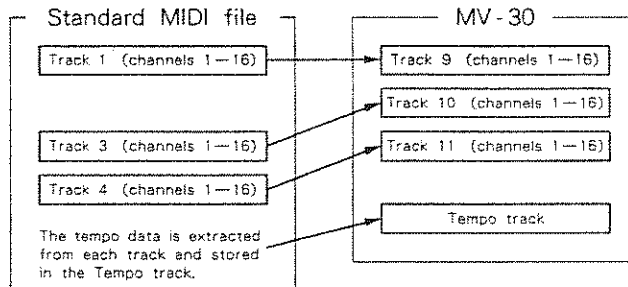
- ① The standard MIDI file must be on one of the following disks: (3.5 inch 2DD type)
  - a disk formatted on an IBM-PC
  - a disk formatted on a PC-9801
  - a disk formatted on an ATARI
  - a disk formatted on the Macintosh in IBM-PC format\*
  - A disk initialized by the Roland MRM-500 using "MODE 4 INITIALIZE"
- ② The standard MIDI file must have a filename extension of "MID".
- ③ The standard MIDI file must be format 0 or 1.

Format 0 files will be loaded into track 9.

Format 1 files will be loaded into MV-30 tracks 9 through 16 (if necessary), and only tracks which contain data will be loaded. If the MV-30 runs out of tracks, all the remaining data will be merged into track 16.

In any case, tempo change data will be extracted from all tracks and written into the Tempo track.

### If the standard MIDI file only contains data in tracks 1, 3, and 4



☞ If you are using a Macintosh II x, II cx, II ci, SE/30, Portable, or II fx, use the "Apple File Exchange" software (supplied with the Macintosh System Software) to format the disk for the IBM-PC. If you are using a Macintosh SE, II, or Plus, use a disk drive such as the "DaynaFile" to format the disk for the IBM-PC.

\* Macintosh is a registered trademark of Apple Corporation.

DaynaFile is a trademark of Dayna Communications Inc.

☞ All tracks will be standard-type tracks.

☞ Song numbers which are not used (which contain no song data) will be displayed as "(not used)".

### Internal Songs

(The loading destination song number)

[1]—[20]

Specify the song into which the data will be loaded.

→

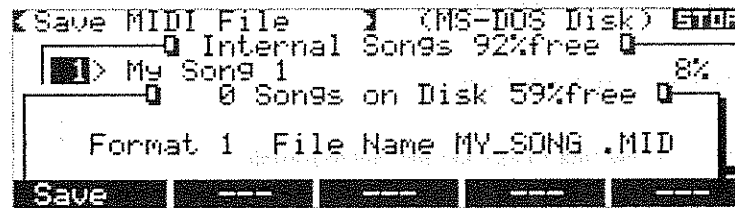
(The song to be loaded)

The song to be loaded will appear in the top line of the display. If the disk contains two or more songs, rotate the VALUE dial to select the desired one.

**F1** Load

Load the standard MIDI file.

## [Save MIDI File]



This operation saves MV-30 song data to disk as a standard MIDI file.

Standard MIDI files can be saved onto one of the following disks: (3.5 inch 2DD type)

- a disk formatted on an IBM-PC
- a disk formatted on a PC-9801
- a disk formatted on an ATARI
- a disk formatted on the Macintosh in IBM-PC format
- A disk initialized by the Roland MRM-500 using "MODE 4 INITIALIZE"

### Internal Songs

(Number and name of the song to be saved) [1]—[20]

If the internal memory contains two or more songs, rotate the VALUE dial to select the song you wish to save.

Data of internal sound source tracks will be saved as data for the receive channel (P.4-3) of that track. If the receive channel has been set to "—" (off), it will be saved as channel 1.

### Format

Select the standard MIDI file format.

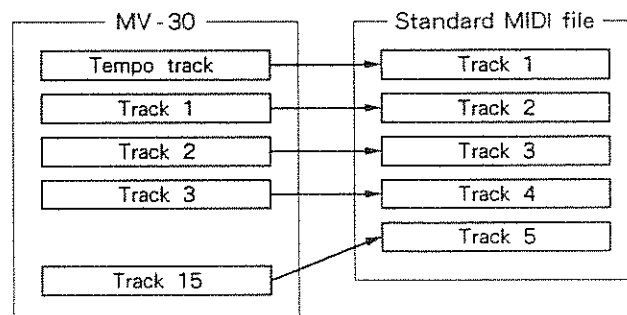
[Format 0] In this format, the data consists of one track which contains one or more channels. When this format is selected, the data from tracks 1—16 and the Tempo track will all be merged and saved.

[Format 1] In this format, the data consists of one or more tracks, each of which contains one or more channels. If the Tempo track contains data, it will be saved in track 1. Then all MV-30 tracks which contain data will be saved in order.

If you are using a Macintosh II x, II cx, II ci, SE/30, Portable, or II fx, use "Apple File Exchange" software (supplied with the Macintosh System Software) to format the disk for the IBM-PC. If you are using a Macintosh SE, II, or Plus, use a disk drive such as the "DaynaFile" to format the disk for the IBM-PC.

If you wish to use a file saved in this way on the Macintosh, use "ResEdit" etc. to modify the file type to "Midi".

When MV-30 tracks 1, 2, 3, 15 and the Tempo track contain data



In the case of Pattern-type tracks, the data will be converted into the playback data that would result from the Pattern call events and the Pattern data, and saved in this form.

**File Name**

The first 8 characters of the song name will automatically be displayed as the filename. You may modify the filename in this display. A filename extension of "MID" will be added. The extension cannot be modified.

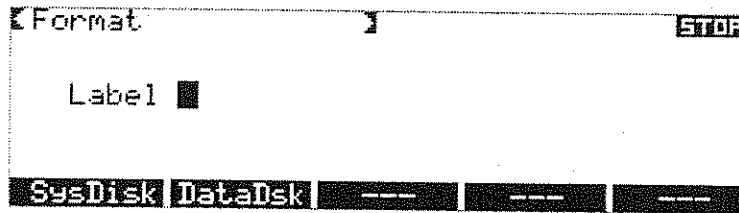
☐ Spaces in the song name will be converted into baseline dashes "\_", and lower case characters will be converted into upper case characters.

**F1 Save**

Save the song data as a standard MIDI file.

\* If the amount of song data is large, this may not be possible.

**[Format]**



Newly purchased disks or disks that have been used by other devices cannot be used as they are. They must first be formatted for use with the MV-30.

☐ The MV-30 uses 3.5 inch dual sided, double-density, double-track micro floppy disks (2DD).

**Label**

(Disk label)

A disk can be given a label of up to 11 characters. It is not possible to change the disk label once it has been assigned.

**F1 Sys Disk**

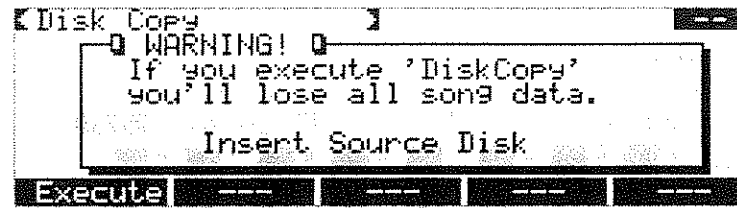
After the disk is formatted, the System program will be saved onto the disk. The disk will be able to accommodate approximately 70,000 notes of song data.

☐ Disks on which the System program has been saved can be used to start up the MV-30.

**F2 Data Dsk**

The disk will be formatted, but the System program will not be saved onto the disk. The disk will be able to accommodate approximately 100,000 notes of song data.

## 【Disk Copy】



This operation copies an MV-30 disk. Have the copy source disk and copy destination disk ready, and insert the copy source disk into the disk drive.

**\* It is not possible to copy disks other than those of the MV-30.**

### **F1** Execute

Execute the Disk Copy operation.

When the display reads "Insert Destination Disk", remove the disk, insert the copy destination disk, and press **F1** Execute. After a short time the display will read "Insert Source Disk". Remove the disk, and insert the copy source disk.

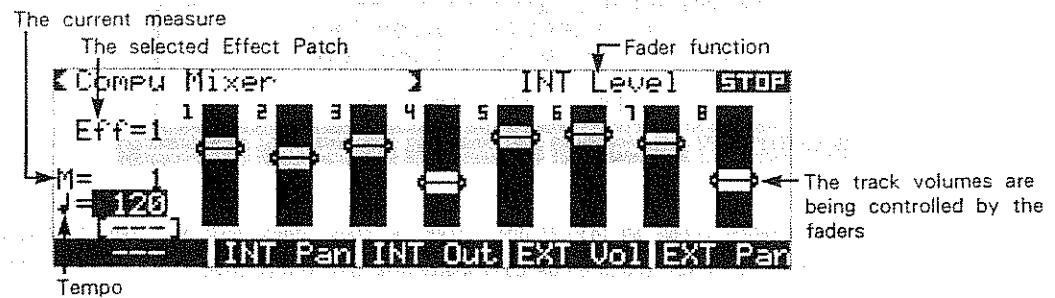
You will be asked to repeat these steps three times. When the display reads "Complete", the Disk Copy operation is finished.

When you execute this Disk Copy operation, all internal song memory will be erased. If internal memory contains song data you wish to keep, save it to disk first.

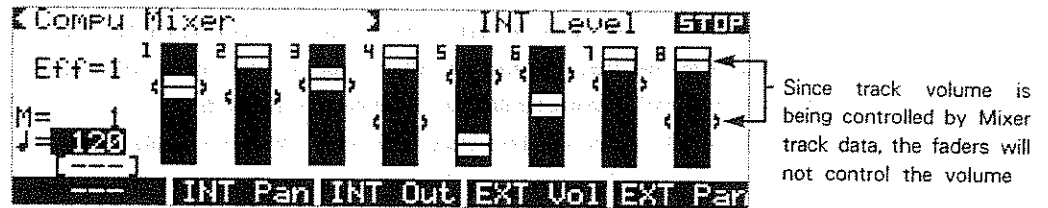
Do not insert disks in wrong order.

# 4. COMPU MIX

## [Compu Mixer]



When the MIX MODE is MANUAL, or COMPU and the track key indicators are off



When the MIX MODE is COMPU and the track key indicators are lit

In the [Compu Mixer] display page, you can select the function of the compu mixer faders:

- ① The eight faders can control the following parameters for the internal sound source tracks:
  - Output level for each track
  - Pan for each track
  - Output assignment for each track
- ② The eight faders can transmit the following data from MIDI OUT:
  - MIDI volume for each channel
  - MIDI pan for each channel

When you press **MANUAL** from a display page other than [Compu Mixer], the eight faders will always control the volume of internal sound source tracks 1—8.

In addition, you can hold **SHIFT** and press **F1**—**F5** to select Effect Patches.

These control operations can also be recorded as the song progresses. This data will be recorded in the mixer track (P.4-22).

As with other tracks, you can use the microscope to view and edit the contents of the mixer track (P.4-54).

If you wish to control the faders manually, press **MANUAL** (the indicator will light). If you wish to playback the fader movements you recorded, press **COMPU** (the indicator will light). Then press the track keys (the indicators will light) (P.6-8).



### ■ Selecting the function of the faders

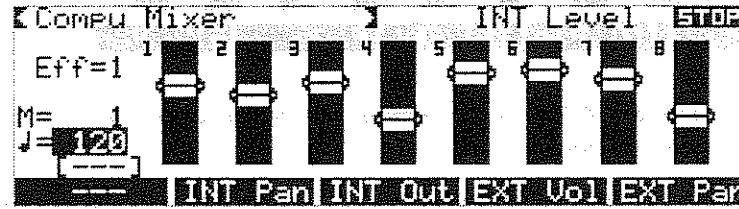
Use [F1]—[F5] to select the function of the faders.

(It is not possible to do this while recording.)

#### [F1] INT Lvl

(Adjust output levels of the internal tracks)

The faders will adjust the output level of each track.



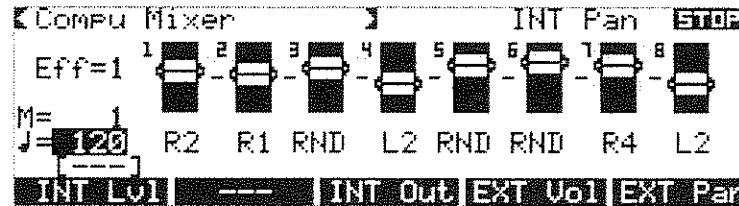
This is the same as editing the Level of each track from the [Play] display page (P.4-2).

#### [F2] INT Pan

(Adjust pan position of the internal tracks)

[L7] (left)—[><] (center)—[R7] (right)

The faders will adjust the output level of each track.



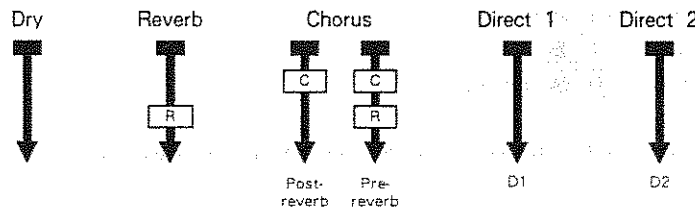
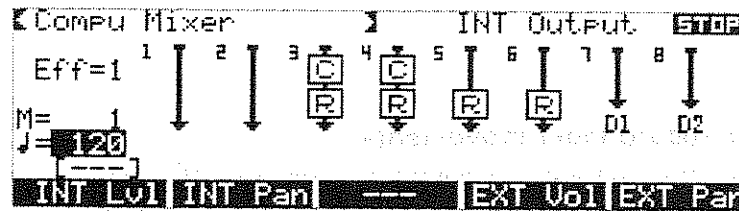
This is the same as editing the Pan of each track from the [Play] display page (P.4-2).

(“Random” cannot be selected.)

#### [F3] INT Out

(Change the output assignment of the internal tracks)

The faders will change the output assignment of each track.



This is the same as editing the Out of each track from the [Play] display page (P.4-2).

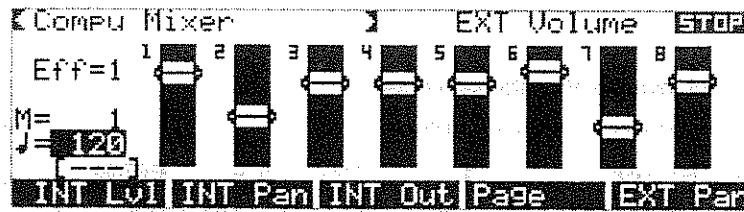
☐ If MIDI volume data (control change No.7) has been recorded in the track whose volume you are controlling, the volume will change in response to both types of data. If both types of data occur at the same time, the fader setting will take priority. (MIDI volume data will not be reflected in the movement of the fader display.)

☐ If MIDI pan data (control change No.10) has been recorded in the track whose pan position you are controlling, the stereo position will change in response to both types of data. If both types of data occur at the same time, the fader setting will take priority. (MIDI pan data will not be reflected in the movement of the fader display.)

**F4** EXT Vol

(Transmit MIDI Volume data for each channel)

The faders will transmit MIDI Volume (control change #7) for each channel.



MIDI Volume data in external sound source tracks will not appear as fader movements.

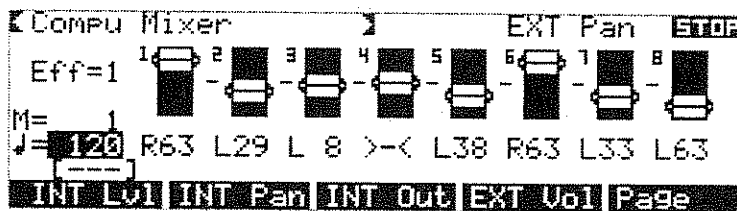
Each time you press the **F4** Page switch, the display will alternate between MIDI channels 1—8 and MIDI channels 9—16.

**F5** EXT Pan

(Transmit MIDI Pan data for each channel)

[L63]—[R64]

The faders will transmit MIDI Pan data (control change #10) for each channel.



MIDI Pan data in external sound source tracks will not appear as fader movements.

Each time you press the **F5** Page switch, the display will alternate between MIDI channels 1—8 and MIDI channels 9—16.

M=

(Measure)

[1]—[9999]

This display indicates the current measure. A "+" sign is displayed to indicate a position within the middle of a measure.

J=

(Standard tempo) **Song**

[10]—[250]

If the tempo has been altered by tempo change data, the actual resulting tempo will be displayed in square brackets "[ ]".

You can also adjust the standard tempo by holding **TEMPO** and rotating the VALUE dial.

**SHIFT** + **F1**

Effect1 —

**SHIFT** + **F5**

Effect5

Select Effect Patches 1—5 (← P.3-4).

**How to record fader movements**

Record compu mixer data during the playback of a song. Press **REC** after selecting a fader function. And then press the track key(s) of the recording track(s) /channel(s) to make LED lit in red.

To start recording, press **▶/■**.

To stop recording, press **▶/■** once again.

\* The mix mode (COMPU/MANUAL) is also remembered for each song.

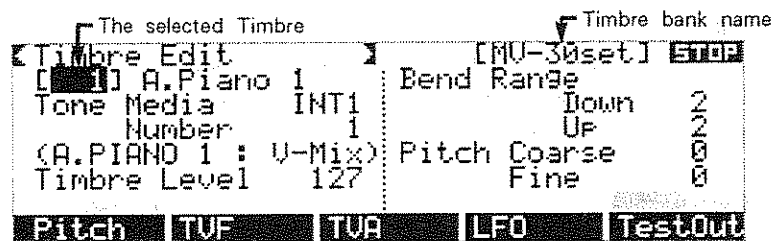
**Song**

And the play/mute (track key's LED) condition of the data of each track/channel in each fader function is also remembered for each song.

**Song**

# 5. TIMBRE EDIT

## [Timbre Edit]



Internal memory contains 128 Timbres and 1 Rhythm Timbre. You can edit this data in this display page.

The parameters you edit in this display page will all be saved to disk as Timbre parameters.

[ ]  
Timbre name

(Select Timbre and modify Timbre name) **Timb** [1]—[128], [RHY]

Select the Timbre you wish to edit. You can also assign a 12-character name to that Timbre.

You can press the track key to select the Timbre being played by that track (P.6-8).

### ■ Editing a Timbre 1—128

Tone Media

(Tone media) **Timb**

A "Tone" is the basic component of a Timbre; it is the fundamental ingredient of sound. There are 220 Tones in internal memory, and you can select any one you wish. The 220 Tones are divided into three groups (Internal Tone List P.6-19).

In addition to the Tones in internal memory, you can also use Tones from PCM cards designed for the MV-30 and the D-70. You can also use cards designed for U-series instruments.

INT1	internal memory	instrumental sounds
INT2	internal memory	synthesizer waveforms
INT3	internal memory	rhythm sounds
U-01 —	PCM cards for the U series	SN-U110-01 —
U-30 —	PCM card for the MV-30	SN-MV30-02
U-31 —	PCM card for the MV-30	SN-MV30-01
D-01 — 32	PCM cards for the D-70	SN-SPLA-01 — 32

Some of the Tones in the SN-U110 series are identical to internal Tones of the MV-30.

Number

(Tone number, name type) **Timb** [1]—

Specify which Tone of the selected tone media will be used.

The Tone type indicates how the PCM data (waveform) will be used. It is not possible to change the Tone Type.

When using a PCM card (SN-SPLA series) for the D-70, you can use each Tone as one of two types: Single or Detune. A [s] displayed before the Tone number indicates a Single type Tone, and a [d] indicates a Detune type Tone.

Tone type	No. of voices	
Single	1	A Tone consisting of one PCM waveform
V-SW	1	A Tone consisting of two PCM waveforms switched by key velocity
Dual	2	A Tone consisting of two different PCM waveforms
Detune	2	A Tone consisting of two detuned PCM waveforms
V-Mix	2	A Tone consisting of two PCM waveforms mixed by key velocity

<p><b>Timbre Level</b></p>	<p>(Timbre level) <b>Timb</b> [0]—[127]                  Set the volume level of the Timbre.</p>																
<p><b>Bend Range</b></p>	<p>(Bend range)                  Specify the maximum range of pitch bend that will occur when pitch bend messages (☞ P.6-15) are received. You can make independent Bend Down and Bend Up settings (in chromatic steps).</p>																
<p><b>Down</b></p>	<p>(Bend down) <b>Timb</b> [0]—[36]                  Specify the pitch change that will occur when the minimum pitch bend value is received (when the bender lever is moved completely to the left).</p>																
<p><b>Up</b></p>	<p>(Bend up) <b>Timb</b> [0]—[12]                  Specify the pitch change that will occur when the maximum pitch bend value is received (when the bender lever is moved completely to the right).</p>																
<p><b>Pitch Coarse</b></p>	<p>(Pitch coarse) <b>Timb</b> [- 24]—[24]                  Adjust the pitch of the Timbre in chromatic steps.                  Some values of the Pitch Coarse parameter may exceed the pitch range of the Tone, in which case there will be no sound.</p>																
<p><b>Fine</b></p>	<p>(Pitch fine) <b>Timb</b> [- 50]—[50]                  Adjust the pitch of the Timbre in steps of one cent (50 cents = 1/2 chromatic step).</p>																
<p><b>[F1] Pitch</b></p>	<p>The Pitch Param window will open.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><input type="checkbox"/> Pitch Param</p> <table border="0"> <tr> <td>CAf Sens</td> <td>0</td> <td>Auto Bend</td> <td></td> </tr> <tr> <td>PAf Sens</td> <td>0</td> <td>Depth</td> <td>0</td> </tr> <tr> <td>LFO Sens</td> <td>0</td> <td>Rate</td> <td>0</td> </tr> <tr> <td>Detune</td> <td>--</td> <td>Mode</td> <td>----</td> </tr> </table> </div> <p>Here you can make settings related to pitch change.</p>	CAf Sens	0	Auto Bend		PAf Sens	0	Depth	0	LFO Sens	0	Rate	0	Detune	--	Mode	----
CAf Sens	0	Auto Bend															
PAf Sens	0	Depth	0														
LFO Sens	0	Rate	0														
Detune	--	Mode	----														
<p><b>CAf Sens</b></p>	<p>(Channel aftertouch sensitivity for pitch) <b>Timb</b> [- 24]—[12]                  When this parameter is set to a value other than zero, incoming channel aftertouch messages (☞ P.6-15) will modify the pitch. The value you specify here is the pitch change (in chromatic steps) that will occur when the maximum value (127) for channel aftertouch is received.</p>																
<p><b>PAf Sens</b></p>	<p>(Polyphonic aftertouch sensitivity for pitch) <b>Timb</b> [- 24]—[12]                  When this parameter is set to a value other than zero, incoming polyphonic aftertouch messages (☞ P.6-15) will modify the pitch. The value you specify here is the pitch change (in chromatic steps) that will occur when the maximum value (127) for polyphonic aftertouch is received.</p>																
<p><b>LFO Sens</b></p>	<p>(LFO sensitivity for pitch) <b>Timb</b> [0]—[15]                  When this parameter is set to a value other than zero, the LFO will affect the pitch, creating a vibrato effect. The intensity of the LFO can be set over a range of 15 steps.</p>																

☞ By using this parameter ... you can change the pitch by pressing down harder on the keyboard keys. (Your MIDI keyboard must be able to transmit channel aftertouch messages.)

☞ You must also make the appropriate LFO settings (☞ P.4-32).

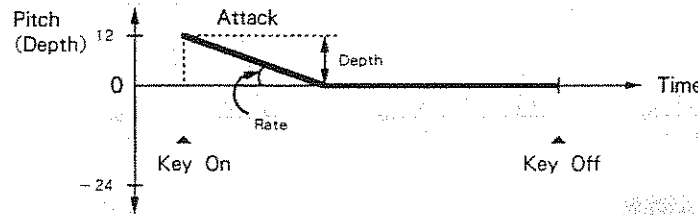
**Detune** (Pitch detune depth) **Timb** [0]—[15]

For Detune-type Tones, this parameter specifies the depth of pitch detune over a range of 15 steps.

**Auto Bend** (Auto bend)

When this parameter is set to a value other than zero, the pitch of a note will initially be lower or higher, and then gradually brought back up to its original pitch.

By using this parameter ... you can simulate the natural pitch bends that occur in brass instrument attacks, etc.



**Depth** (Auto bend depth) **Timb** [- 24]—[12]

Specify how far the pitch will be lowered or highered initially (in chromatic steps).

**Rate** (Auto bend rate) **Timb** [0]—[15]

Set the speed at which the pitch will return to the original pitch (variable over a range of 15 steps). Higher values will result in a faster change.

**Mode** (Auto bend mode) **Timb**

When a Detune-type Tone is being used,

- [Single] The pitch of only 1 voice will change.
- [Double] The pitch of both voices will change together.

**F2 TVF**

The TVF, TVF ENV Control, or TVF ENV Set window will open. In these three popup windows you can make settings for the TVF (Time Variant Filter).

**F1 Cutoff**

The TVF window will open.

**TVF**

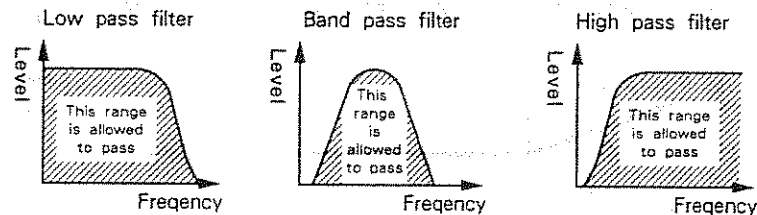
Mode	<b>LPF</b>	Key Follow	0
Cutoff	65	Caf Sens	0
Resonance	0	LFO Sens	0

Here you can make basic TVF settings.

**Mode**

(TVF filter mode) **Timb**

- [Thru] (through) The filter will not be used.
- [LPF] (low pass filter) only low frequencies will pass
- [BPF] (band pass filter) only frequencies of the specified frequency band will pass
- [HPF] (high pass filter) only high frequencies will pass

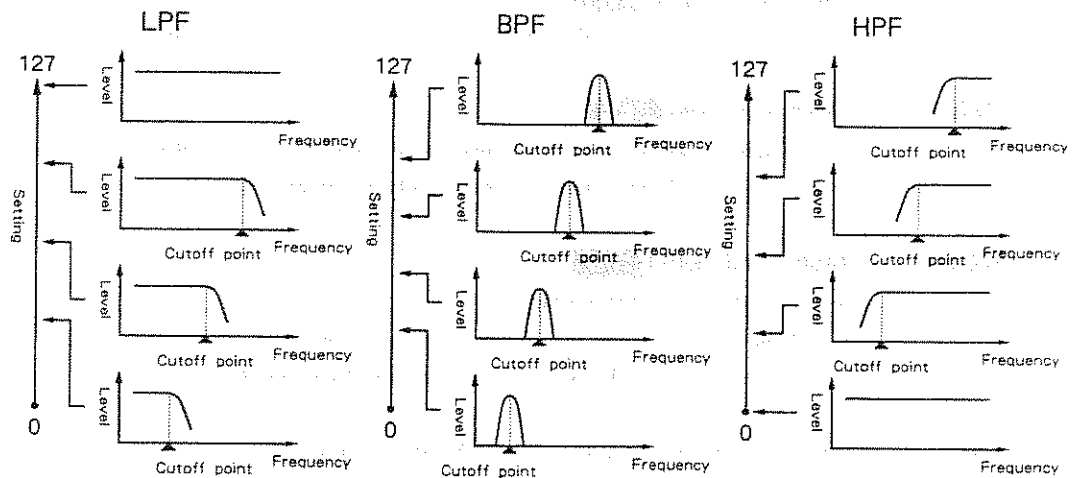


**Cutoff**

(Cutoff point) **Timb**

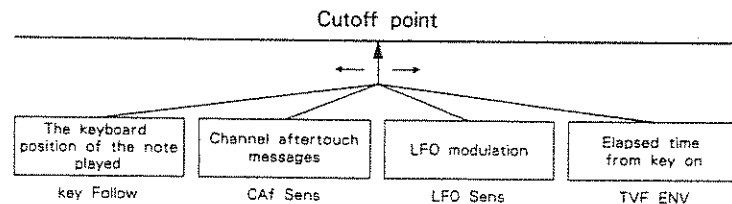
[0]—[127]

Specify the cutoff point of the filter.



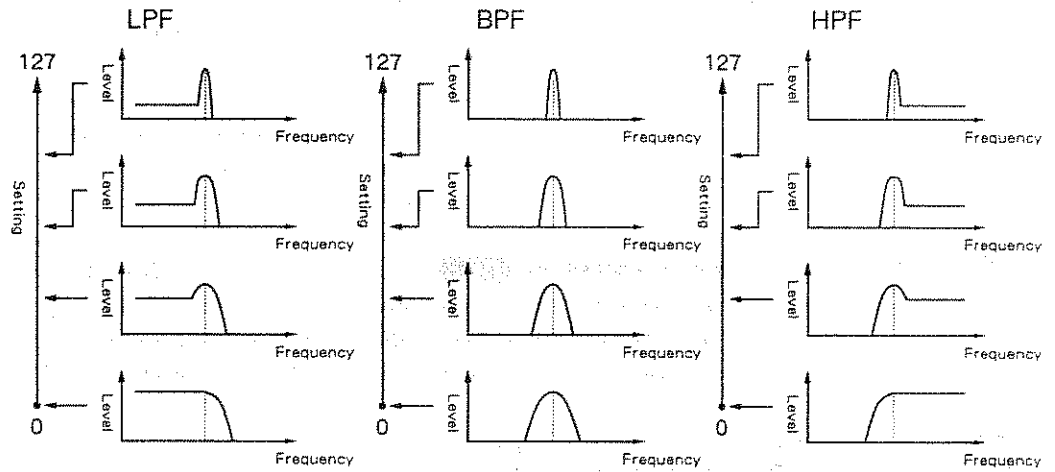
\* When the TVF filter mode is set to LPF, lower values of this parameter will cut an increasing amount of high frequencies, and the sound will become closer to that of a sine wave. If this parameter is set too low, there will be no sound.

The cutoff point you specify here is a basic value that can be adjusted by the following parameters:



**Resonance** (Resonance) **Timb** [0]—[127]

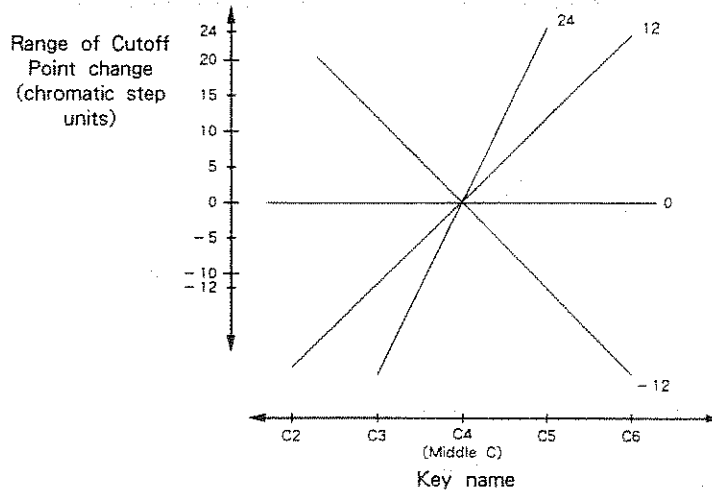
As this value is increased, the frequencies around the cutoff frequency will be emphasized.



**Key Follow** (Cutoff point key follow) **Timb** [-12]—[24]

This parameter allows you to adjust the cutoff point according to the keyboard position (key number).

The value indicates how much the cutoff point will change (in chromatic steps) when the keyboard position moves one octave.



This parameter allows you to ... adjust the cutoff point according to keyboard position. When this is set to a value of 12, the overtone structure will be cut in the same way for all keys, and all keys will have the same tone.

When you play C4, the cutoff point will be at the point you specify for this parameter.

**CAf Sens** (Cutoff point channel aftertouch sensitivity) **Timb** [-15]—[15]

When this parameter is set to a value other than zero, incoming channel aftertouch messages (P.6-15) will affect the cutoff point.

**Positive (+) values**

When a channel aftertouch message with the minimum data value (0) arrives, the cutoff point will be exactly as specified by the Cutoff parameter. Higher values (closer to 15) of this CAf Sens parameter will cause the maximum value (127) for channel aftertouch to result in a higher cutoff point.

This parameter allows you to ... make the sound darker or brighter (if the Filter Mode is LPF) by pressing down harder on the keyboard key after initially playing a note. (Your MIDI keyboard must be able to transmit Channel Aftertouch.)

**Value of 0** The cutoff point will be exactly as specified by the Cutoff parameter, regardless of the data value of incoming aftertouch messages.

**Negative ( - ) values** When a channel aftertouch message with the minimum data value (0) arrives, the cutoff point will be exactly as specified by the Cutoff parameter. Increasingly negative values (closer to - 15) of this Caf Sens parameter will cause the maximum value (127) for channel aftertouch to result in a lower cutoff point.

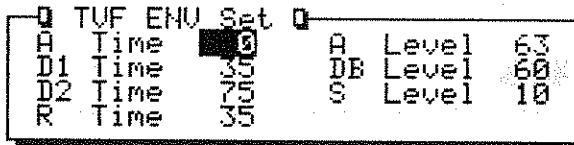
**LFO Sens**

(Cutoff point LFO sensitivity) **Timb** [0]—[15]  
 When this parameter is set to a value other than zero, you can allow the LFO to periodically move the cutoff point (a "growl" effect). This parameter allows you to specify (over a range of 15 steps) how greatly the LFO will affect the cutoff point.

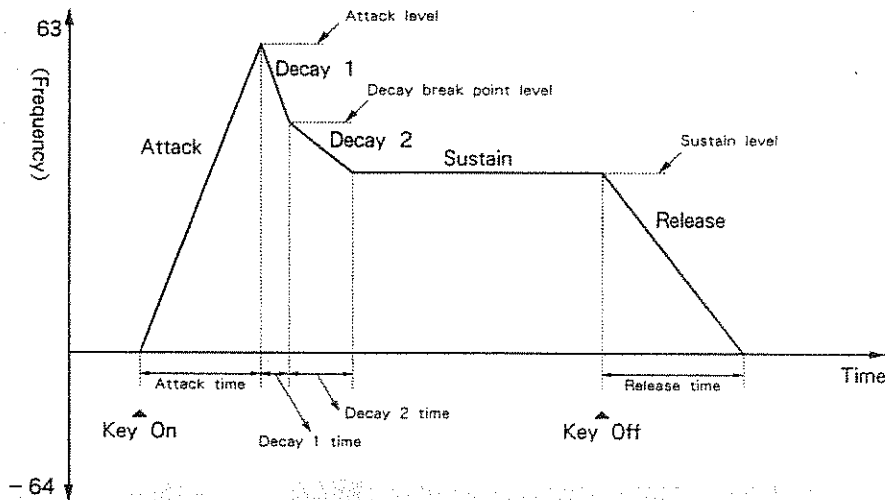
You must make appropriate LFO settings (P.4-32).

**[F3] ENV Set**

The TVF ENV Set window will open.....



Here you can make settings for the TVF ENV. These settings determine how the cutoff point will change over time after you press a key.



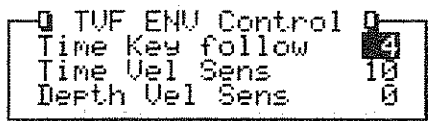
<b>A Time</b>	(Attack time) <b>Timb</b>	[0]—[127]
<b>A Level</b>	(Attack level) <b>Timb</b>	[ - 64]—[63]
<b>D1 Time</b>	(Decay 1 time) <b>Timb</b>	[0]—[127]
<b>DB Level</b>	(Decay break point level) <b>Timb</b>	[ - 64]—[63]
<b>D2 Time</b>	(Decay 2 time) <b>Timb</b>	[0]—[127]
<b>S Level</b>	(Sustain level) <b>Timb</b>	[ - 64]—[63]
<b>R Time</b>	(Release time) <b>Timb</b>	[0]—[127]

\*For Level values of 0, the cutoff point will be as specified by the Cutoff parameter.



**F2**  
ENV CTR

The TVF ENV Control window will open.



Here you can specify how the TVF ENV will be controlled.

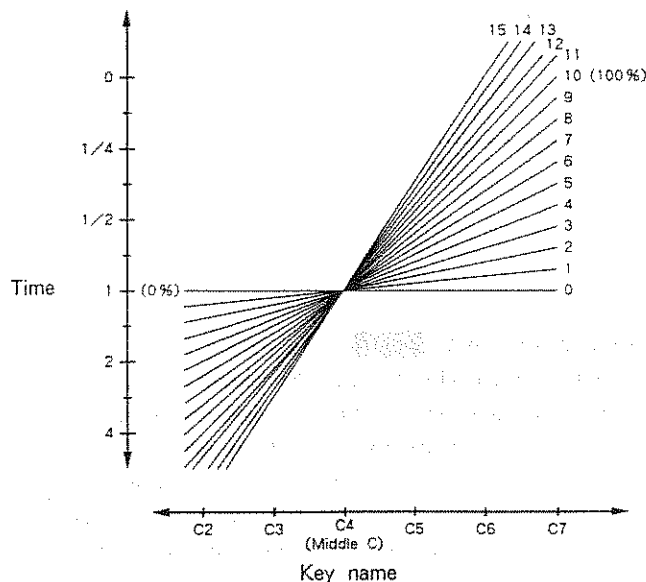
\*To set the TVF ENV, press **F3** ENV Set.

**Time Key Follow**

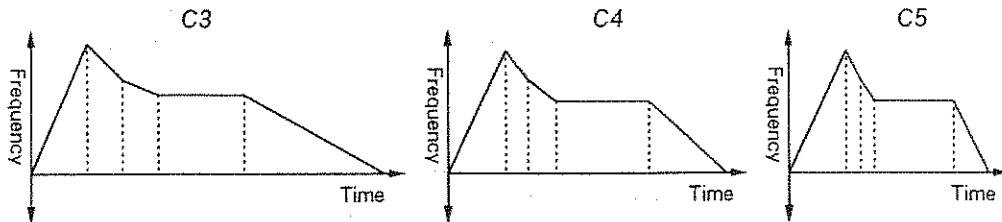
(Envelope time key follow) **Timb** [0]—[15]

This allows you to adjust the times of envelope Decay 1, Decay 2, and Release (P.4-28) according to the keyboard position (note number).

Higher settings of this parameter will make the envelope time shorter as you play higher notes on the keyboard.



When TIME Key Follow is + 10



### Time Vel Sens

(Envelope time velocity sensitivity) **Timb** [0]—[15]

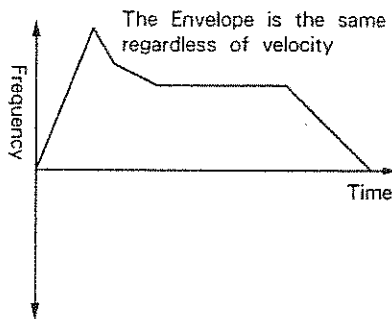
When this parameter is set to a value other than zero, the velocity data (refer to Chapter 5 "Glossary") of each incoming note will affect the Attack and Decay 1 times of the envelope (P.4-28).

**Values of [1]—[15]** For notes with a medium velocity value (64), the envelope will be exactly as you specified for the TVF ENV parameters. For notes with higher velocity, the times will be shortened, and for notes with lower velocity, the times will be lengthened. Higher values (closer to 15) of this parameter will shorten the envelope times for notes with the maximum velocity (127).

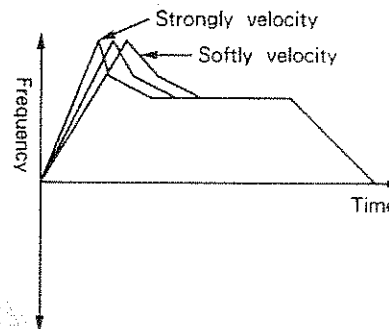
**Values of [0]** Regardless of the velocity of the note, the envelope will be exactly as you specified for the TVF ENV parameters.

**This parameter allows you to ...**  
 make the filter open faster for louder notes, causing a sharper attack, and open slower for softer notes, causing a more gentle attack (when the filter Mode is LPF).

When Time Vel Sens is 0



When Time Vel Sens is 15



### Depth Vel Sens

(Envelope depth velocity sensitivity) **Timb** [0]—[15]

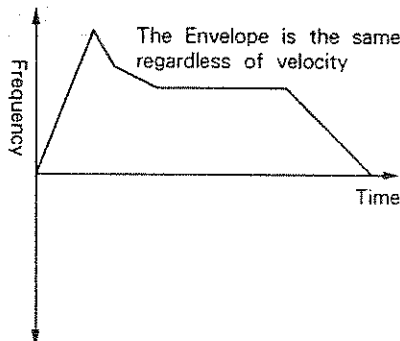
When this parameter is set to a value other than zero, the velocity data (refer to Chapter 5 "Glossary") of each incoming note will affect the height of the envelope.

**Values of [1]—[15]** For notes with the maximum velocity value (127), the envelope will be exactly as you specified for the TVF ENV parameters. For notes with lower velocity, the height of the envelope will be decreased. Higher values (closer to 15) of this parameter will decrease the envelope height for notes with the minimum velocity (1).

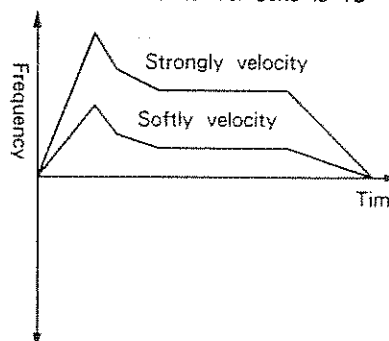
**Value of [0]** Regardless of the velocity of the note, the envelope will be exactly as you specified for the TVF ENV parameters.

**This parameter allows you to ...**  
 make the cutoff point higher for louder notes, causing a brighter sound, and make the cutoff point lower for softer notes, causing a softer sound (when the filter Mode is LPF).

When Time Vel Sens is 0

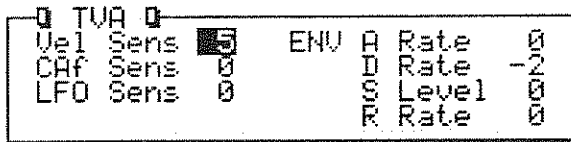


When Time Vel Sens is 15



**F3** TVA

The TVA window will open.



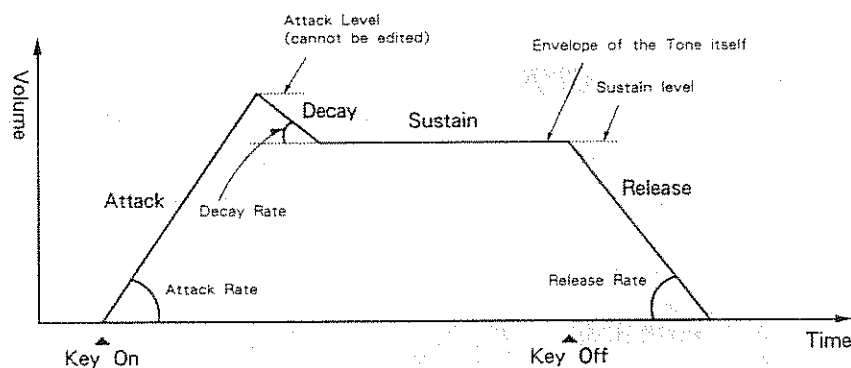
Here you can make settings related to the TVA (Time Variant Amplifier).

**ENV**

(TVA envelope)

Tones have their own preset volume envelope (it is not possible to see or edit this data.) The following TVA envelope parameters allow you to make relative adjustments in this preset envelope (except for the attack level).

☐ Rate parameters are "slopes". Higher values will result in a faster change.



- A Rate**
- D Rate**
- S Level**
- R Rate**

(Attack rate) <b>Timb</b>	[ - 7 ]—[ 7 ]
(Decay rate) <b>Timb</b>	[ - 7 ]—[ 7 ]
(Sustain level) <b>Timb</b>	[ - 7 ]—[ 7 ]
(Release rate) <b>Timb</b>	[ - 7 ]—[ 7 ]

\* When all values are set to 0, the Tone volume will change according to the Tone's original volume envelope parameters.

**Vel Sens**

(Velocity sensitivity of the TVA ENV height) **Timb** [ - 7 ]—[ 7 ]

When this parameter is set to a value other than zero, the velocity data (refer to Chapter 5 "Glossary") of incoming notes will affect the height of the TVA ENV.

☐ This parameter allows you to ... make strongly played notes louder, and softly played notes quieter (for positive values).

**Positive (+) values** For notes with the maximum velocity (127), the envelope will be exactly as you specified for the TVA ENV parameters. For notes with lower velocity, the TVA ENV height will decrease. Higher values (closer to 7) of this parameter will decrease the volume of notes that have the minimum (1) velocity.

**Value of 0** Regardless of the velocity of the note, the envelope will be exactly as you specified for the TVA ENV parameters.

**Negative (-) values** For notes with the minimum velocity (1), the envelope will be exactly as you specified for the TVA ENV parameters. For notes with higher velocity, the TVA ENV height will decrease.

**CAf Sens**

(Sensitivity of volume to channel aftertouch) **Timb** [- 7]—[7]

When this parameter is set to a value other than zero, incoming channel aftertouch messages (⇨ P.6-15) will affect the volume.

**Positive (+) values** As the channel aftertouch value increases, the volume will increase. Higher values (closer to 7) of this CAf Sens parameter will result in a lower volume when the aftertouch data of the minimum value (0) is received. Note that in this case there will be no sound.

**Value of 0** The volume will be the same, regardless of the data value of incoming channel aftertouch messages.

**Negative (-) values** As the channel aftertouch value increases, the volume will decrease.

☞ This parameter allows you to ... make the sound louder or softer by pressing down on the keyboard key after playing a note. (Your MIDI keyboard must be able to transmit Channel Aftertouch.)

**LFO Sens**

(TVA LFO sensitivity) **Timb** [0]—[15]

When this parameter is set to a value other than zero, you can allow the LFO to periodically change the volume (a "tremolo" effect). This parameter allows you to specify (over a range of 15 steps) how greatly the LFO will affect the volume.

☞ You must make appropriate LFO settings (⇨ P.4-32).

**[F4] LFO**

The LFO window will open.

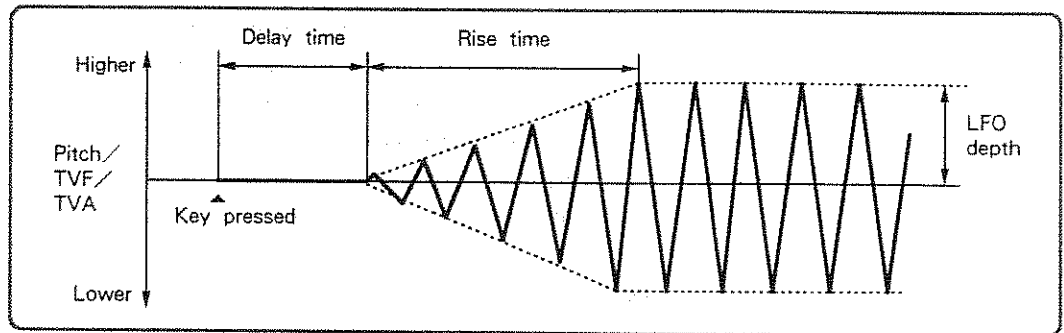
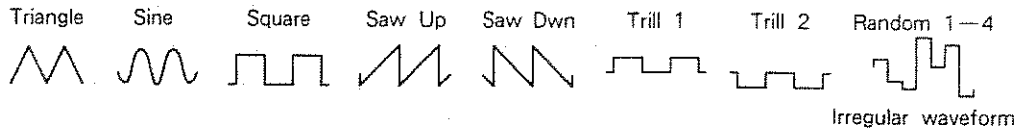
LFO 0			
Wave	Triangle	Delay	0
Rate	0	MOD Sens	0
Depth	0	CAf Sens	0
Rise Time	0	PAf Sens	0

Here you can make LFO settings. The LFO can be used to modulate pitch (to create vibrato), cutoff point (to create growl), or volume (to create tremolo). The effect of the LFO is determined by the various LFO Sens settings (⇨ P.4-24, P.4-28, P.4-32).

**Wave**

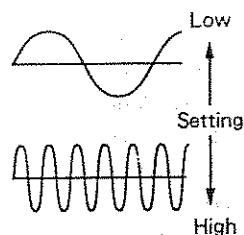
(Waveform) **Timb**

Specify the LFO waveform.



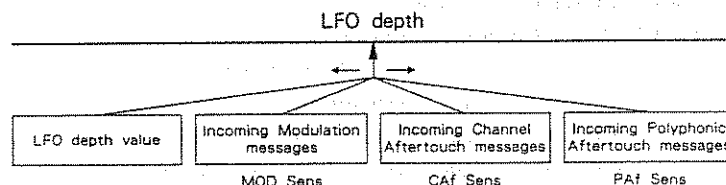
**Rate**(LFO rate) **Timb** [0]—[63]

Specify the LFO speed. Higher settings will result in faster modulation.

**Depth**(LFO depth) **Timb** [0]—[15]

Specify the depth of the LFO over a range of 15 steps. For a value of 0, there will be no change in the sound. As you increase this value, the LFO will become deeper.

In addition to this parameter, the following parameters also affect LFO depth:



LFO depth = LFO Depth

$$\begin{aligned}
 &+ (\text{MOD Sens} \times \text{the value of Modulation messages}) \\
 &+ (\text{CAf Sens} \times \text{the value of Channel Aftertouch messages}) \\
 &+ (\text{PAf Sens} \times \text{the value of Polyphonic Aftertouch messages})
 \end{aligned}$$

If the LFO Depth has been set to the maximum value (15), reception of other messages will have no effect. You must lower the LFO Depth value.

**Rise Time**(Rise time) **Timb** [0]—[15]

This specifies the length of time from when the LFO begins to take effect to when it reaches the full depth specified by Depth. Higher values will result in a longer rise time.

**Delay**(Delay time) **Timb** [0]—[15]

This specifies the length of time from when the key is pressed to when the LFO begins to take effect. Higher values will result in a longer delay time.

**MOD Sens**(LFO depth modulation sensitivity) **Timb** [0]—[15]

When this is set to a value other than zero, incoming MIDI Modulation messages will affect the depth of the LFO.

**Values of 1—15** When the Modulation message data value is at minimum (0), the LFO depth will be as specified by the LFO Depth parameter. As the Modulation message data values increase, the LFO depth will increase. Higher values of this MOD Sens parameter will allow incoming Modulation messages with the maximum data value (127) to increase LFO depth more greatly.

**Value of 0** Regardless of incoming Modulation messages, the LFO depth will be as specified by the LFO Depth parameter.

**CAf Sens**

(LFO depth channel aftertouch sensitivity) **Timb** [0]—[15]

When this parameter is set to a value other than zero, incoming Channel Aftertouch messages will affect the LFO depth.

**Values of 1—15** When a Channel Aftertouch message with the minimum data value (0) arrives, the LFO depth will be exactly as specified by the LFO Depth parameter. As the Channel Aftertouch message data values increase, the LFO depth will increase. Higher values of this CAf Sens parameter will allow incoming Modulation messages with the maximum data value (127) to increase LFO depth more greatly.

**Value of 0** Regardless of incoming Channel Aftertouch messages, the LFO depth will be as specified by the LFO Depth parameter.

**PAf Sens**

(LFO depth polyphonic aftertouch sensitivity) **Timb** [0]—[15]

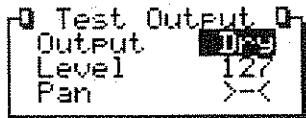
When this parameter is set to a value other than zero, incoming Polyphonic Aftertouch messages will affect the LFO depth.

**Values of 1—15** When a Polyphonic Aftertouch message with the minimum data value (0) arrives, the LFO depth will be exactly as specified by the LFO Depth parameter. As the Polyphonic Aftertouch message data values increase, the LFO depth will increase. Higher values of this PAF Sens parameter will allow incoming Modulation messages with the maximum data value (127) to increase LFO depth more greatly.

**Value of 0** Regardless of incoming Polyphonic Aftertouch messages, the LFO depth will be as specified by the LFO Depth parameter.

**[F5] Test Out**

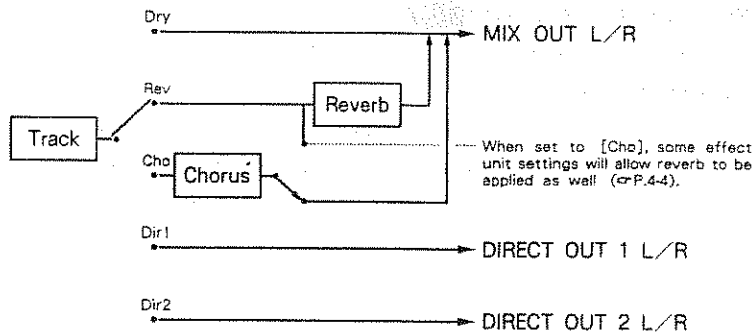
The Test Output window will open.....



These settings allow you to temporarily change the output of the Timbre you are editing.

**Output**

(Output assign) [Dry], [Rev], [Cho], [Dir1], [Dir2]  
Specify the output.



Parameters you set in this window are temporary and do not determine the permanent output destination of the Timbre. These settings are not saved to disk.

By using this function ... you can turn the effect on or off while you edit the Timbre. This allows you to determine how it will sound during a performance.

**Level**

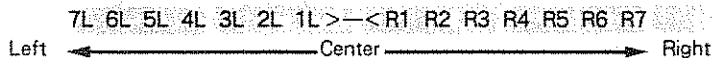
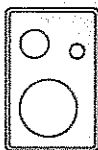
(Output level) [0]—[127]

Specify the output volume.

**Pan**

(Pan) [7L]—[>—<]—[R7], [RND]

Specify the pan position (stereo location) for when stereo output is used. When RND is selected, the stereo position will change randomly for each note.



**[SHIFT] + [F1]**  
**Copy**

The Timbre Copy window will open. ....



Here you can copy the settings from any internal Timbre into the currently selected Timbre number.

**Copy from**

(Timbre to copy) [1]—[128]

Select the Timbre you wish to copy. Press [F1] Copy to execute the copy operation.

**[SHIFT] + [F2]**  
**Exchange**

The Timbre Exchange window will open. ....

Here you can exchange (swap) settings between any Timbre in internal memory and the currently selected Timbre.



**Timbre**

(Timbre to exchange) [1]—[128]

Select the Timbre you wish to exchange.

Press [F1] Exchange to execute the exchange.

**[SHIFT] + [F4]**  
**INIT**

A window will open asking "Are you sure?".

This operation will initialize the currently selected Timbre to a set of standard values (Parameter List P.6-13) Press [F1] INIT to initialize the Timbre.

**[SHIFT] + [F5]**  
**Load**

The Timbre Load window will open. ....



Here you can load a selected Timbre from disk into the currently selected Timbre.

**Bank**

(Timbre bank) [1]—[8]

Specify the Timbre bank from which to load the Timbre.

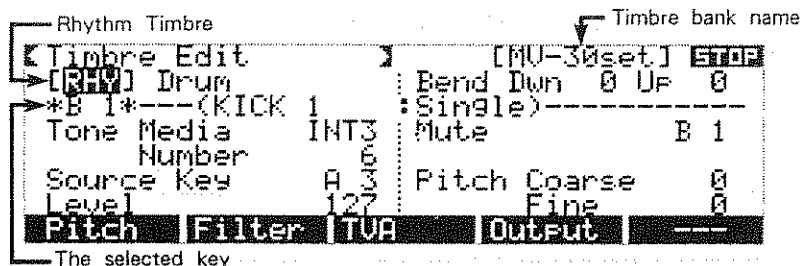
**Timbre**

(The Timbre to load) [1]—[128]

Specify the Timbre you wish to load from the selected bank.

Press [F1] Load to execute the load operation.

■ Editing the Rhythm Timbre [RHY]



Unlike other Timbres, the Rhythm Timbre allows you to assign a different Tone to each key. Select the key you wish to edit, and make settings for each key.

**Bend**

(Bend range)

Specify how much the pitch will be affected by incoming Pitch Bend messages (☞ P.6-15). The bend ranges (up and down) can be set independently.

☐ This bend range parameter applies to the entire Rhythm Timbre.

**Dwn**

(Bend down) **Timb** [0]—[36]

Specify in chromatic steps how much the pitch will change when the minimum value of Pitch Bender data is received (i.e., when the bender lever is moved completely to the left).

**Up**

(Bend up) **Timb** [0]—[12]

Specify in chromatic steps how much the pitch will change when the maximum value of Pitch Bender data is received (i.e., when the bender lever is moved completely to the right).

**\*[ ]\***

(Key name) [B 1]—[D 7]

Select the key you wish to edit.  
You may press a note on your MIDI keyboard.

☐ Each of the following parameters can be set independently for each key:

**Tone Media**

(Tone media) **Timb**

Internal memory contains 220 Tones, and you may select any one you wish. The 220 Tones are organized in three groups as follows (☞ P.6-19). In addition to Tones from internal memory, you can also use Tones from PCM cards designed for the MV-30 and the D-70. You can also use cards designed for the U Series of instruments.

INT1	internal memory	instrumental sounds
INT2	internal memory	synthesizer waveforms
INT3	internal memory	rhythm sounds
U-01 —	PCM cards for the U series	SN-U110-01 —
U-30 —	PCM card for the MV-30	SN-MV30-02
U-31 —	PCM card for the MV-30	SN-MV30-01
D-01 — 32	PCM cards for the D-70	SN-SPLA-01 — 32



**Number**

(Tone number) **Timb** [1]—

Specify which Tone of the selected tone media will be used.

☐ PCM cards (SN-SPLA series) from the D-70 contain two types of Tones: Single Tones and Detune Tones. A [s] displayed before the Tone number indicates a Single type Tone, and a [d] indicates a Detune type Tone.

---( : )---

(Name: type)

This displays the name and type of the Tone selected by Tone Media and Number.

☐ The Tone type indicates how the PCM data (waveform) will be used. It is not possible to change the type of a Tone.

Tone type	No. of voices	
Single	1	A Tone consisting of one PCM waveform
V-SW	1	A Tone consisting of two PCM waveforms switched by key velocity
Dual	2	A Tone consisting of two different PCM waveforms
Detune	2	A Tone consisting of two detuned PCM waveforms
V-Mix	2	A Tone consisting of two PCM waveforms mixed by key velocity

**Source Key**

(Source key) **Timb** [Off], [C - ](C - 1)—[G 9]

If you do not want the selected note to sound, set this to [Off].

The sound of some Tones may differ depending on the key. In this case, use this parameter to select the key. If this is set [Off], there will be no sound.

**Level**

(Level) **Timb** [0]—[127]

Specify the volume of the selected key.

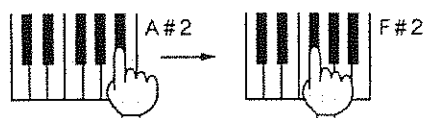
**Mute**

(Mute) **Timb** [Off], [B 1]—[D 7]

When the current key (the key for which you are setting this parameter) is pressed, the sound of the key (note) specified as Mute will be turned off. When this parameter is set Off, this key will not mute any other key.

☐ Mute settings are valid even if the Source Key is [Off].

**Example:** In an acoustic drum set, it is not possible to play both the closed and open hi-hats sounds at the same time. And doing so on the MV-30 would sound unnatural. In this case, set the open hi-hat (A#2) to be muted by the closed hi-hat (F#2), and the closed hi-hat (F#2) to be muted by the open hi-hat (A#2).



The open Hi-hat sounds      The closed Hi-hat sounds and the open Hi-hat is muted

**Pitch Coarse**

(Pitch coarse) **Timb** [- 24]—[24]

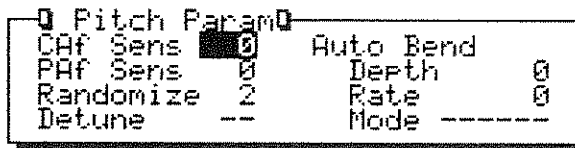
Make adjustments in chromatic steps for the pitch sounded by the selected key.

Some values of the Pitch Coarse parameter may exceed the pitch range of the Tone, in which case there will be no sound.

**Fine** (Pitch fine) **Timb** [-50]—[50]  
 Make fine adjustments (one-cent steps) for the pitch sounded by the selected key.  
 (50 cents is 1/2 of a chromatic step.)

**F1 Pitch**

The Pitch Param window will open. ....



Here you can make settings related to pitch change for the selected key.

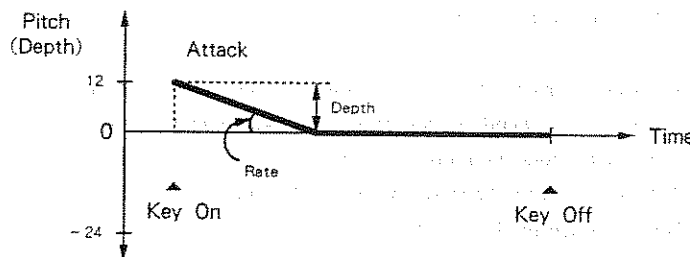
**CAf Sens** (Pitch channel aftertouch sensitivity) **Timb** [-24]—[12]  
 When this parameter is set to a value other than zero, incoming Channel Aftertouch messages (☞ P.6-15) will modify the pitch. This value specifies the pitch change (in chromatic steps) that will occur in response to the maximum value (127) of Channel Aftertouch.

**PAf Sens** (Pitch polyphonic aftertouch sensitivity) **Timb** [-24]—[12]  
 When this parameter is set to a value other than zero, incoming Polyphonic Aftertouch messages (☞ P.6-15) will modify the pitch. This value specifies the pitch change (in chromatic steps) that will occur in response to the maximum value (127) of Polyphonic Aftertouch.

**Randomize** (Pitch randomize) **Timb** [0]—[15]  
 This parameter allows you to produce a random change in pitch each time the note is played. Higher values will result in greater change.

**Detune** (Pitch detune depth) **Timb** [0]—[15]  
 For Detune-type Tones, you can specify the amount of pitch detune over a range of 15 steps.

**Auto Bend** (Auto bend)  
 When this parameter is set to a value other than zero, the pitch of a note will initially be lower or higher, and then gradually brought back up to its original pitch.



**Depth** (Auto bend depth) **Timb** [-24]—[12]  
 Specify how much (in chromatic steps) the pitch will be lowered or highered at the beginning of the note.

**Rate** (Auto bend rate) **Timb** [0]—[15]  
 Specify how quickly (over a range of 15 steps) the sound will return to the original pitch. Higher values will result in a faster recovery.

☞ By using this parameter ... you can modify the pitch by pressing down on the key after the note has been initially played. (Your MIDI keyboard must be able to transmit channel aftertouch messages.)

☞ These parameters allow you to ... simulate the pitch changes that naturally occur during the attack of brass and other acoustic instruments.

**Mode**

(Auto bend mode) **Timb**

For Detune-type Tones,

- [Single] the pitch of only one voice will change
- [Double] the pitch of both voices will change together

**F2 Filter**

The Filter window will open.  
Here you can make settings related to the digital filters.



**Mode**

(Filter mode) **Timb**

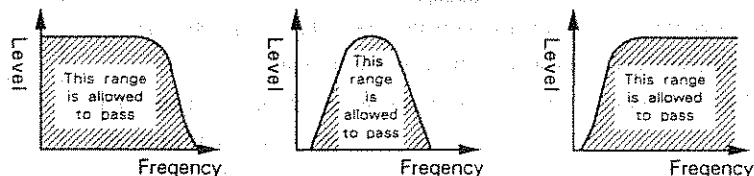
Specify the filter mode.

- [Thru] (through) The filter will have no effect.
- [LPF] (low pass filter) The filter will allow only low frequencies to pass.
- [BPF] (band pass filter) The filter will allow only frequencies of the specified range to pass.
- [HPF] (high pass filter) The filter will allow only high frequencies to pass.

Low pass filter

Band pass filter

High pass filter

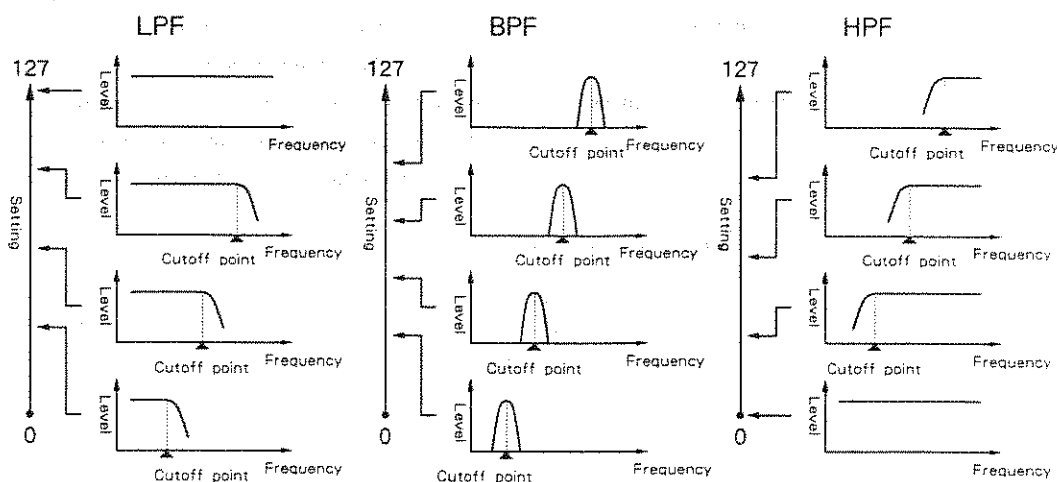


**Cutoff**

(Cutoff point) **Timb**

[0]—[127]

Specify the filter cutoff point.



\* When the TVF filter mode is set to LPF, lower values of this parameter will cut an increasing amount of high frequencies, and the sound will become closer to that of a sine wave. If this parameter is set too low, there will be no sound.

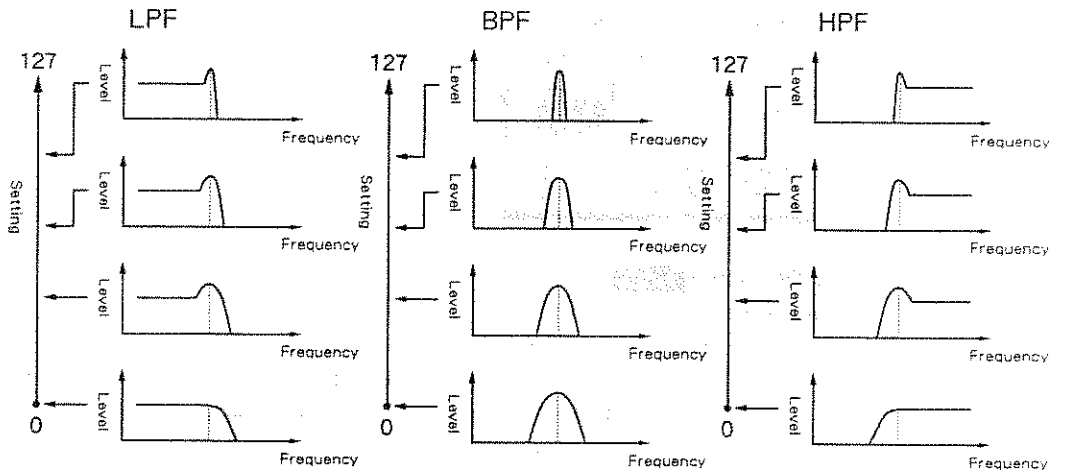
The cutoff point specified here is the standard value, but can be controlled by velocity data.

### Resonance

(Resonance) **Timb**

[0]—[127]

As the value of this parameter is increased, the frequencies around the cutoff frequency will be emphasized.



### Vel Sens

(Cutoff point velocity sensitivity) **Timb**

[-7]—[0]—[7]

When this parameter is set to a value other than zero, the velocity data (refer to Chapter 5 "Glossary") of each note will affect the cutoff point.

**Positive (+) values**

For notes with maximum velocity (127), the cutoff point will be as specified by the Cutoff parameter. Lower velocities will lower the cutoff point. Higher values of this Vel Sens parameter will lower the cutoff point for notes with the minimum velocity (1).

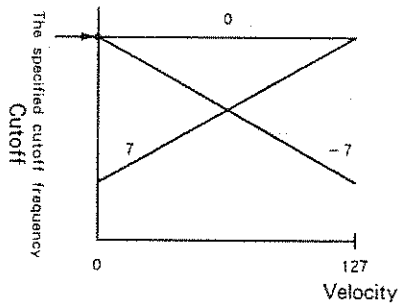
**A value of 0**

Regardless of the note velocity, the cutoff point will be as specified by the Cutoff parameter.

**Negative (-) values**

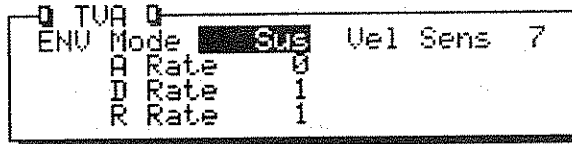
For notes with minimum velocity (1), the cutoff point will be as specified by the Cutoff parameter. Higher velocities will lower the cutoff point.

**This parameter allows you to ...**  
 make velocity (playing dynamics) affect the tone of the rhythm instrument. For example, you can make settings so that loud notes will be brighter, and soft notes will be darker in tone.



**F3 TVA**

The TVA window will open.

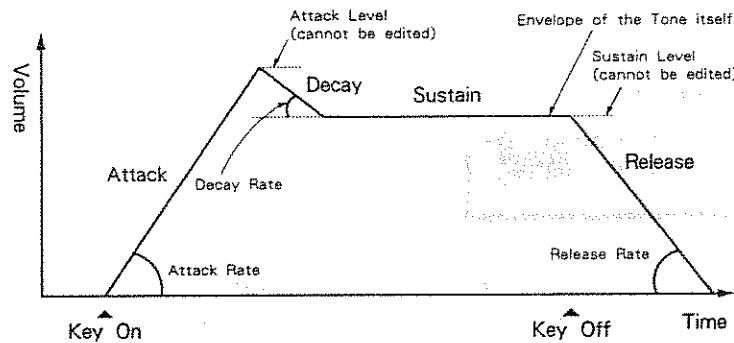


Here you can make settings related to the TVA (Time Variant Amplifier).

**ENV**

(TVA envelope)

Tones have their own preset volume envelope (it is not possible to see or edit this data.) The following TVA envelope parameters allow you to make relative adjustments for three parameters of this preset envelope (you cannot adjust the attack level or the sustain level).



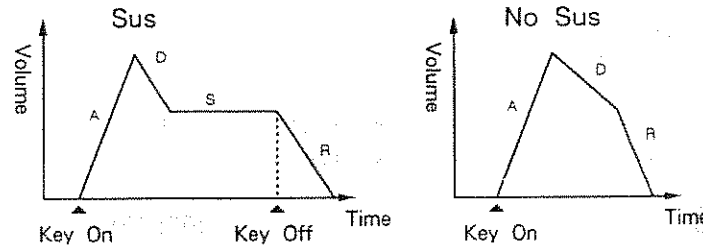
**Mode**

(Envelope mode) **Timb**

This determines whether or not to apply sustain.

[Sus] The release will begin when the Key Off message is received.

[No Sus] The release will begin as soon as the sustain level is reached. (The key-off timing will have no effect.)



<b>A Rate</b>	(Attack rate) <b>Timb</b>	[ - 7 ] — [ 7 ]
<b>D Rate</b>	(Decay rate) <b>Timb</b>	[ - 7 ] — [ 7 ]
<b>R Rate</b>	(Release rate) <b>Timb</b>	[ - 7 ] — [ 7 ]

\* If all parameters are set to a value of "0", the volume envelope parameters of the Tone itself will be used just as they are.

**Vel Sens**

(Velocity sensitivity for TVA ENV height) **Timb** [-7]—[7]

When this parameter is set to a value other than zero, the velocity data (refer to chapter 5 "Glossary") of incoming notes will affect the height of the TVA ENV.

**Positive (+) values** For notes of maximum velocity (127), the volume will be specified by the TVA ENV. For lower velocities, the TVA ENV height will decrease. Higher values of this Vel Sens parameter will lower the volume for notes of minimum velocity (1).

**A value of 0** Regardless of the note velocity, the volume will be exactly as specified by the TVA ENV.

**Negative (-) values** For notes of minimum velocity (1), the volume will be as specified by the TVA ENV settings. For higher velocities, the TVA ENV height will decrease.

**This parameter allows you to ...**  
 make loud notes louder and soft notes quieter. (for positive values)

**F4 Output**

The Output Param window will open.

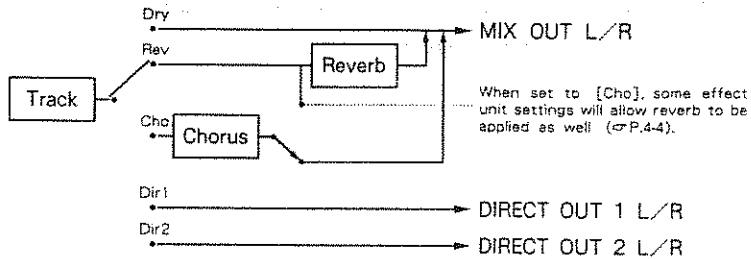


Here you can specify the output for each key. This lets you apply effects to only specific notes, or to send them from the direct outputs. Specify the output for each key.

**Out Assign**

(Output assign) **Timb** [Dry], [Rev], [Cho], [Dir1], [Dir2]

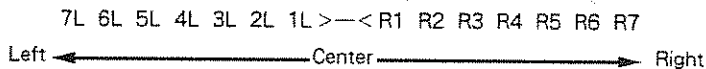
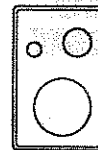
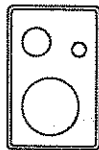
Specify the output.



**Pan**

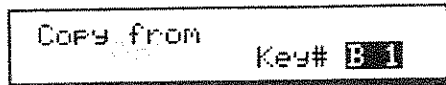
(Pan) **Timb** [7L]—[>—<]—[R7], [RND]

Specify the pan position (stereo location). When RND is selected, the stereo position will change randomly for each note.



**SHIFT** + **F1**  
Copy

The "Copy from" window will open.....



Here you can copy the settings from any key into the currently selected key.

**Copy from**  
**Key #**

(Key to copy) [B 1]—[D 7]

Select the key you wish to copy.

Press **F1** Copy to execute the copy operation.

**SHIFT** + **F2**  
Exchange

The "Exchange" window will open.....



Here you can exchange (swap) settings between any key and the currently selected key.

**Exchange**  
**Key #**

(Key to exchange) [B 1]—[D 7]

Select the key you wish to exchange.

Press **F1** Exchange to execute the exchange.

**SHIFT** + **F5**  
Load

The Timbre Load window will open.....



Here you can load a Rhythm Timbre from disk into the currently selected Rhythm Timbre.

**Bank**

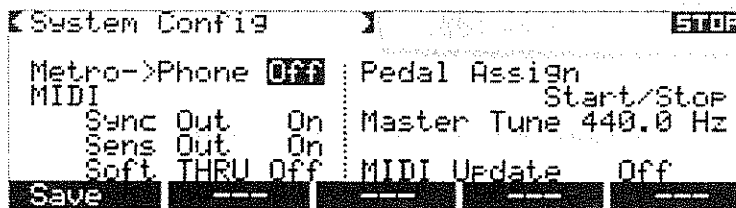
(Timbre bank) [1]—[8]

Specify the Timbre bank from which to load the Rhythm Timbre.

Press **F1** Load to execute the load operation.

# 6. SYSTEM

## 【System Config】.....



### Metro → Phone

(Headphone output switch for metronome) **Sys** [On], [Off]  
Specify whether or not the metronome signal will be heard through the headphones. You can make an independent setting for each song. Press **SONG SELECT** (⇨ P.3-40).

☐ If a plug is inserted into the metronome output jack (rear panel), the metronome will not be heard in the headphones even if this setting is On.

### Sync Out

(MIDI clock message transmit switch) **Sys** [On], [Off]  
Specify whether or not to transmit Clock, Start, Continue, Stop, Song Position Pointer, and Song Select messages from MIDI OUT (⇨ P.3-57). When this function is turned On, these messages will always be transmitted.

### Sens Out

(MIDI active sensing message transmit switch) **Sys** [On], [Off]  
Specify whether or not to transmit Active Sensing messages (refer to Chapter 5 "Glossary") from MIDI OUT.

### Soft THRU

(MIDI switch for MIDI IN → MIDI OUT) **Sys** [On], [Off]  
Specify whether or not messages received at MIDI IN will be immediately retransmitted (echoed back) from MIDI OUT.

☐ During recording, if an external sound source track (9—16) has been selected and the external switch ("EXT" of the TRK PRM) is "On", then Soft Thru will be on (⇨ P.4-52).

### Pedal Assign

(Pedal assign) **Sys**  
Specify the function of a pedal switch (DP-2 etc., sold separately) connected to the FOOT SW jack (rear panel).  
[Off] no function  
[Start/Stop] the same function as the **▶/■** key  
[Punch I/O] While recording a track 1—16, the pedal will have the same effect as the **REC** key (punch in/out).

### Master Tune

(Master tune) **Sys** [427.4]—[452.9]Hz  
Adjust the overall tuning of the MV-30.



**MIDI Update**(MIDI update switch) **Sys** [On], [Off]

If this has been set "on" and if the MV-30 is synchronized to tape sync II or MIDI sync, all data except for notes (containing data other than MIDI messages) from the beginning of the song to the point where playback begins will be transmitted whenever the MV-30 receives data to indicate the song position. This ensures that the sound generator will be in the correct condition to resume playback.

When a Song Position Pointer message is received while the MV-30 is synchronized to MIDI sync, the location will move to the specified point, and all non-note data from the beginning of the song to that point will be transmitted.

When data from tape is received to indicate the song position while the MV-30 is synchronized to tape sync II, the location will move to the specified point, all non-note data from the beginning of the song to that point will be transmitted, and then playback or recording will begin in synchronization with the tape.

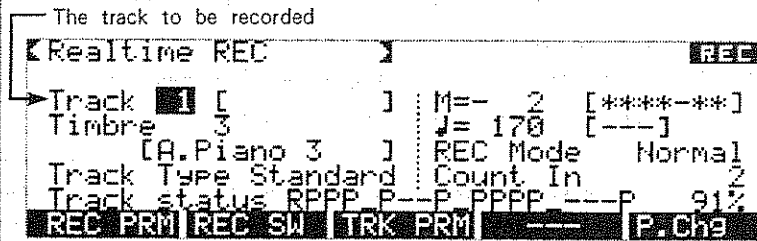
**F1 Save**

Save the settings of this display page (System Configuration parameters) to disk. The next time the System is started up, this data will automatically be loaded. When saving, insert a disk which contains the System into the disk drive.

Even if the MV-30 receives a Continue message, it will not start playback while transmitting all non-note data ("MIDI Update" is displayed in the message area). Wait until "MIDI Update" disappears, and then start playback on the master device (MIDI Sequencer, MTR, etc.). If the master device will transmit both a Song Position Pointer and a Continue messages when playback starts, turn off "MIDI Update" on the MV-30.

# 7. TRACK — REALTIME

## [Realtime REC]



This display page lets you do the following:

- Make basic settings for tracks.
- Perform realtime recording on standard-type tracks.

When recording an internal sound source track, the transmit channel of the connected MIDI keyboard does not matter. Regardless of the channel of the incoming data, it will sound the selected Timbre, and be recorded on the selected track.

### Track

(Select the track) [1]—[16]

Select the track to be recorded.

\*To record the Tempo track, use the [Step Recording] display page. To record the Mixer track, use the [Compu Mixer] display page.

When you have pressed **REC** and are in the recording standby mode, you can also select the recording track by pressing a track key (☞ P.6-8).

### Timbre

(Select the Timbre for the currently selected track) **Song** [1]—[128], [RHY]

Select the Timbre to be played by the selected track.

It is not possible to select a Timbre for tracks 9—16.

### Track Type

(Track type) **Song**

Specify the track type for the track you will record.

- [Standard] Write musical data (events) directly into the track
- [Pattern] First create Patterns, and then write the Pattern Call events into the track.

- If you have set the track type to [Standard], you can record in realtime from this display page. By pressing the TRACK **MICROSCOPE** key, you can record in steptime.
- If you have set the track type to [Pattern], press PATTERN **REALTIME** to record a Pattern in realtime, or press PATTERN **MICROSCOPE** to record a Pattern in steptime. To assign a Pattern, press TRACK **MICROSCOPE**.

It is not possible to insert Pattern Call events into a standard-type track which contains data. Nor is it possible to enter data (events) directly into a track that has a Pattern assigned to it.

If you attempt to convert a pattern-type track which contains Pattern Call events into a standard-type track, the Pattern Conversion (☞ P.4-79) popup window will appear. Execute this function as necessary.

### M=

(Measure) [1]—[9999]

This displays the current measure number. A "+" sign will be displayed to indicate that the position is in the middle of a measure.

[ — ]

**(Rehearsal mark and measure number)**

The left four characters display the name of the current section.

The right two characters display the number of measures from the beginning of the current section. If the current location is more than 100 measures beyond the beginning, " \* \* " will be displayed.

☐ This is for display only. You can set a rehearsal mark by pressing **MARK** (☞ P.3-40).

♪ =

**(Standard tempo) Song [10]—[250]**

Specify the standard tempo. If the tempo has changed as a result of tempo change data, the resulting tempo will be displayed in the square brackets "[ ]".

☐ You can also adjust the tempo by rotating the **VALUE** dial while pressing **TEMPO**.

**REC Mode**

**(Recording mode) Song**

Specify how to record.

**[Normal] (normal)**

The newly recorded data will replace the previous data.

- ① Press **REC** recording standby
- ② Press **▶/■** count-in → begin recording
- ③ Press **▶/■** end recording

**[Mix] (mix)**

The newly recorded data will be added to the previous data.

- ① Press **REC** recording standby
- ② Press **▶/■** count-in → begin recording
- ③ Press **▶/■** end recording

**[Key On] (Key on)**

Recording will begin the instant that you press a key on your MIDI keyboard. The newly recorded data will replace the previous data.

- ① Press **REC** recording standby
- ② Receive a note message from MIDI IN begin recording
- ③ Press **▶/■** end recording

or

- ① Press **REC** recording standby
- ② Press **▶/■** begin playing
- ③ Receive a note message from MIDI IN begin recording from the current location
- ④ Press **▶/■** end recording

In any recording mode, you can also press a pedal (DP-2, etc.) connected to the FOOT SW jack (rear panel) instead of pressing **▶/■** (Pedal Assign ☞ P.4-44).

You can punch in/out regardless of the recording mode. While recording, press **REC** to make the indicator blink, and you will temporarily return to play mode. Press **REC** once again to resume recording.

You can also press a pedal (DP-2, etc.) connected to the FOOT SW jack instead of pressing **REC** (Pedal Assign ☞ P.4-44).

**[PunchMAN] (Manual punch in/out)**

Re-record the desired section. The section is defined by pressing the **REC** key at the beginning of the section and then again at the end of it.

- ① Press **REC** recording standby
- ② Press **▶/■** count-in → begin playing
- ③ Press **REC** begin recording
- ④ Press **REC** end recording but continue playing

\* Each time you press **REC**, you will alternate between Record and Play.

- ⑤ Press **▶/■** end recording

### [Punch I/O] (auto punch in/out)

Re-record the section between the REC Start Point (0) and the REC End Point (9) (⇨ P.3-28).

- ① Press **REC** recording standby
- ② Press **▶/■** count-in → begin playing
- ③ When the REC Start Point is reached begin recording
- ④ When the REC End Point is reached end recording but continue playing
- ⑤ Press **▶/■** end recording

### [Punch IN] (Auto punch in)

Re-record from the REC Start Point (0) (⇨ P.3-28).

- ① Press **REC** recording standby
- ② Press **▶/■** count-in → begin playing
- ③ When the REC Start Point is reached begin recording
- ④ Press **▶/■** end recording

### [Punch OUT] (Auto punch out)

Re-record up to the REC End Point (9) (⇨ P.3-28).

- ① Press **REC** recording standby
- ② Press **▶/■** count-in → begin recording
- ③ When the REC End Point is reached end recording but continue playing
- ④ Press **▶/■** end recording

### [Loop <1, 2, 4, 8, 16>] (Loop)

Perform loop recording from the beginning of the current measure, over the number of measures specified in "< >". When you reach the end of the section, you will return to the first measure of that section, and recording will continue. Newly recorded data will be added to the previous data.

- ① Press **REC** return to the beginning of the current measure, and standby for recording
- ② Press **▶/■** begin recording

**\* When you reach the end of the specified section, you will return to the beginning of the first measure, and recording will continue.**

- ③ Press **▶/■** end recording

### [Loop <P>] (Loop)

Loop record between the REC Start Point (0) and the REC End point (9) (⇨ P.4-104).

- ① Press **REC** jump to the REC Start Point, and standby for recording
- ② Press **▶/■** begin recording

⇨ When using "Loop<P>", make sure that the REC Start point and the REC End point are at least 1 measure apart.

**\* When you record to the REC End Point, you will return to the REC Start Point and recording will continue.**

- ③ Press **▶/■** end recording

**Count In**

(Count-in recording) **Song** [Off], [1], [2]

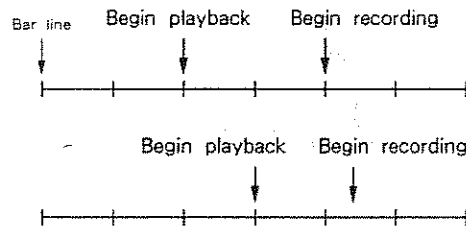
You can use a count-in if the REC Mode has been set to "Normal", "Mix" or "Punch".

☞ REC Mode: Normal, Mix or Punch:

If you are using the count-in function from the beginning of a song, the measure number indicator will display a minus sign (" - ") while the metronome counts the beats before recording begins.

- [Off] Recording will begin from the current location without a count-in.
- [1] If the current position is at the beginning of a measure (M=), playback will start from 1 measure earlier, and recording will start at the current position.  
If the current position is in the middle of a measure (M=+), playback will start from the beginning of that measure, and recording will start at the current position.
- [2] If the current position is at the beginning of a measure (M=), playback will start from 2 measures earlier, and recording will start at the current position.  
If the current position is in the middle of a measure (M=+), playback will start from the beginning of the previous measure, and recording will start at the current position.

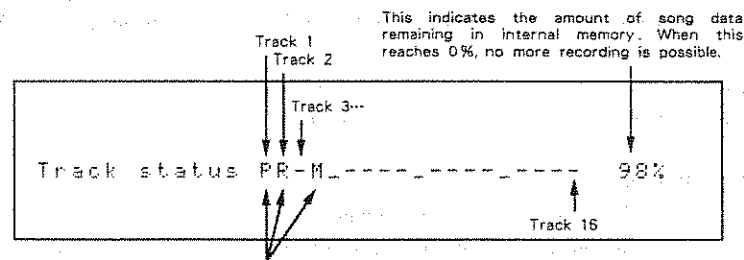
The following diagram illustrates the count-in function (setting [2]).



**Track status**

(Track status)

This indicates the status of each track (1 — 16) from left to right.



A track being played is indicated by "P", being muted by "M", and being recorded by "R".

- [P] playing, or a track that can be played
- [M] a muted track (only the Note messages are muted)
- [R] recording, or a track in record standby
- [ - ] a track which contains no data (This is determined by whether or not the track contains events.)

☞ Use the track keys to switch between [P] and [M]. For external sound source tracks (9—16), press the track keys while holding the **SHIFT** key ( P.6-8).

**%**

This indicates the amount of internal memory which remains. When 0% appears, further recording is not possible.

F1

## REC PRM

The REC PRM window will open.....



Here you can make settings related to track recording.

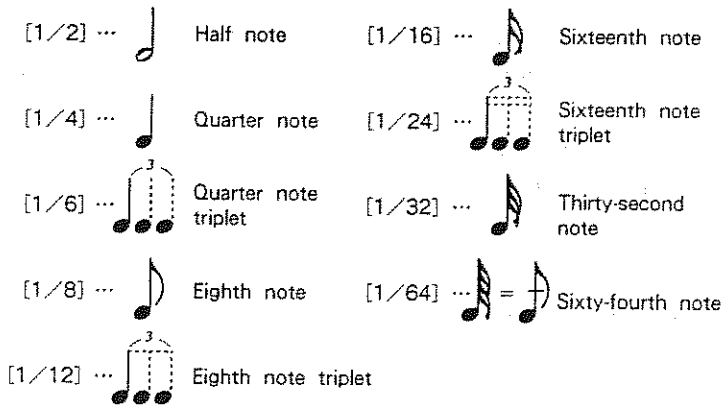
### Quantize

(Recording quantize)

Quantization shifts note-on timings to the nearest specified timing interval, in order to make notes recorded in realtime fall exactly on the beat or subdivision of a beat. If quantization is turned on as you record, note timing will be corrected as the notes are recorded (⇨ P.3-36).

Recording quantize function may have no effect if the MV-30 is receiving a large amount of performance data (such as Pitch Bend messages, Control Change messages, etc.) at one time.

You can select the following quantization intervals:



### Offset

(Recording quantize offset)

[ - 100 ] — [ 100 ]

By shifting the quantization interval forward or backward, you can create subtle rhythmic effects (playing ahead of or behind the beat). Specify the offset in clock units (clock is 1/96th of a quarter note).

If Quantize is Off, this setting will have no effect.

For negative values ( - )      ahead of the beat  
 For positive values ( + )      behind the beat

### Gate Time

(Recording gate time)

[Real]      The time between the incoming Note On and Note Off messages will be recorded as the gate time.

[1] — [9999]      All notes will be recorded with the same length, regardless of the gate time (the time between Note On and Note Off). Specify the note length in clock units (1/96th of a quarter note).

For example, if this is set to a value of 96, the notes you record will be given a length of a quarter note, regardless of how long you actually hold the note on the keyboard.

### Channelize

(Channelize)

When recording the external sound source tracks (9—16), you can convert all incoming data of all channels to the channel you specify here. If this is set to [Off], incoming data from MIDI IN will be recorded with its original channel number and will not be channelized (converted).

This does not apply to the internal sound source tracks (1—8). " \*\*\* " will be displayed for these tracks.

**New Measure Beat**

(Time signature of a new song) **Song**

This specifies the time signature of unrecorded measures.

If you record or insert data after the last measure, or if editing results in data being moved beyond the last measure, new measures will be created using the time signature you specify here.

☐ It is not possible to modify the time signature of a measure which has already been recorded.

**F2 REC SW**

The REC Switch window will open. ....



☐ Note messages are always recorded.  
 ☐ Internal sound source tracks cannot record Exclusive messages or Tune Request messages.

When an item is turned Off, the corresponding message will not be recorded. This can be used to prevent unwanted data from consuming internal song memory.

- PAf Polyphonic Aftertouch **Song**
- C.Cng Control Change **Song**
- P.Chg Program Change **Song**
- CAF Channel Aftertouch **Song**
- Bend Pitch Bender **Song**
- Excl System Exclusive and Tune Request **Song**

**F3 TRK PRM**

The Track Param window will open. ....



Here you can make basic settings for the tracks.

**Track**

(Track selection) [1]—[16]

Select the track you wish to set.

**Name**

(Track name) **Song**

You can give an eight-character name to each track.

**Mode**

(Track mode) **Song**

Specify the transmit mode of the track for playback.

- [Play] all data will be transmitted
- [Mute] note data will not be transmitted (other data will be transmitted)

☐ Use the track keys to switch between [P] and [M]. For external sound source tracks (9—16), press the track keys while holding the **SHIFT** key (☐ P.6-8).

**INT**

(External sound source tracks → internal sound sources on/off) **Song** [On], [Off]

It is possible to play the internal sound sources from the external sound source tracks (☐ P.3-56).

- [On] The data of external sound source tracks will be transmitted to internal sound source tracks. To set the receive channel of the internal sound source tracks, press **PLAY**, press **F5** Page.
- [Off] The data of external sound source tracks will not be transmitted to internal sound sources.

☐ This does not apply to internal sound source tracks (1—8). " \*\*\* " will be displayed for these tracks.

**EXT**

(External sound source tracks → MIDI OUT on/off) **Song** [On], [Off]

This determines whether or not the data of external sound source tracks will be transmitted from MIDI OUT.

[On] The data of external sound source tracks will be transmitted from MIDI OUT.

[Off] The data of external sound source tracks will not be transmitted from MIDI OUT.

☐ This does not apply to internal sound source tracks (1—8). " \* \* \* " will be displayed for these tracks.

**F5 P. Chg**

A popup window will appear.

```
P.Chg # 1 [A.Piano 1 ]
```

Here you can transmit a Program Change message. If you press **F1** during realtime recording, this will be recorded (⇨ P.3-29).

- If the selected track is an internal sound source track, specify the program change number (P.Chg#) you wish to transmit. Program change numbers correspond to Timbre numbers. The Timbre name of the corresponding number will be displayed.
- If the selected track is an external sound source track, specify the Channel on which to transmit the program change, and then specify the program change number.

The instant you press **F1** CHG/REC, the specified program change message will be transmitted to the selected track. If you are recording, the program change will be recorded. (When Timbres are switched, the sound will be muted briefly to avoid noise. It is a good idea to record the Program Change slightly ahead of the first note played by the new Timbre.)

By recording program changes (⇨ P.6-15), you can change the Timbre played by a track in the middle of the song. This means that if the track plays different Timbres in different sections of the track, you should insert a program change message into the beginning of the song in addition to selecting the Timbre here.

Program changes will select the Timbre of the corresponding number.

**DEL**

The Erase window will open.

```
Erase: Track 1
Status All Meas 1 [****-**]
Channel *** to 45 [****-**]
```

Here you can erase events from specified measures of the track (⇨ P.4-61).

**Track**

(The track from which to erase data) [1-16], [1]—[16]

**Status**

(The data to be erased)

If you have selected a standard-type track, specify the type of event you wish to erase.

[All] All events will be erased.

[Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU]

Only the specified type of event will be erased. For a detailed explanation of each event type, refer to P.6-15.



<p><b>Channel</b></p>	<p>(Specify the MIDI channel)</p> <p>If you have selected a standard-type external sound source track (9 — 16), specify the channel of the events to be erased.</p> <p>[All]            Events of all channels will be erased.</p> <p>[1]—[16]        Events of the specified channel will be erased.</p> <div style="border: 1px solid black; padding: 5px;"> <p>☐ If you have set Status to EX/TU, it is not possible to specify the MIDI channel.</p> </div>
<p><b>Meas to</b></p>	<p>(Specify the section to be erased)</p> <p>Specify the measures to erase.</p> <p>Measure        Specify the first measure to be erased.</p> <p>to                Specify the last measure to be erased.</p> <div style="border: 1px solid black; padding: 5px;"> <p>☐ The position of data which follows the erased section will not be affected by the erase operation.</p> </div>
<p>[ — ]</p>	<p>(Rehearsal mark and measure number)</p> <p>The left four characters display the name of the current section.</p> <p>The right two characters display the number of measures from the beginning of the current section. If the current location is more than 100 measures beyond the beginning, “ * * ” will be displayed.</p> <p>Press <b>[F1]</b> Execute to perform the Erase operation.</p> <ul style="list-style-type: none"> <li>● If Status has been set to [Note] or [PAF], a popup window will open, and you can specify the range of key numbers to be erased. This can also be entered by playing a note on your MIDI keyboard.</li> <li>● If Status has been set to [C.Chg], a popup window will open, and you can specify the range of control change numbers to be erased.</li> <li>● If Status has been set to [P.Chg], a popup window will open, and you can specify the range of program change numbers to be erased.</li> </ul>
<p><b>DEL</b></p>	<p>When the REC Mode is “Mix” or “Loop”, press <b>DEL</b> while recording to open the Realtime Erase window.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Realtime Erase Key Range *** &lt;-&gt; ***</p> </div>
<p><b>Key Range</b></p>	<p>You can use a MIDI keyboard to erase note events in realtime.</p> <p>While you press a key on the keyboard, note events of that key will be erased. If you hold down two keys simultaneously, all note events between those two keys will be erased.</p>
<p><b>SHIFT + F1</b> <b>Chorus</b></p>	<p>This allows you to make Chorus settings for the Effect Patch. The settings are the same as in the [Play] page (⇨ P.4-3).</p>
<p><b>SHIFT + F2</b> <b>Reverb</b></p>	<p>This allows you to make Reverb settings for the Effect Patch. The settings are the same as in the [Play] page (⇨ P.4-4).</p>

# 8. TRACK – MICROSCOPE

## [Microscope]

The selected track

Microscope						STOP
Track	Ch	Note	No.	Vel	Gate	
M 10	1	64	F 3	52	75	37 ← Event
			F# 4	64	68	70
			G# 4	68	72	60
			B 3	59	70	60
			B 3	57	65	60

Page ↑ Page ↓ Move View Step

Measure Beat Clock (J = 96 clocks)

☞ If you playback from this page, the selected track will be played (☞ P.6-9).

The Microscope mode allows you to view individual data events in a track. Each line of the display shows one data event.

The event list in the appendix (☞ P.6-15) explains the meaning of each event.

### Track

(Select the track)

[1]—[16], [T], [M]

**F1** Page ↑  
**F2** Page ↓

Press these keys to select different events. In addition, you can move the cursor to the following  positions and

M  — ... rotate the VALUE dial to move up/down by a measure

M  -  ... rotate the VALUE dial to move up/down by a beat

M  - -  ... rotate the VALUE dial to move up/down by an event

☞ You can also use the track keys to select the track (1 — 16). To select an external sound source track, hold **SHIFT** and press a track key (☞ P.6-8).

### Edit individual events

You can edit events one by one. Position the event you wish to edit on the top line, use the cursor to select the desired parameter(s) and then modify the value(s).

#### ■ Enter note number and velocity from the keyboard

- Move the cursor to the note number display and press a key on your keyboard. The note number will be set to the note number you played.
- Move the cursor to the velocity display and press a key on your keyboard. The velocity with which you played that note will be displayed.

☞ The transmit channel of the keyboard does not matter.

### **F3** Move

The "Move Event" window will open.

[ Move Event ] M 10- 2- 0

☞ An event can be moved only within its own track.

Here you can move the selected event (the event that is displayed on the top line).

M

Specify the destination by measure, beat, and clock (one clock is a 1/96th of a quarter note).

Press **[F1] Move** to execute the Move operation.

☐ If the destination is past the end of the song, new measures will be created using the time signature specified in **TRACK [REALTIME]**  
→ **[F1] REC PRM** →  
New Measure Beat (☐ P.4-51).

INS

The "Insert Event" window will open.

[ Insert Event ] M 10- 2- 0

☐ Inserting an event into a track will not shift the position of the following data.

Here you can insert an event.

M

Specify the insertion position by measure, beat, and clock (one clock is a 1/96th of a quarter note).

\* For some types of events, default data values will be entered; edit these to create the desired value.

### ★ Types of event you can insert into tracks 1 — 16

#### ● Standard-type tracks

<b>[F1]</b> Note	note event
<b>[F2]</b> C.Chg	control change event
<b>[F3]</b> P.Chg	program change event
<b>[F4]</b> CAf	channel aftertouch event
<b>[F5]</b> Bend	pitch bender event
<b>[SHIFT] + [F1]</b> Paf	polyphonic aftertouch event
<b>[SHIFT] + [F2]</b> EX	System Exclusive
<b>[SHIFT] + [F3]</b> TU	tune request event

#### ● Pattern-type tracks

<b>[F1]</b> Insert	Pattern call events
Pattern	Specify the Pattern number you wish to insert. The event location will be the beginning of the Pattern.

### ★ Types of event you can insert into the Tempo track [T]

<b>[F1]</b> Insert	tempo change events
Tempo	Specify the tempo value you wish to insert. Tempo changes are expressed as variations on the standard tempo.

☐ If the position of the event to be inserted is past the end of the song, new measures will be created using the time signature specified in **TRACK [REALTIME]**  
→ **[F1] REC PRM** →  
New Measure Beat (☐ P.4-51).

☐ When inserting into an external sound source track, press **[F4] View** and set the MIDI channel to any value other than "All", and the data will be inserted as events of that channel. (except for [EX] and [TU]).

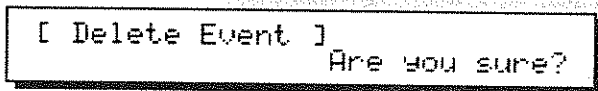
☐ [EX] and [TU] events cannot be inserted into internal sound source tracks (1 — 8).

★ Types of event you can insert into the Mixer track [M]

- F1** INT Lvl                    internal output level event
- F2** INT Pan                    internal pan event
- F3** INT Out                    internal output assign event
- F4** EXT Vol                    external volume event
- F5** EXT Pan                    external pan event
- SHIFT** + **F1** Effect1        effect change event 1
- SHIFT** + **F2** Effect2        effect change event 2
- SHIFT** + **F3** Effect3        effect change event 3
- SHIFT** + **F4** Effect4        effect change event 4
- SHIFT** + **F5** Effect5        effect change event 5

**DEL** Delete

The "Delete Event" window will open.

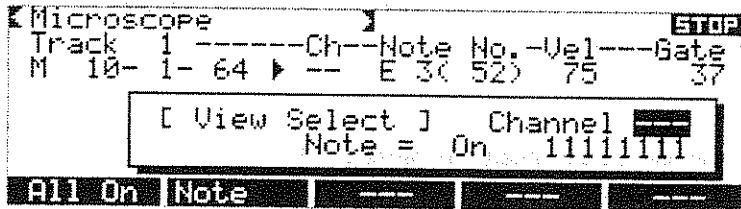


☐ Deleting an event from a track will not affect the position of the data following that event.

Here you can delete the selected event (the event displayed on the top line).

**F4** View

The "View Select" window will open.



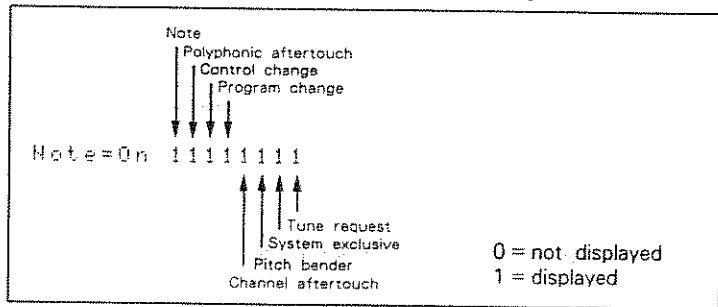
☐ This operation cannot be used for Pattern-type tracks or the Tempo track.

Here you can select the types of data that will appear in the Microscope display.

★ For tracks 1—16 (standard-type)

- Channel    The channel to be displayed (for external sound source tracks).
- [1]—[16]        Only the events of the specified channel will be displayed.
  - [All]            Events of all channels will be displayed.
- In the bottom line you can specify whether each type of status will be displayed or not.

☐ This does not apply to internal sound source tracks (1—8), and will be displayed as "----".



- F1** All On                    All events of the selected channel will be displayed.
- F2** Note                    Only note data of the selected channel will be displayed.

★ For the Mixer track [M]

Select            The type of events to display

- [All]            display all events
  - [INT Lvl], [INT Pan], [INT Out], [EXT Vol], [EXT Pan], [Effect]
- only the selected events will be displayed

Track/Ch        The track/channel to display

- If Select is set to [INT Lvl], [INT Pan], or [INT Out]
  - [All]            data of all tracks will be displayed
  - [1]—[8]        only the events of the specified track will be displayed
- If Select is set to [EXT Vol] or [EXT Pan]
  - [All]            data of all channels will be displayed
  - [1]—[16]      only the events of the specified channel will be displayed

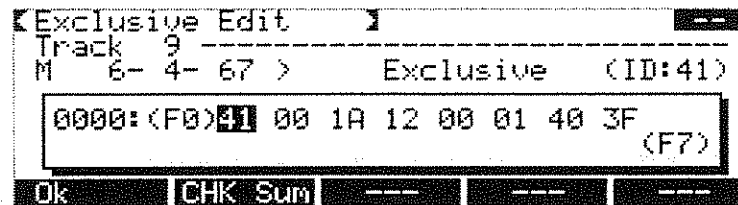
**The Exclusive data editing display** .....

● When editing Exclusive data

In the microscope, select an exclusive event and move the cursor to the "ID" (manufacturer ID). A popup window will open, and the Exclusive data editing display will appear.

● When inserting Exclusive data (only for tracks 9—16)

To insert Exclusive data, press [INS] and then press [SHIFT]+[F2]EX. A popup window will open, and the Exclusive data editing display will appear.



\*(F0) is the beginning of the Exclusive message. The data following (F0) is the manufacturer ID, and (F7) is the end of the Exclusive message.

Roland's manufacturer ID is 41.

[INS]

Insert 00 at the cursor position.

[DEL]

Delete the data at the cursor position.

[F1] OK

Close the Exclusive data editing display.

If you press [EXIT] to close the window, the data you entered will be cancelled.

[F2]

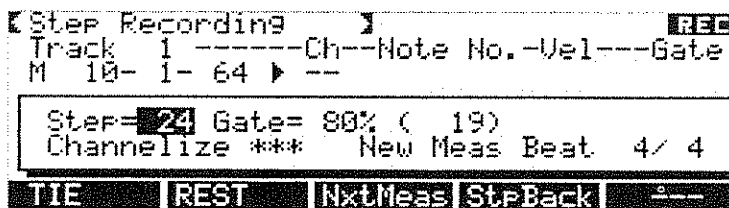
CHK Sum

Calculate a checksum. If the manufacturer ID is other than Roland (41), or if the data size does not conform to the correct format, the display will read "EX Format Error", and the calculation will not be performed. After the checksum has been calculated, the display will read "Complete", and the calculated checksum will be written into the last byte of the Exclusive message.

## [Step Recording]

**F5** Step  
or **REC**

From the [Microscope] display page, press **F5** or **REC**, and the step recording display will appear.



☐ This function cannot be used for Pattern-type tracks or for the Mixer track.  
☐ In this page, it is not possible to play the sequencer (☐ P.6-9).

You can perform step recording (input of events one by one) on standard-type tracks or the Tempo track. If you wish to edit the data you enter, press **REC** or **EXIT** to return to the [Microscope] display page.

☐ Data newly recorded by step recording will replace the original data.

★ For tracks 1—16 (standard-type)

Insert note events into a standard-type track (☐ P.3-18).

**Step=**

(Step time) [1]—[999]

Specify the step time in units of a 1/96th of a quarter note. When you finalize the input, the position will advance by the length of this step time, and you can enter the next event.

☐ By holding **SHIFT** and pressing a numeric key, you can enter the note values printed at the upper right of that numeric key. The chart on P.6-17 shows how note values correspond to step times.

**Gate=**

(Gate time) [1]—[200]%

Specify the percentage of the step time that will automatically be entered as the gate time.

The value calculated from the current step time will be displayed in parenthesis ( ); i.e., the actual gate time that will be entered.

☐ As the value approaches 100%, the notes will be played more tenuto. As the value approaches 1%, the notes will be played more staccato.

**Channelize**

(Channelize) [1]—[16]

This setting determines the channel of the events recorded when you use a MIDI keyboard to record an external sound source track (9—16).

When turned [Off], the channel of each incoming message will not be converted, but will be recorded just as received from MIDI IN.

☐ This has no effect on internal sound source tracks (1—8), and will be displayed as "\*\*\*".

**New Measure Beat**

(Time signature of a new song) **Song**

This specifies the time signature of unrecorded measures.

If you record or insert data after the last measure, or if editing results in data being moved beyond the last measure, new measures will be created using the time signature you specify here.

☐ It is not possible to modify the time signature of a measure which has already been recorded.

**There are two ways to record in step time:**

- Use a MIDI keyboard for input
- Use the numeric keys for input

● **Step recording using a MIDI keyboard**

Note No. (note number)      the note number that was received

Vel (velocity)                the velocity that was received

Gate (gate time)              the value of the Gate = setting

Ch (channel) (tracks 9—16) the value of the Channelize setting

While holding the key, you can move the cursor to the Gate Time display and rotate the VALUE dial to adjust the gate time.

☞ For melodic passages, release each note before pressing the next. If you press another key before releasing the previous key, the notes will be entered as a chord.

When you release a key, that event will be finalized. If you wish to edit an event that has been finalized, press **EXIT** to return to the **[Microscope]** display page.

☞ To enter chords, either play all the notes simultaneously, or press each note individually while depressing the hold pedal connected to your MIDI keyboard. When all of the notes in the chord have been played, release the hold pedal.

● **Step recording using the numeric keys**

Each time you press **ENTER**, the cursor will move from Ch → Note No. →

Vel → Gate, automatically entering the initial values.

The initial values are as follows:

Note No. (note number)      C4 (60)

Vel (velocity)                64

Gate (gate time)              the value of the Gate = setting

Ch (channel) (tracks 9—16) Ch 1

You can edit while the cursor is located on that line. When you edit a value, it will become the new default value.

With the cursor located at Gate, press **ENTER** to finalize the event. If you wish to edit an event that has been finalized, press **EXIT** to return to the **[Microscope]** display page.

☞ Page 3-19 explains a convenient way to enter note numbers.

☞ To enter a chord: With the cursor located at Gate, hold **SHIFT** and press **ENTER**. You can then enter the next event at the same location of the previous event.

**F1** TIE  
or 

(Entering a tie)

The previously entered step time and gate time will be extended.


● Step time =  
the step time of the previous event + the currently displayed step time

● Gate time =  
the step time of the previous event + the currently displayed gate time

**F2** REST  
or 

(Entering a rest)

Advance by the length of the specified step time. (This does not actually enter a "rest" data event.)

**F3** NxtMeas  
or  
**SHIFT** + 

(Rest until the end of the current measure)

Rest until the end of the current measure and advance to the beginning of the next measure.

**F4** StpBack

or



(Step back)

Delete the previous event and move back to the event before it. If this key is pressed during input, the data you are entering will be deleted, and you will return to the previous event.

★ For the Tempo track [T]

You can enter Tempo Change events into the Tempo track.

**Step=**

(Step time)

[1]—[999]

Specify the step time in units of 1/96th of a quarter note. When the input has been finalized, the song position will advance by the step time specified here, and you can enter the next event.

☞ By holding **SHIFT** and pressing a numeric key, you can enter the note value printed at the upper right of that numeric key. The chart on page 6-17 shows how note values correspond to step times.

**New  
Measure  
Beat**

(Time signature of a new song) **Song**

This specifies the time signature of unrecorded measures.

If you record or insert data after the last measure, or if editing results in data being moved beyond the last measure, new measures will be created using the time signature you specify here.

☞ It is not possible to modify the time signature of a measure which has already been recorded.

● **Enter data using the numeric keys**

Each time you press **ENTER**, a Tempo Change event will be inserted. If you edit the value, the new value will be used as the default value. If you wish to edit an event that has been finalized, press **EXIT** and return to the **[Microscope]** display page.



# 9. TRACK — EDIT

## [Erase]

```

[Erase]                               STOP
Track      [ 1 ] Measure      1 [****-**]
[          ] to      45 [****-**]
Status     All
Channel    ***
Execute    ---
  
```

This operation erases events from a track (⇨ P.4-52).

**Track** (The type of Track to erase) [1 - 16], [1]—[16], [Tempo], [Mixer]

**Status** (The type of MIDI status to erase)

If you have selected a standard-type track, you can specify the type of events to be erased.

- [All] All events will be erased.
- [Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU] Only the specified type of event will be erased.  
For details of each type of event, refer to P.6-15.

**Channel** (The MIDI channel to erase)

If you have selected a standard-type external sound source track (9—16), you can specify the MIDI channel that will be erased.

- [All] Events of all channels will be erased.
- [1]—[16] Events of the specified channel will be erased.

☐ If you have set the Status to EX or TU, it is not possible to specify the Channel.

**Measure to** (The section to be erased)

- Measure Erase from the beginning of this measure ...
- to ... to the end of this measure.

☐ The Erase operation will not affect the location of data which follows the erased section.

**[ — ]** (Rehearsal mark and measure number)

The left four characters display the name of the current section.

The right two characters display the number of measures from the beginning of the current section. If the current location is more than 100 measures beyond the beginning, " \* \* " will be displayed.

☐ This is for display only. You can set a rehearsal mark by pressing **MARK** (⇨ P.3-40).

**[F1] Execute**

Execute the Erase operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be erased. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be erased.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be erased.
- If you have selected [Mixer] as the Track, a popup window will open allowing you to specify the type of event to be erased.

**[Merge]**

```

Merge
-----
Source Track (1)  1  [
Source Track (2)  2  [
Destination Track 3  [
Execute  ---  ---  ---  ---
STOP
  
```

This operation allows you to combine (merge) the data of two tracks into one track, and then write it into a specified destination track. The two source tracks will be empty.

Pattern-type tracks cannot be selected.

**Source Track (1)** (A track to merge) [1]—[16]  
Select a standard-type track.

**Source Track (2)** (Another track to merge) [1]—[16]  
Select a standard-type track. It is not possible to select the same track as Source Track (1).

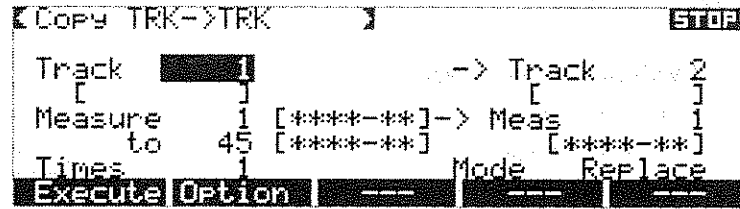
**Destination Track** (The track into which to write the data) [1]—[16]  
Select a standard-type track.

**F1 Execute** Execute the Merge operation.

All the previous data in the Destination Track will be overwritten by the merged data.

- If either Source Track is an internal sound source track, and the Destination Track is an external sound source track, a popup window will open allowing you to specify the channel that the internal sound source track data will be written as.

**[Copy TRK → TRK]** .....



This operation copies events from a standard-type track, the Tempo track, or the Mixer track to any specified location.

**Track**

(Track from which to copy) [All], [1]—[16], [Tempo], [Mixer]  
 Select a standard-type track, the Tempo track, or the Mixer track.

It is not possible to select a pattern-type track.  
 If [All] has been selected, Pattern Call events in pattern-type tracks will also be copied.

**Measure to**

(The range to be copied)  
 Measure Copy from the beginning of this measure ...  
 to ... to the end of this measure.

**[ — ]**

(Rehearsal mark and measure number)  
 The left four characters display the name of the current section.  
 The right two characters display the number of measures from the beginning of the current section. If the current location is more than 100 measures beyond the beginning, " \* \*" will be displayed.

This is for display only. You can set a rehearsal mark by pressing **MARK** (P.3-40).

**Times**

(Number of times to copy) [1]—[100]  
 By specifying a value of 2 or more, you can copy the data two or more times.

**→ Track**

(Destination track) [All], [1]—[16], [Tempo], [Mixer]  
 Select a standard-type track as the copy destination.

If you have specified a copy source of [All], [Tempo], or [Mixer], you will not be able to specify a different track as the copy destination.

**→ Meas**

(Destination measure)  
 The data will be copied into the destination track starting at the beginning of the measure you specify here.

**Mode**

(Copy mode)  
 [Replace] The copied data will replace the previous data in the destination measures.  
 [Merge] The copied data will be combined with the previous data in the destination measures.

**F2 Option**

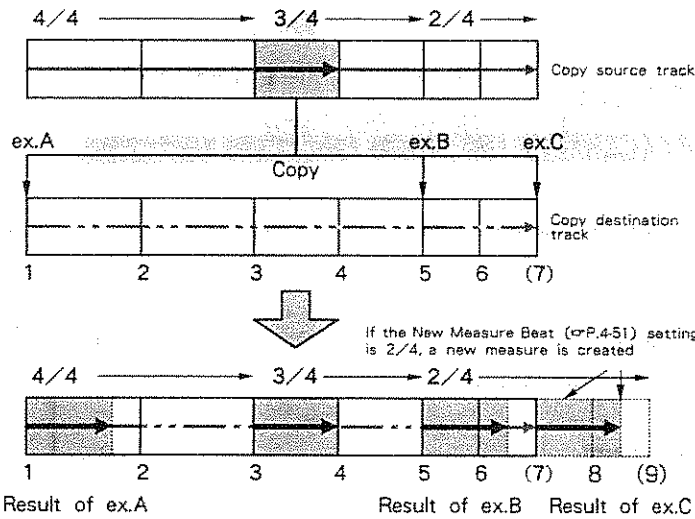
If the copy source track is [All] or a standard-type track, you can specify the channel or status of the events to be copied.



<b>Source Channel</b>	<p>(The channels to be copied) <span style="float: right;">[All], [1]—[16]</span></p> <p>If the copy source is an external sound source track, only the events of the channel you specify here will be copied.</p>	<p>☐ If you have selected [All], and if the copy destination track is an internal sound source track, the data of all channels will be merged and copied.</p>
<b>Status</b>	<p>(The types of MIDI status to be copied)</p> <p>Only the events of the type you select here will be copied.</p> <p>[All] All events will be copied.</p> <p>[Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU]</p> <p>Only the events of the specified type will be copied.</p> <p>For details of each type of event, refer to P.6-15.</p>	
<b>Dest. Channel</b>	<p>(Specify the channel to write the events into) <span style="float: right;">[1]—[16]</span></p> <p>If the copy source is an internal sound source track and the copy destination is an external sound source track, or if you want to convert the Source Channel into a specific channel, this setting will determine the channel that the data will be written as.</p>	<p>☐ If you have specified a Status of EX/TU, this cannot be set.</p>
<b>[F1] Execute</b>	<p>Execute the Copy operation.</p> <ul style="list-style-type: none"> <li>● If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be copied. You may press a note on your MIDI keyboard to specify note settings.</li> <li>● If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be copied.</li> <li>● If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be copied.</li> <li>● If you have selected [Mixer] as the Track, a popup window will open allowing you to specify the type of event to be copied.</li> </ul>	

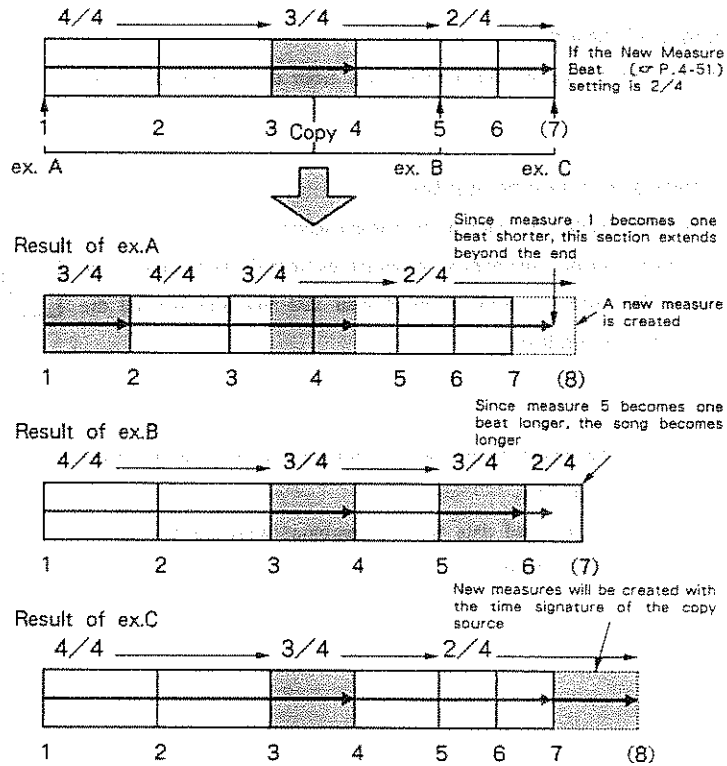
● When Track=[1]—[16] or [Mixer]

When you copy between tracks 1—16, or within the Mixer track, the time signature of the copy destination will not change.

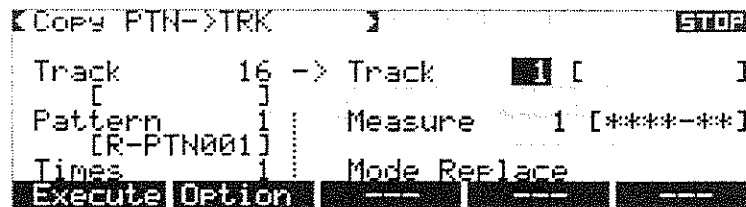


● When Track=[All] or [Tempo]

When you copy [All] or inside the Tempo track, the time signature of the copy destination will be rewritten. The result will be as if the bar lines were moved backward or forward.



**[Copy PTN → TRK]** .....



This operation copies the data from a Pattern into the specified location of a standard-type track.

It is not possible to specify an area within a Pattern.

**Track** (Copy source track) [1]—[16]

Select the track which contains the copy source Pattern.

You can select either standard-type or pattern-type tracks.

**Pattern** (Copy source Pattern) [1]—

**Times** (Number of times to copy) [1]—[100]

By setting this to 2 or more, you can copy the data two or more times.

**→ Track** (Copy destination track) [1]—[16]

Select a standard-type track.

Pattern-type tracks cannot be selected.

**→ Measure** (Copy destination location)

The data will be copied into the destination track from the beginning of this measure.

**[ — ]** (Rehearsal mark and measure number)

The left four characters display the name of the current section.

The right two characters display the number of measures from the beginning of the current section. If the current location is more than 100 measures beyond the beginning, " \* \* " will be displayed.

This is for display only. You can set a rehearsal mark by pressing **MARK** (P.3-40).

**Mode** (Copy mode)

[Replace] The selected data will overwrite the data in the copy destination.

[Merge] The selected data will be combined with the data at the copy destination.

**F2** Option

You can specify the channel and type of events to be copied.

```

Option
Source Channel  [1-16]
Status         H11
Dest. Channel  ***
  
```

**Source Channel**

(Specify the channel to copy) [All], [1]—[16]

If the copy source track is an external sound source track, only the events of the channel you specify here will be copied.

- [All]            Events of all channels will be copied.  
 [1]—[16]        Events of only the specified channel will be copied.

If you have set the Status to EX/TU, this cannot be set.  
 If you have selected [All], and if the copy destination track is an internal sound source track, data of all channels will be merged and copied.

**Status**

(Specify the MIDI status to copy)

Only the events of the status you select here will be copied.

- [All]            All events will be copied.  
 [Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU]  
                  Only the events of the specified type will be copied.  
                  For details of each type of event, refer to P.6-15.

**Dest. Channel**

(Specify the channel to write the events into) [1]—[16]

If the copy source is an internal sound source track and the copy destination is an external sound source track, or if you want to convert the Source Channel into a specific channel, the data will be written with the channel number you specify here.

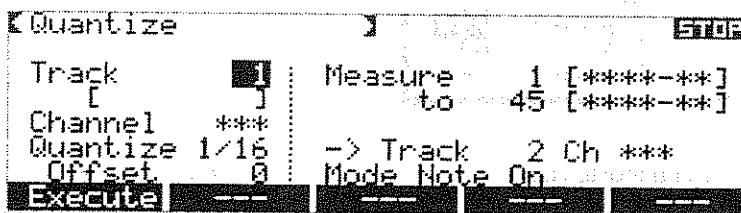
If you have set the Status to EX/TU, this cannot be set.

**F1** Execute

Execute the Copy operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be copied. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be copied.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be copied.

# [Quantize]



The Quantize operation shifts the note event data (in a standard-type track) to the nearest specified beat or sub-division of a beat. This process corrects timing irregularities of Key On, Key Off, or Gate Time data. The quantized data will be written into the standard-type track you specify.

It is not possible to restore quantized data to its original form.

## Track

(Track to quantize) [1]—[16]  
Select a standard-type track.










## Channel

(Channel to quantize) [All], [1]—[16]  
If the track to quantize is an external sound source track, only the note events of the channel you specify here will be quantized and written.

If the destination track is an internal sound source track, selecting [All] will cause the data of all channels in the source track to be merged and written.

## Quantize

(Quantization resolution)  
Specify the resolution at which the data will be quantized (⇨ P.3-36).

[1/2] ...  Half note	[1/16] ...  Sixteenth note
[1/4] ...  Quarter note	[1/24] ...  Sixteenth note triplet
[1/6] ...  Quarter note triplet	[1/32] ...  Thirty-second note
[1/8] ...  Eighth note	[1/64] ...  Sixty-fourth note
[1/12] ...  Eighth note triplet	

## Offset

(Quantization offset) [- 100]—[100]  
This setting shifts the quantized timing forward or backward in units of a clock (1/96th of a quarter note), allowing you to create subtle rhythmic effects (playing ahead of or behind the beat).

If Quantize is Off, this setting will have no effect.

- Negative ( - ) values      play ahead of the beat
- Positive ( + ) values      play behind the beat

## Measure to

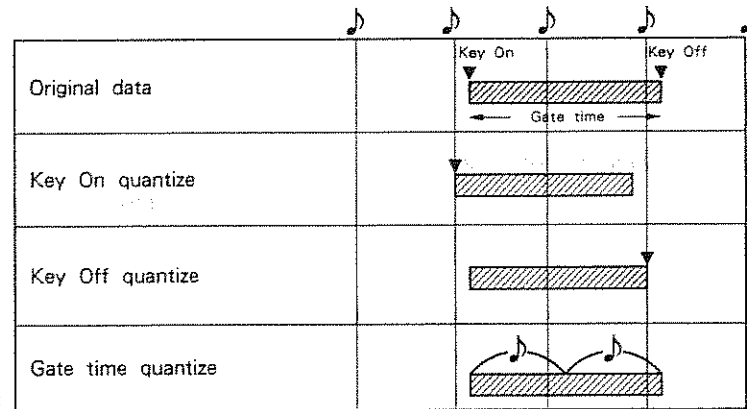
(The area to be quantized)  
Measure                      Quantize from the beginning of this measure ...  
to                                      ... to the end of this measure.



**Mode****(Quantize mode)**

This setting determines which data will be quantized.

- [Note On] the Key On timing (the time at which the note was pressed) will be corrected
- [Note Off] the Key Off timing (the time at which the note was released) will be corrected
- [Gate] the Gate Time (the time between key on and key off) will be corrected

**→ Track****(The destination track)****[1]—[16]**

The quantized data will be written into the destination track, overwriting all the previous data in that track.

Select a standard-type track.

**Ch****(Specify the channel to be written)****[1]—[16]**

If the track to be quantized is an internal sound source track and the writing destination is an external sound source track, or if you want to convert channel to be quantized into a specific channel, this setting determines the channel that the data will be written as.

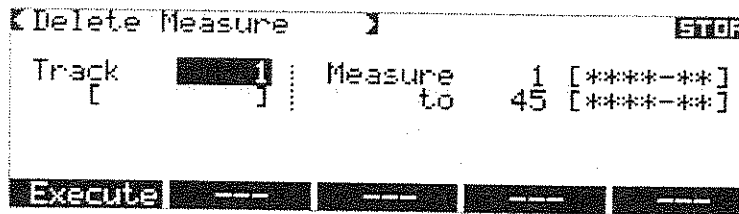
**F1 Execute**

Execute the Quantize operation.

A popup window will open and you can specify the range of notes to be quantized. You may use your MIDI keyboard to specify the notes.

☞ If, as a result of quantization, data is re-located after the last measure, a new measure will be created as determined by the New Measure Beat setting (P.4-51).  
If, as a result of quantization, data is re-located before the beginning of the first measure, it will be written into the first beat of the first measure.

## [Delete Measure]



This operation deletes all events from the specified measures and moves the following measures forward to fill the gap.

**Track**

(The track from which to delete measures)

[All], [1]—[16], [Tempo], [Mixer]

☐ if you select [All], the position of rehearsal marks will also be shifted (☐ P.4-108).

**Measure to**

(The range to delete)

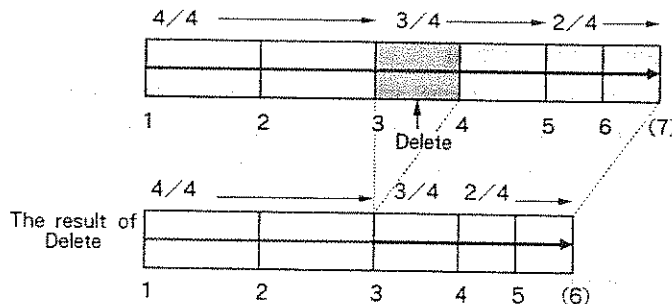
Measure Delete from the beginning of this measure ...  
to ... to the end of this measure.

**F1 Execute**

Execute the Delete Measure operation.

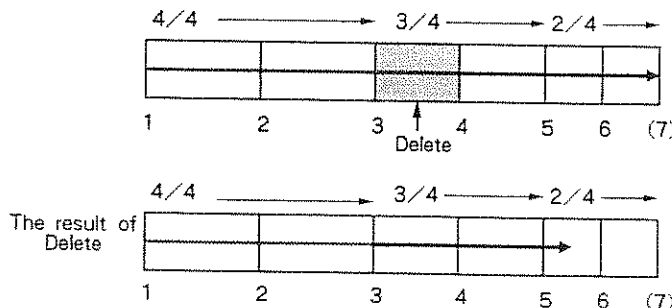
● **Track=[All]**

If you have selected all tracks (All), the specified measures and all their data will be deleted.



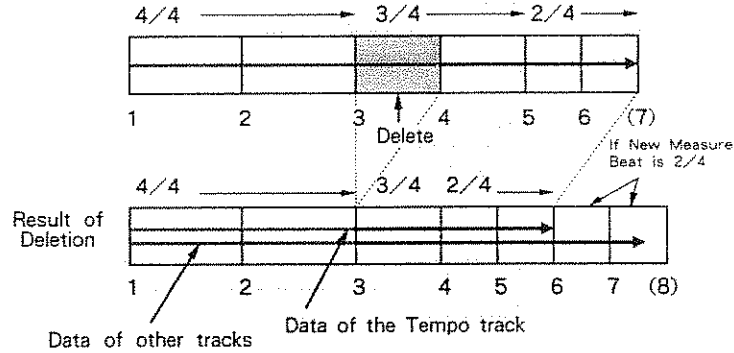
● **Track=[1]—[16], or [Mixer]**

If you have selected a track [1]—[16] or the Mixer track, the data of the specified measures will be deleted, and the following data will be moved forward (toward the beginning of the song). The time signatures of the measures will not be affected.

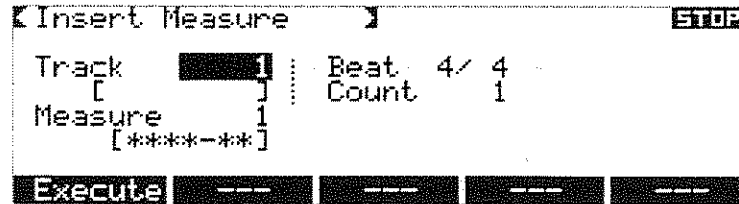


● Track = [Tempo]

The specified measures of the tempo track will be deleted. If this makes the data of tracks 1—16 or the Mixer track extend beyond the last measure, new measures will be created as specified by the New Measure Beat setting ( P.4-51).



**[Insert Measure]**.....



This operation inserts blank measures into a track, and moves all the following data backward (toward the end of the song).

- Track** (The track into which to insert measures) [All], [1]—[16], [Tempo], [Mixer]
- Measure** (The insertion point) Specify the location (measure number) at which the measures will be inserted: the measures will be inserted at the beginning of this measure.
- Beat** (The time signature of the measures to insert)
- Count** (The number of measures to insert) [1]—[100]

☐ If you select [All], rehearsal marks will also be moved ( P.4-106).

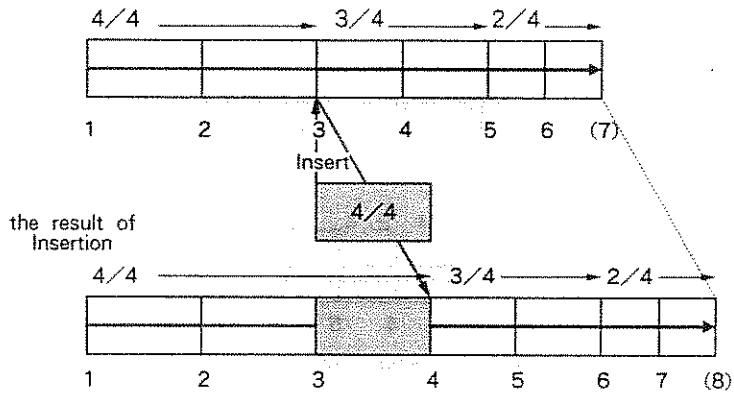
☐ It is not possible for a song to be longer than 8,998 measures.

**F1** Execute

Execute the Insert Measure operation.

● Track=[All]

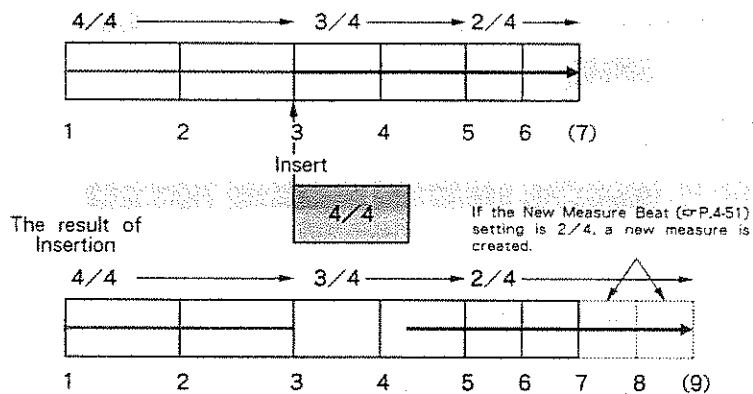
The measures will be inserted, and the following data will be moved backward.



● Track=[1]—[16], or [Mixer]

Data will be moved backward according to the length of the inserted measures.

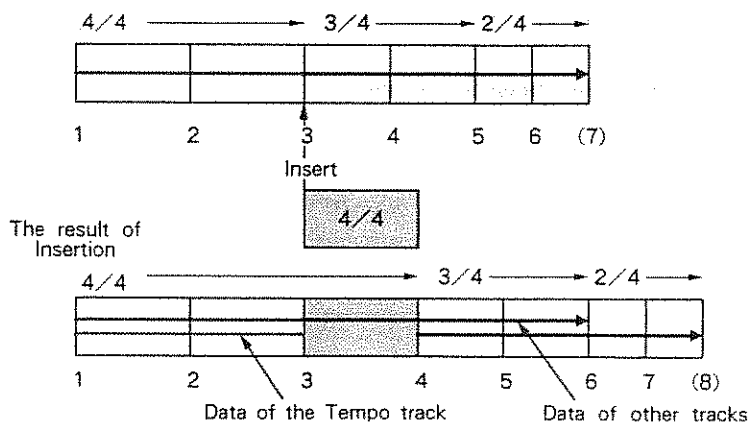
The time signatures will not change.



● Track=[Tempo]

The measures will be inserted but the data of the other tracks will not move.

(The result is as if the bar lines were moved toward the end of the song.)



**[Extract]**

```

[Extract]
Track      [ 1 ] Measure 1 [****-**]
           [ ] to    45 [****-**]
Status    All
Channel   *** -> Track 2 Ch ***
Execute  ---

```

This operation extracts (removes) events from a standard-type track and places them in the same location of another standard-type track.

Pattern-type tracks cannot be selected.

- Track** (The track from which to extract data) [1]—[16]  
 The extracted data will be deleted from the track.  
 Select a standard-type track.
- Status** (The type of status to extract)  
 Select the type of event to extract.  
 [All] Extract all events.  
 [Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU]  
 Only the events of the specified type will be extracted.  
 For details of each type of event, refer to P.6-15.
- Channel** (The MIDI channel to extract) [All], [1]—[16]  
 If you have selected a standard-type external sound source track (9—16), only the events of this channel will be extracted.  
 [All] Extract events of all channels.  
 [1]—[16] Extract events of the specified channel.
- Measure to** (The range from which to extract)  
 Measure Extract from the beginning of this measure ...  
 to ... to the end of this measure.
- > Track** (Destination track) [1]—[16]  
 The extracted events will be written and combined with the data at the extract destination track.  
 Select a standard-type track.
- Ch** (Specify the channel to be written) [1]—[16]  
 If the track from which the data is extracted is an internal sound source track and the writing destination is an external sound source track, or if you want to convert channel to be extracted into a specific channel, you can specify the channel that the data will be written as.

If you have set the Status to EX or TU, it is not possible to specify the Channel.  
 If you select "All", data of all channels will be merged and written if the writing destination track is an internal sound source track.

It is not possible to select the same track as the extraction source track.

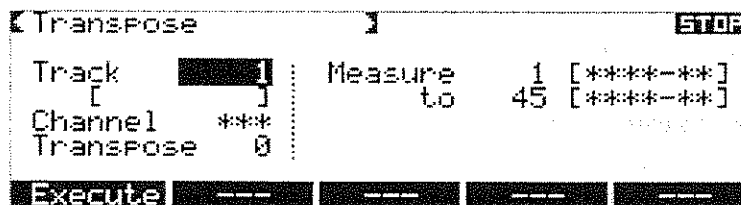
If a Status of EX/TU has been selected, this cannot be set.

**F1 Execute**

Execute the Extract operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be extracted. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be extracted.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be extracted.

**[Transpose]**.....



This operation transposes the Note events and Polyphonic Aftertouch events in a standard-type track.

**Track** (The track to transpose) [1—16], [1]—[16]  
Select a standard-type track.

**Channel** (The MIDI channel to transpose) [1—16], [1]—[16]  
If you have specified a standard-type external sound source track (9—16), only the events of the channel you select here will be transposed.

- [1—16] Transpose events of all channels.
- [1]—[16] Transpose events of the specified channel.

☞ If the Track is set to [1—16], you cannot specify the channel. All note event and polyphonic aftertouch events will be transposed.

**Transpose** (Amount of transposition) [ - 99]—[99]  
Specify the amount of transposition in chromatic steps.

**Measure to** (The section to transpose)  
Measure Transpose from the beginning of this measure ...  
to ... to the end of this measure.

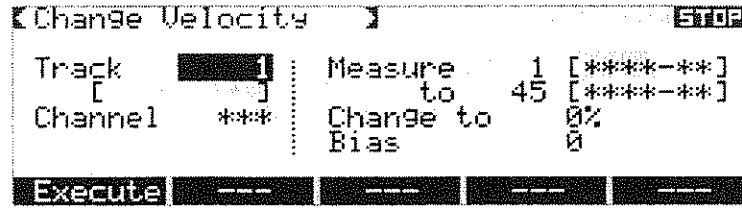
☞ If transposition would result in a note number less than 0 (or greater than 127), the note number will be adjusted to 0 (or 127). This means that even if you later transpose again with the opposite transposition values, the note number will not be restored to its original value.

**F1 Execute**

Execute the Transpose operation.

A popup window will open allowing you to specify the range of notes which will be transposed. You may press a note on your MIDI keyboard to specify note settings.

# [Change Velocity]



This operation modifies the velocity (refer to Chapter 5 "Glossary") of note events in a standard-type track.

Pattern-type tracks cannot be selected.

**Track** (The track to modify) [1—16], [1]—[16]  
Select a standard-type track.

**Channel** (The MIDI channels to be modified) [1—16], [1]—[16]  
If you have selected a standard-type external sound source track, velocity will be modified only for the note events of the channel you specify here.

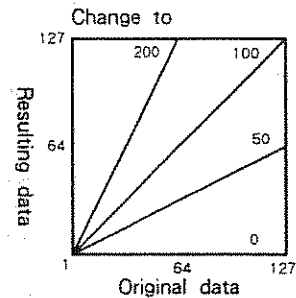
- [1—16] Modify the velocity of note events of all channels.
- [1]—[16] Modify the velocity of note events of the specified channel.

If you have set Track to [1—16], you cannot specify the channel. The velocity of all note events will be modified.

**Measure to** (The measures to be modified)  
Measure Modify note velocities from the beginning of this measure ...  
to ... to the end of this measure.

**Change to** (Modification ratio) [0]—[200]%  
Specify how the velocity values will be compressed or expanded. For a value of 100, there will be no change.

**Bias** (Modification value) [-127]—[127]  
After the original velocity has been multiplied by the "Change to" ratio, this "Bias" value will be added to, or subtracted from, the result.



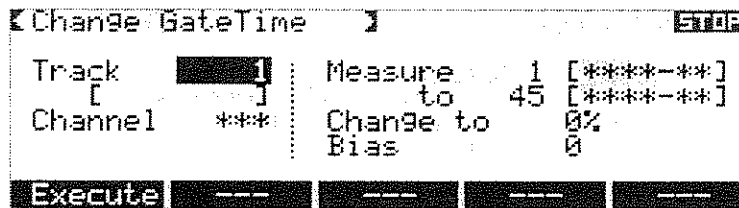
If the Change Velocity operation would result in a velocity less than 1 (or greater than 127), the velocity will be adjusted to 1 (or 127). In such cases, even if you execute the Change Velocity operation once again with the opposite values, the note velocities will not be restored to their original values.

**F1 Execute**

Execute the Change Velocity operation.

A popup window will open allowing you to specify the range of notes to which the operation will apply. You may press a note on your MIDI keyboard to specify note settings.

# [Change Gate Time].....



This operation modifies the gate time (refer to Chapter 5 "Glossary") of note events in a standard-type track.

**Track** (The track to modify) [1—16], [1]—[16]  
Select a standard-type track.

**Channel** (The MIDI channels to be modified) [All], [1]—[16]  
If you have selected a standard-type external sound source track (9—16), the gate time will be modified only for note events of the channel you specify here.

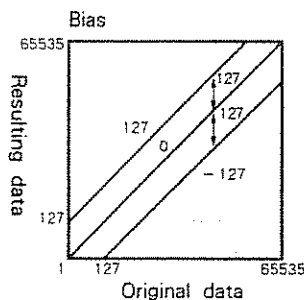
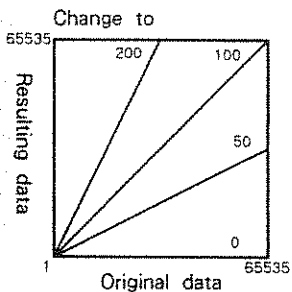
- [All] Modify the gate time of note events of all channels.
- [1]—[16] Modify the gate time of note events of the specified channel.

☐ If you have selected a Track [1—16], you cannot specify the channel. The gate time of all note events will be modified.

**Measure to** (The measures to be modified)  
Measure Modify gate time from the beginning of this measure ...  
to ... to the end of this measure.

**Change to** (Modification ratio) [0]—[200]%  
Specify how the gate time values will be compressed or expanded. For a value of 100, there will be no change.

**Bias** (Modification value) [-127]—[127]  
After the original gate time has been multiplied by the "Change to" ratio, this "Bias" value will be added to, or subtracted from, the result.



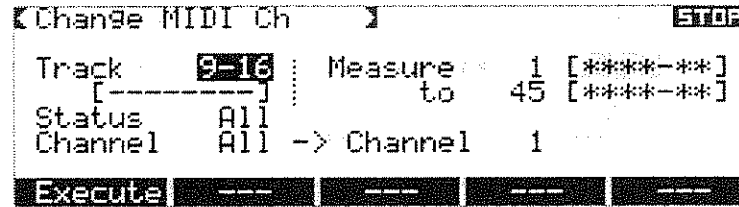
☐ If the Change Gate Time operation would result in a gate time less than 1 (or greater than 65535), the gate time will be adjusted to 1 (or 65535). In such cases, even if you execute the Change Gate Time operation once again with the opposite values, the gate times will not be restored to their original values.

**F1 Execute** Execute the Change Gate Time operation.

A popup window will open allowing you to specify the range of notes to which the operation will apply. You may press a note on your MIDI keyboard to specify note settings.



## [Change MIDI Ch]



This operation converts the MIDI channel of events in an external sound source track (9—16).

Pattern-type tracks cannot be selected.

**Track** (The track to be affected) [9—16], [9]—[16]  
Select a standard-type track.

**Status** (The MIDI status to be affected)  
The channel will be converted only for the events of the type you specify here.

[All] The channel will be converted for events of all types.

[Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend]

The channel will be converted only for events of the specified type. For details of each type of event, refer to P.6-15.

**Channel** (The MIDI channel to be affected) [All], [1]—[16]  
Only the events of the channel you specify here will be affected.

[All] Events of all channels will be converted to the specified channel.

[1]—[16] Events of this channel will be converted to the specified channel.

If this operation converts data to the same MIDI channel as data which already exists in the same track, it will no longer be possible to separate the two sets of data.

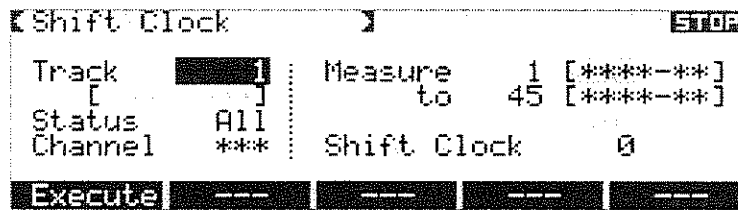
**Measure to** (The range to be affected)  
Measure Convert events from the beginning of this measure ...  
to ... to the end of this measure.

**→ Channel** (The MIDI channel after conversion) [1]—[16]

**F1 Execute** Execute the Change MIDI Channel operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be affected. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be affected.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be affected.

## [Shift Clock]



This operation shifts (moves) the location of events in the track in units of one clock (1/96th of a quarter note).

**Track** (The track to be shifted) [1—16], [1]—[16]

**Status** (The MIDI status of the events to be shifted)  
 Only the events of the type you select here will be shifted.  
 [All] All events will be shifted.  
 [Note], [PA], [C.Chg], [P.Chg], [CA], [Bend], [EX], [TU]  
 Only the events of the specified type will be shifted.  
 For details of each type of event, refer to P.6-15.  
 If you have selected a pattern-type track, Pattern Call events will be shifted.

**Channel** (The MIDI channel to be shifted) [All], [1]—[16]  
 If you have selected a standard-type external sound source track, the event will be shifted only for the channel you specify here.

[All] Events of all channels will be shifted.  
 [1]—[16] Events of the specified channel will be shifted.

**Measure to** (The range to be shifted)  
 Measure All the events from the beginning of this measure ...  
 to ... until the end of this measure will be shifted.

**Shift Clock** (Distance to shift) [-384]—[384]  
 Specify the distance to shift the data, in one clock steps (♩ = 96 clocks). Positive (+) values will shift the data forward (toward the end of the song).

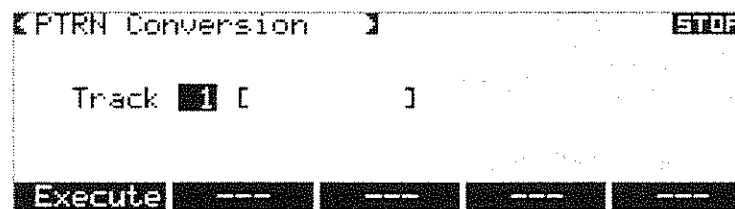
☞ If, as a result of this operation, data is moved beyond the end of the last measure, new measures will be created according to the New Measure Beat setting (☞ P.4-51). If data is moved before the beginning of the first measure, it will be placed at the beginning of the first measure.

**F1 Execute**

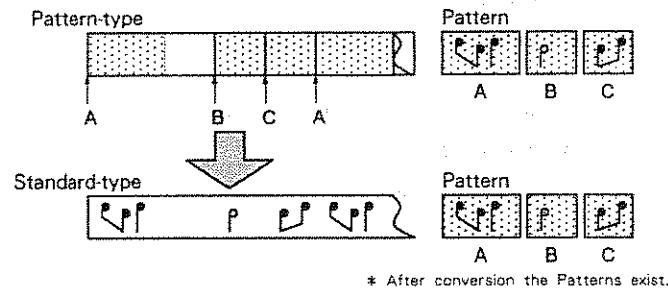
Execute the Shift Clock operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be shifted. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be shifted.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be shifted.

**[PTRN Conversion]**



This operation converts a pattern-type track into a standard-type track (⇨ P.4-46).



**Track**

(The track to convert)

[1]—[16]

Select a pattern-type track.

**F1 Execute**

Execute the Pattern Conversion operation.

☐ It is not possible to convert a standard-type track into a pattern-type track.

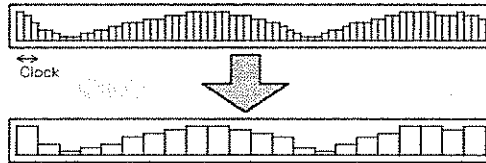
**【Mixer Data Thin】** .....

```

[Mixer Data Thin]                               [STOP]
Select [All] Measure 1 [****-**]
Track/Ch All to 45 [****-**]
Clock 0
Execute | --- | --- | --- | ---

```

This operation 'thins out' the Mixer track data, thereby reducing the overall amount.

**Select**

(The type of event to be thinned)

[All], [INT Lvl], [INT Pan], [INT Out], [EXT Vol], [EXT Pan]

For details of each type of event, refer to P.6-16.

**Track/Ch**

(The track/channel for which to thin out events)

● If Select is [INT Lvl], [INT Pan], or [INT Out]

[All] Events of all tracks will be thinned out.

[1]—[8] Only of the specified track will be thinned out.

● If Select is [EXT Vol] or [EXT Pan]

[All] Events of all channels will be thinned out.

[1]—[16] Only of the specified channel will be thinned out.

**Clock**

(The thin out interval)

[0]—[192]

Specify the thin out interval in one clock steps (♩ = 96 clocks).

\* Take care not to set the Clock value too high.

**Measure****to**

(The area to be thinned)

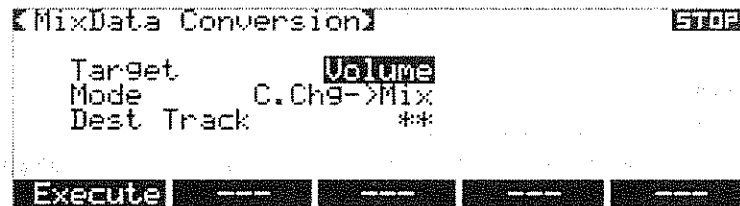
Measure Thin out data from the beginning of this measure ...

to ... to the end of this measure.

**[F1] Execute**

Execute the Mixer Data Thin operation.

## 【Mix Data Conversion】



This operation allows you to convert compu mixer Volume data (INT Lvl and EXT Vol) or Pan data (INT Pan and EXT Pan) into Control Change (C.Chg) number 7 and number 10 of each track. The opposite is also possible.

When you execute the conversion operation, the original data will be lost.

### How to use this operation

Data recorded by the compu mixer is stored in the Mixer track as events unique to the MV-30. However Control Change messages 7 (volume) and 10 (pan) received at MIDI IN are recorded directly into each track in the same way as any other type of event (notes, etc.). Either type of data will control the actual Level and Pan values in the **【Play】** page. The data of the compu mixer will be indicated by fader movements in the **【Compu Mixer】** page, but Control Change data recorded from MIDI IN will not be indicated by fader movements in the **【Compu Mixer】** page.

This function allows you to convert Control Change events of number 7 (volume) and 10 (pan) into Mixer track data, so that the data will make the faders of the **【Compu Mixer】** page move. This is convenient when you have loaded data from another sequencer, and wish to use the faders to re-adjust the volume balance.

Since the opposite operation is also possible, you can use the save operations to transfer MV-30 songs containing compu mixer data to another sequencer.

### Target

(type of data to be converted)	[Volume],[Pan]
[Volume]	Volume change data in the Mixer track (INT Lvl and EXT Vol) and Control Change no.7 events in all tracks will be converted.
[Pan]	Pan change data in the Mixer track (INT Pan and EXT Pan) and Control Change no.10 events in all tracks will be converted.

☞ The data of the writing destination will remain, and will be combined with the new data. If unwanted data already exists, use the Erase operation to erase the data before using this Mix Data Conversion operation (P.4-61).

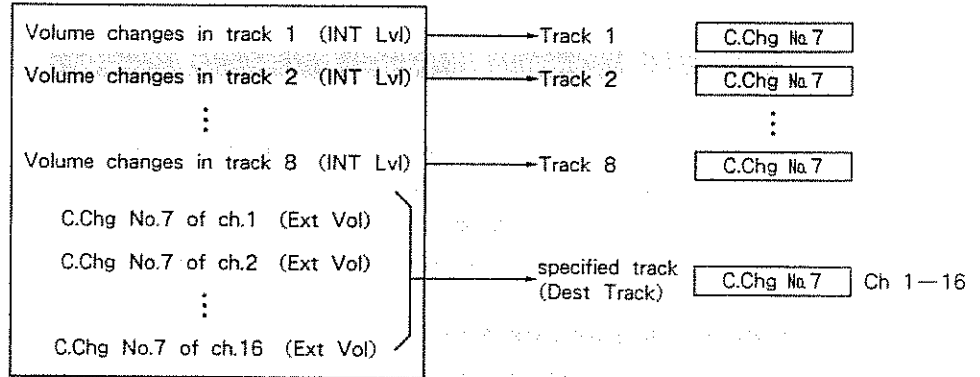
**Mode**

(conversion mode)

[Mix → C.Chg] As shown in the following diagram, Mixer track data will be converted into Control Change events in the tracks.

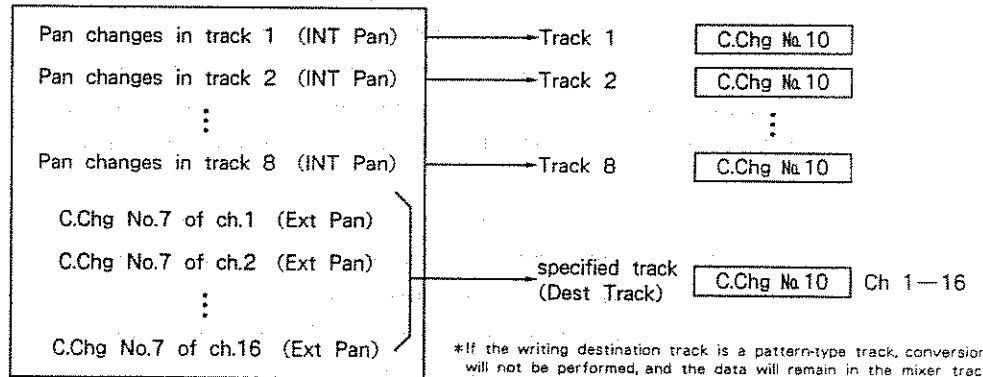
**Target Volume**

Mixer track



**Target Pan**

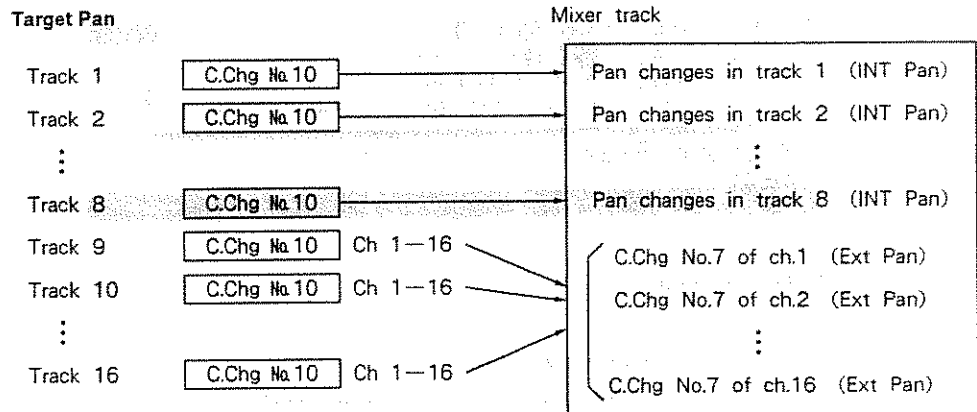
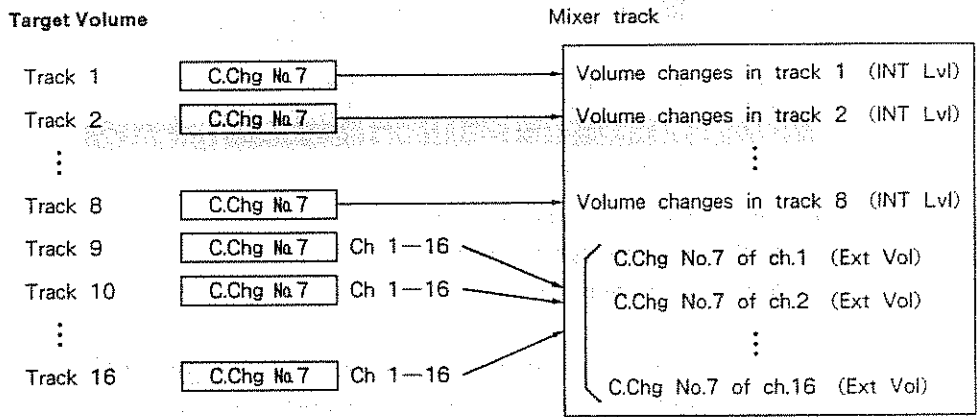
Mixer track



\*If the writing destination track is a pattern-type track, conversion will not be performed, and the data will remain in the mixer track.

[C.Chg → Mix] As shown in the following diagram, Control Change events in each track will be converted into Mixer track data.

☞ Control Change events inside a Pattern will be ignored.



\* Conversion will not be performed for pattern-type tracks.

**Dest Track**

(when Mode is "MIX → C.Chg", specify the writing destination)

[9] - [16]

If Mode has been set to "MIX → C.Chg", specify the track into which the Ext Vol or Ext Pan data will be written.

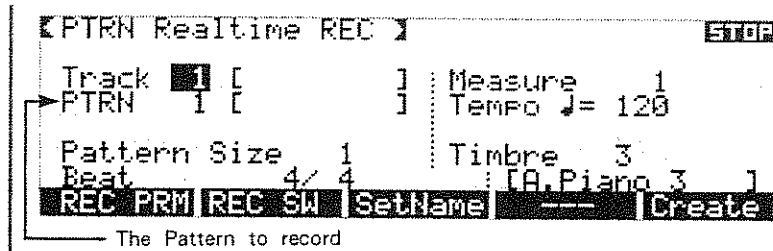
☞ Select a standard-type track. If you select a pattern-type track and attempt to execute, the display will read "Track Type Error".

**F1 Execute**

Execute the Mix Data Conversion operation.

# 10. PATTERN – REALTIME

## [PTRN Realtime REC] .....

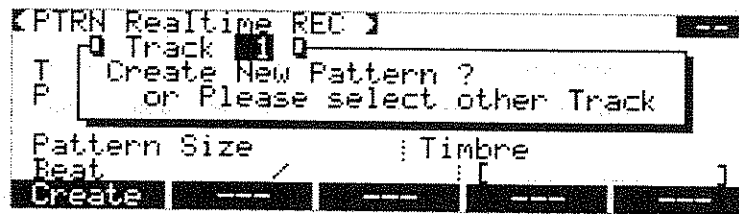


In this display page you can do the following:

- Make basic settings for a Pattern.
- Record a Pattern in realtime.

☐ When you start sequencer playback from this display page, the Pattern you are creating will be heard (P.6-9).

If a track which contains no Patterns is selected, press PATTERN **REALTIME** and a popup window will open asking you to confirm whether you want to create a Pattern.



<b>Track</b>	(Select the track) [1]—[16]
	Select the track in which to create a Pattern. Press <b>F1</b> Create to create a Pattern. The Pattern number will be 1.
<b>Track</b>	(Select the track) [1]—[16]
<b>PTRN</b>	(Select the Pattern)
<b>Pattern Size</b>	(The length of the Pattern) [1]—[999] Specify the length of the Pattern in measures.
<b>Beat</b>	(Time signature for recording)
<b>Measure</b>	(Measure) This displays the current position within the Pattern. A "+" sign indicates that you are in the middle of a Pattern.
<b>♩ =</b>	(Standard tempo) <b>Song</b> [10]—[250] Adjust the standard tempo.

☐ It is only possible to select an existing Pattern. If you wish to create a new Pattern, press **F5** Create.

☐ You can also adjust the standard tempo by holding **TEMPO** and rotating the VALUE dial.



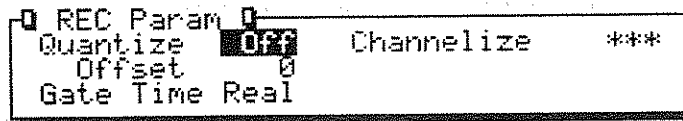
**Timbre**

(The Timbre played by the currently selected track) **Song**  
 [1]—[128], [RHY]

It is not possible to select a Timbre for tracks 9—16.

**F1**  
**REC PRM**

The "REC Param" window will open. ....



Make settings related to Pattern recording.

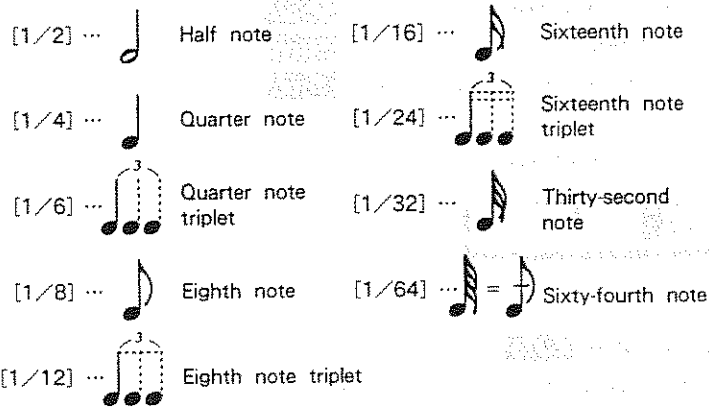
**Quantize**

(Recording quantize)

The Quantize function shifts the note events recorded in realtime to the nearest specified division of the bar. This process produces metrically accurate music. If you record with Quantization, the data will be recorded at precise timing intervals (P.3-36).

Recording quantize function may have no effect if the MV-30 is receiving a large amount of performance data (such as pitch Bend messages, Control Change messages, etc.) at one time.

Select one of the following quantizations.



**Offset**

(Quantization offset)

[ - 100]—[100]

This setting shifts the quantized timing forward or backward in one clock steps (one clock is equal to 1/96th of a quarter note), allowing you to create subtle rhythmic effects (playing ahead of or behind the beat).

If Quantize is Off, this setting will have no effect.

- Negative ( - ) values      play ahead of the beat
- Positive (+) values        play behind the beat

**Gate Time**

(Recording gate time)

[Real]      The time difference between note-on and note-off events recorded from MIDI IN will be stored as the gate time.

[1]—[9999]      Regardless of the time between note-on and note-off events, the note will be recorded with this gate time length, specified in one clock steps (one clock is equal to 1/96th of a quarter note).

For example, if you set this to 96, each note you press will be recorded as a quarter note, regardless of how long you actually held the key.

**Channelize**

(Channelize)

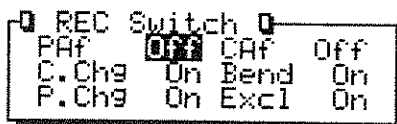
When recording a Pattern for an external sound source track (9—16), all MIDI messages from MIDI IN will be converted and recorded as the channel you specify here.

If this is set to "Off", the messages will be recorded on the channel they were originally received on.

☐ This has no effect on internal sound source tracks (1—8), and will be displayed as "\*\*\*".

**F2 REC SW**

The "REC Switch" window will open.



☐ Note messages will always be recorded.  
 ☐ In the case of internal sound source tracks, Exclusive and Tune Request messages will not be recorded.

When this is set Off, messages of that type will not be recorded. This allows you to prevent unwanted data from being recorded and consuming internal song memory.

- PAf: polyphonic aftertouch **Song**
- C.Cng: control change **Song**
- P.Chg: program change **Song**
- CAf: channel aftertouch **Song**
- Bend: pitch bender **Song**
- Excl: system Exclusive and tune request **Song**

**F3**

**Set Name**

The "Set Name" window will open.



Name(Pattern name) **Song**

You can assign an eight-character name to the Pattern.

**F5**

**Create**

The "Create New Pattern" window will open.



Here you can create a new Pattern.

You can assign an eight-character name to the new Pattern.

**DEL**

The "Pattern Clear" window will open.

```

Pattern Clear
Are you sure?
  
```

This operation will clear all data in the selected Pattern.

**DEL**

If you press **DEL** during recording, the "Realtime Erase" window will open.

```

Realtime Erase
Key Range *** <-> ***
  
```

You can use a MIDI keyboard connected to MIDI IN to delete Note events in realtime.

**Key Range**

While you hold down a key on the keyboard, note events of that key will be erased. If you hold down two keys, all note events between those two keys will be erased.

**REC**

Perform Loop Recording from the beginning of the Pattern. When you reach the end of the Pattern, you will return to the beginning and recording will continue. Newly recorded data will be combined with the previous data.

- ① Press **REC** return to the beginning of the Pattern, and standby for recording
- ② Press **▶/■** begin recording
- ③ Press **▶/■** end recording

# 11. PATTERN – MICROSCOPE

## [PTRN Microscope]

The selected Pattern.

PTRN Microscope		STOP				
PTRN	1	Ch	Note	No.	Vel	Gate
M	1	10	B 1	35	127	1
	2	10	B 1	35	112	1
	3	10	F#2	42	127	1
		10	B 1	35	127	1
		10	F 2	40	127	1

Measure in the Pattern Beat clock (J = 96 clocks)

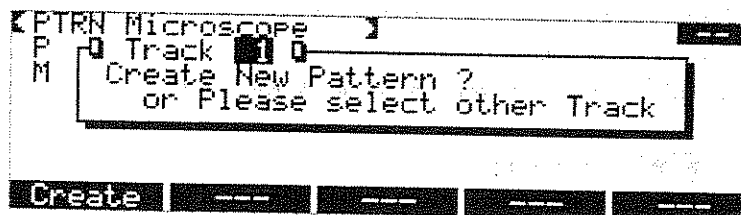
Buttons: Page ↑, Page ↓, Move, View, Step

☐ If you play the sequencer in this page, the selected Pattern will be played (☞ P.6-9).

This mode allows you to view individual data events in the selected pattern. Each line of the screen will display one data event.

Details of each type of event are given in a table in the appendix (☞ P.6-15).

If the selected Track contains no Patterns when you press **PATTERN MICROSCOPE**, a popup window will open asking whether you want to create a Pattern.



**Track**

(Select a Track)

[1]—[16]

Select the track for which you wish to create a Pattern.

Press **F1** Create to create a Pattern. The Pattern number will be 1.

☐ The Mixer track or Tempo track cannot be selected (☞ P.4-54).

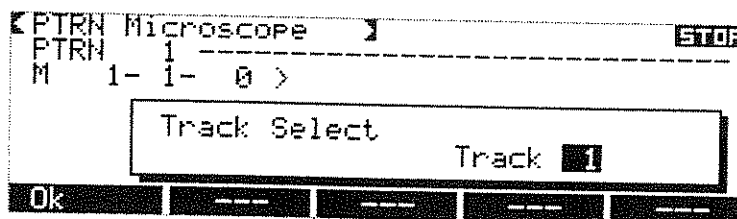
**PTRN**

(Select a Pattern)

**SHIFT + F1**

**Track**

The "Track Select" window will open.



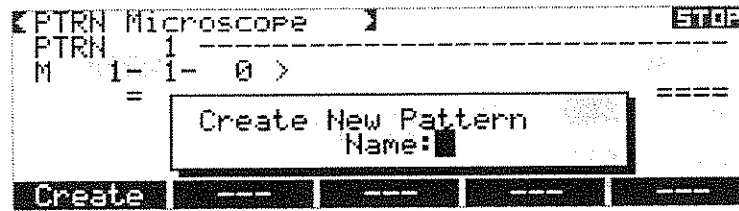
☐ It is only possible to select an existing Pattern. If you wish to create a new Pattern, press **SHIFT + F2** Create.

Here you can select a track. If you select a track which does not contain a Pattern, a popup window will open asking if you wish to create a Pattern.

**SHIFT** + **F2**

Create

The "Create New Pattern" window will open.



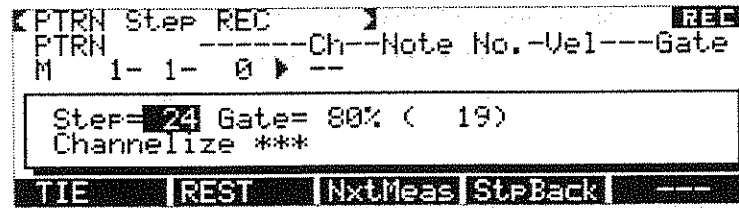
Here you can create a new Pattern. The Pattern number will be 1.

Other than the above, all functions in the Pattern microscope mode are the same as those in the Track microscope mode when a standard-type track is selected. Please refer to TRACK-MICROSCOPE [Microscope] (P.4-54—4-57).

### 【PTRN Step REC】

**F5** Step  
or **REC**

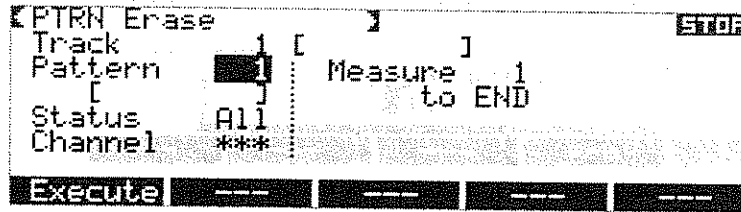
From the [PTRN Microscope] display, press **F5** or **REC** to enter the step recording display.



The functions in this display are the same as when step recording on a standard-type track. Please refer to TRACK-MICROSCOPE [Step Recording] (P.4-58—4-60).

# 12. PATTERN – EDIT

## [PTRN Erase]



This operation allows you to erase events from a Pattern.

### Track

(Select a track) [1]—[16]  
Select the track that contains the Pattern you wish to erase.

### Pattern

(Select a Pattern)  
[All] Events will be erased from all Patterns in the selected track.  
[1] – Events will be erased from this Pattern in the selected track.

### Status

(MIDI status to be erased)  
Select the type of event to be erased.  
[All] All events will be erased.  
[Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU]  
Only the specified type of event will be erased.  
For a detailed explanation of each type of event, refer to P.6-15.

### Channel

(The MIDI channel to be erased)  
If you have selected a Pattern of an external sound source track (9—16), specify the MIDI channel you wish to erase.  
[All] Events of all channels will be erased.  
[1]—[16] Events of the specified channel will be erased.

It is not possible to specify the MIDI channel if you have set the Status to EX/TU.

### Measure to

(The section to be erased)  
Measure Erase events from the beginning of this measure ...  
to ... to the end of this measure. If this is set to "END", Erase will be performed to the end of the Pattern.

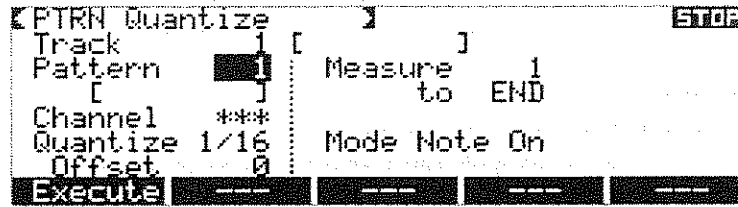
The erase operation will not affect the position of data occurring after the erased section.

### [F1] Execute

Execute the Erase operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be erased. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be erased.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be erased.

# [PTRN Quantize]



The Quantize operation shifts the note event data in a Pattern to the nearest specified timing interval. This automatically corrects inaccuracies in the timing of Key On, Key Off, or Gate Time data.










It is not possible to restore quantized data to its original form.

**Track** (Select the track) [1]—[16]  
Select the track that contains the Pattern you wish to quantize.

**Pattern** (Select the Pattern)  
[All] The events of all Patterns in the selected track will be quantized.  
[1] - The events of only this Pattern in the selected track will be quantized.

**Channel** (The MIDI channel to be quantized) [All], [1]—[16]  
If you have selected a Pattern of an external sound source track (9—16), only the events of the channel you select here will be quantized and written.

**Quantize** (Quantization resolution)  
Specify the resolution to which the data will be quantized (☞ P.3-36).

[1/2] ...  Half note	[1/16] ...  Sixteenth note
[1/4] ...  Quarter note	[1/24] ...  Sixteenth note triplet
[1/6] ...  Quarter note triplet	[1/32] ...  Thirty-second note
[1/8] ...  Eighth note	[1/64] ...  Sixty-fourth note
[1/12] ...  Eighth note triplet	

**Offset** (Quantization offset) [- 100]—[100]  
This setting shifts the quantized timing forward or backward in one clock steps (1/96th of a quarter note), allowing you to create subtle rhythmic effects (playing ahead of or behind the beat).

If Quantize is Off, this setting will have no effect.

Negative (-) values play ahead of the beat.  
Positive (+) values play behind the beat

**Measure to**

(The area to be quantized)

Measure Quantize from the beginning of this measure ...  
to ... to the end of this measure. If this is set to "END",  
quantization will be performed to the end of the Pattern.

**Mode**

(Quantize mode)

This setting determines which data will be quantized (⇨ P.4-69).

- [Note On] the Key On timing (the time at which the note was pressed) will be corrected
- [Note Off] the Key Off timing (the time at which the note was released) will be corrected
- [Gate] the Gate Time (the time between key on and key off) will be corrected

**F1 Execute**

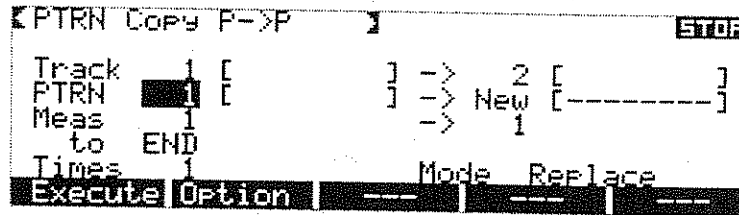
Execute the Quantize operation.

A popup window will open and you can specify the range of notes to be quantized. You may use your MIDI keyboard to specify the notes.

☞ If, as a result of quantization, data is moved past the end of the last measure, it will be written into the first measure.

If, as a result of quantization, data is moved before the beginning of the first measure, it will be written into the last measure.

## 【PTRN Copy P → P】.....



This operation copies events from a Pattern into another Pattern.

**Track**

(Select the copy source track)

[1]—[16]

Select the track that contains the copy source Pattern.

→

(Select the copy destination track)

[1]—[16]

Select the track that contains the copy destination Pattern.

☞ You can select either standard-type or pattern-type tracks as either the copy source or the copy destination.

**Pattern**

(Select the Pattern)

Events will be copied from this Pattern of the copy source track.

→

(Select the copy destination Pattern)

Events will be copied into this Pattern of the copy destination track.

- [New] A new Pattern will be created automatically and copied to the destination.



**Measure to**

(The area to copy)  
 Measure Copy from the beginning of this measure ...  
 to ... to the end of this measure. If this is set to "END", the copy source will extend to the end of the Pattern.

→

(The location of copy destination)  
 The Pattern will be copied to the beginning of the measure you specify here.

**Times**

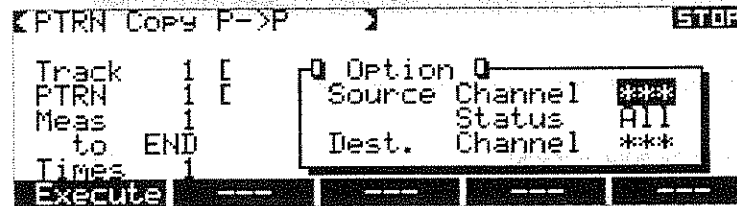
(Number of times to copy) [1]—[100]  
 By specifying a value of 2 or more, you can copy the data two or more times.

**Mode**

(Copy mode)  
 [Replace] The copied data will overwrite the data in the copy destination Pattern.  
 [Merge] The copied data will be combined with the existing data in the copy destination Pattern.

**F2 Option**

You can specify the channel or status of the events to be copied.



**Source Channel**

(Specify the channel to copy) [All], [1]—[16]  
 If the copy source Pattern is from an external sound source track, only the events of the channel you select here will be copied.

**Status**

(Specify the MIDI status to copy)  
 Only the events of the status you select here will be copied.  
 [All] All events will be copied.  
 [Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU]  
 Only the specified type of event will be copied. For a detailed explanation of each type of event, refer to P.6-15.

☐ When you have selected [All], if the copy destination Pattern is in an internal sound source track, data of all channels will be merged and copied.

**Dest. Channel**

(The MIDI channel to be written) [1]—[16]  
 If the copy source Pattern is from an internal sound source track and the copy destination Pattern is in an external sound source track, or if you want to convert channel to be copied into a specific channel, the data will be written as the channel you specify here.

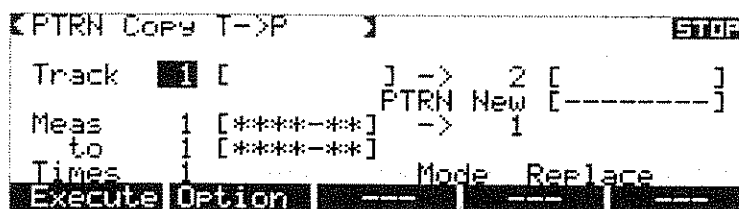
☐ It is not possible to specify the MIDI channel if you have set the Status to EX/TU.

## **F1** Execute

Execute the Copy operation.

- If you have set the Status to [Note] or [PAF], a popup window will open allowing you to specify the range of notes to be copied. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be copied.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be copied.

## **[PTRN Copy T → P]**.....



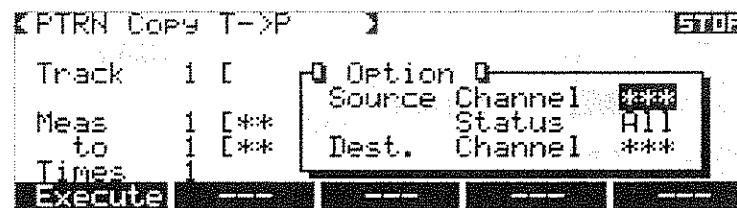
This operation copies data from a standard-type track into a Pattern.

<b>Track</b>	(Select the copy source track) [1]—[16] Select a standard-type track.
→	(Select the copy destination track) [1]—[16] Select the track that contains the copy destination Pattern.
<b>PTRN</b>	(select the copy destination Pattern) The data will be copied into this Pattern of the copy destination track. [New] A new Pattern will be created and copied to the destination.
<b>Measure to</b>	(The section to copy) Measure Copy from the beginning of this measure ... to ... to the end of this measure.
→	(location of copy destination) The Pattern will be copied to the beginning of the measure you specify here.
<b>Times</b>	(Number of times to copy) [1]—[100] By specifying a value of 2 or more, you can copy the data two or more times.
<b>Mode</b>	(Copy mode) [Replace] The copied data will overwrite the data in the copy destination Pattern. [Merge] The copied data will be combined with the data in the copy destination Pattern.

You can select either standard-type or pattern-type tracks.

## F2 Option

You can specify the channel or status of the events to be copied.



### Source Channel

(Specify the channel to copy) [All], [1]—[16]

If the copy source track is an external sound source track, only the events of the channel you specify here will be copied.

When you have selected [All], if the copy destination Pattern is in an internal sound source track, data of all channels will be merged and copied.

### Status

(Specify the MIDI status to copy)

Only the events of the status you select here will be copied.

[All] All events will be copied.

[Note], [PAf], [C.Chg], [P.Chg], [CAf], [Bend], [EX], [TU]

Only the specified type of event will be copied. For a detailed explanation of each type of event, refer to P.6-15.

### Dest. Channel

(The MIDI channel to be written) [1]—[16]

If the copy source track is an internal sound source track and the copy destination Pattern is in an external sound source track, or if you want to convert channel to be copied into a specific channel, the data will be written as the channel you specify here.

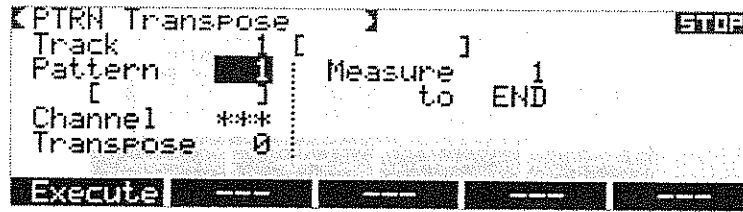
It is not possible to specify the MIDI channel if you have set the Status to EX/TU.

## F1 Execute

Execute the Copy operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be copied. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be copied.
- If you have set the Status to [P.Chg], a popup window will open allowing you to specify the range of program change numbers to be copied.

# [PTRN Transpose]



This function transposes the Note events and Polyphonic Aftertouch events in a Pattern.

**Track** (Select a track) [1]—[16]

**Pattern** (The Pattern to be transposed)

**Channel** (The MIDI channel to transpose) [All], [1]—[16]

If you have specified a Pattern of an external sound source track (9—16), only the events of the channel you select here will be transposed.

- [All] Transpose events of all channels.
- [1]—[16] Transpose events of the specified channel.

**Transpose** (Amount of transposition) [- 99]—[99]

Specify the amount of transposition in chromatic steps.

**Measure to** (The section in which to transpose)

- Measure Transpose from the beginning of this measure ...
- to ... to the end of this measure. If this is set to "END", transposition will extend to the end of the Pattern.

**F1 Execute**

Execute the Transpose operation.

A popup window will open, allowing you to specify the range of notes which will be transposed. You may press a note on your MIDI keyboard to specify note settings.

You can select either standard-type or pattern-type tracks.

If transposition would result in a note number less than 0 (or greater than 127), the note number will be adjusted to 0 (or 127). This means that even if you later transpose again with the opposite transposition settings, the note number will not be restored to its original value.

**[PTRN CHG Velo]**

```

[PTRN CHG Velo]
Track      [ 1 ]
Pattern    [ 1 ]
Channel    [ *** ]
Measure to [ 1 ]
           to END
Change to  [ 0% ]
Bias       [ 0 ]

Execute
  
```

This operation modifies the velocity (refer to Chapter 5 "Glossary") of note events in a Pattern.

**Track** (Select a track) [1]—[16]

You can select either standard-type or pattern-type tracks.

**Pattern** (The Pattern to be modified)

**Channel** (The MIDI channels to be modified) [All], [1]—[16]

If you have selected a Pattern of an external sound source track (9—16), the velocity will be changed only for the note events of the channel you specify here.

[All] The velocity will be converted for note events of all channels.

[1]—[16] The velocity will be converted for note events of the specified channel.

**Measure to** (The measures to be modified)

Measure Modify note velocities from the beginning of this measure ...

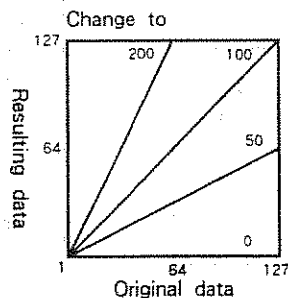
to ... to the end of this measure. When this is set to "END", the section to be modified will extend to the end of the Pattern.

**Change to** (Modification ratio) [0]—[200]%

Specify how the velocity values will be compressed or expanded. For a value of 100, there will be no change.

**Bias** (Modification value) [ - 127 ]—[ 127 ]

After the original velocity has been multiplied by the "Change to" ratio, this "Bias" value will be added to, or subtracted from, the result.



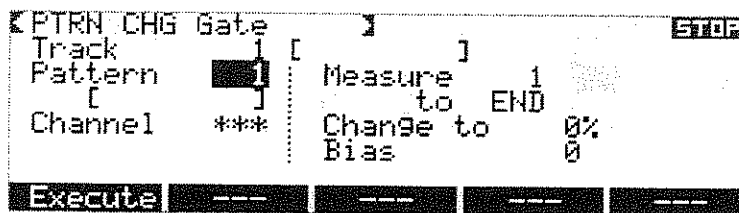
If the Change Velocity operation would result in a velocity less than 1 (or greater than 127), the velocity will be adjusted to 1 (or 127). In such cases, even if you execute the Change Velocity operation once again with the opposite values, the note velocities will not be restored to their original values.

**F1 Execute**

Execute the Change Velocity operation.

A popup window will open, allowing you to specify the range of notes to which the operation will apply. You may press a note on your MIDI keyboard to specify note settings.

# [PTRN CHG Gate]



This operation modifies the Gate Time (refer to Chapter 5 "Glossary") of note events in a Pattern.

**Track** (Select a track) [1]—[16]

**Pattern** (The Pattern to be modified)

**Channel** (The MIDI channels to be modified) [All], [1]—[16]

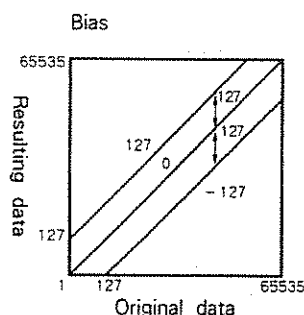
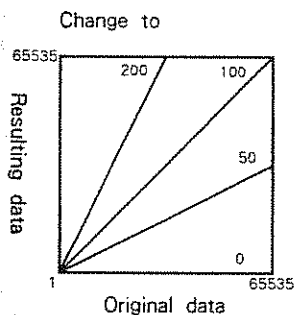
If you have selected a Pattern of an external sound source track (9—16), the gate time will be changed only for the note events of the channel you specify here.

- [All] Gate Time will be modified for note events of all channels.
- [1]—[16] Gate Time will be modified for note events of the specified channel.

**Measure to** (The measures to be modified)  
 Measure Modify gate time from the beginning of this measure ...  
 to ... to the end of this measure. If this is set to "END", the section to be modified will extend to the end of the Pattern.

**Change to** (Modification ratio) [0]—[200]%  
 Specify how the gate time values will be compressed or expanded. For a value of 100, there will be no change.

**Bias** (Modification value) [-127]—[127]  
 After the original gate time has been multiplied by the "Change to" ratio, this "Bias" value will be added to, or subtracted from, the result.



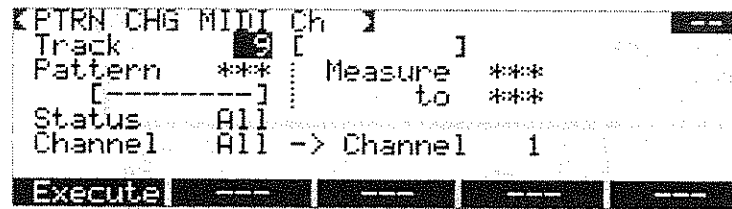
You can select either standard-type or pattern-type tracks.

If the Change Gate Time operation would result in a gate time less than 1 (or greater than 65535), the gate time will be adjusted to 1 (or 65535). In such cases, even if you execute the Change Gate Time operation once again with the opposite values, the gate times will not be restored to their original values.

**F1 Execute**

Execute the Change Gate Time operation.

A popup window will open, allowing you to specify the range of notes to which the operation will apply. You may press a note on your MIDI keyboard to specify note settings.

**[PTRN CHG MIDI Ch]** .....

This operation converts the MIDI channel of events in a Pattern of an external sound source track.

**Track** (Select a track) [9]—[16]

You can select either standard-type or pattern-type tracks.

**Pattern** (The Pattern to be converted)

**Status** (The MIDI status to be affected)

The channel will be converted only for the events of the type you specify here.

[All] The channel will be converted for events of all types.

[Note], [PAf], [C.Chg], [P.Cng], [CAf], [Bend]

The channel will be converted only for events of the specified type.

For details of each type of event, refer to P.6-15.

**Channel** (The MIDI channel to be affected) [All], [1]—[16]

Only the events of the channel you specify here will be affected.

[All] Events of all channels will be converted to the specified channel.

[1]—[16] Events of this channel will be converted to the specified channel.

If this operation converts data to the same MIDI channel as data which already exists in the same Pattern, it will no longer be possible to separate the two sets of data.

**Measure to** (The range to be affected)

Measure Convert events from the beginning of this measure ...

to ... to the end of this measure. If this is set to "END", conversion will be performed to the end of the Pattern.

**→ Channel** (The MIDI channel after conversion) [1]—[16]

**F1 Execute**

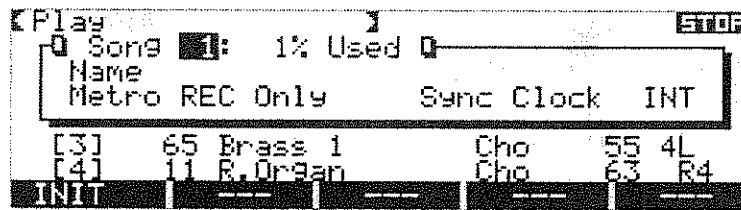
Execute the "Change MIDI Channel" operation.

- If you have set the Status to [Note] or [PAf], a popup window will open allowing you to specify the range of notes to be affected. You may press a note on your MIDI keyboard to specify note settings.
- If you have set the Status to [C.Chg], a popup window will open allowing you to specify the range of control change numbers to be affected.
- If you have set the Status to [P.Cng], a popup window will open allowing you to specify the range of program change numbers to be affected.

# 13. SEQUENCER

## 《SONG SELECT》

The "Song" window will open.



Select a song from internal memory and make song settings.

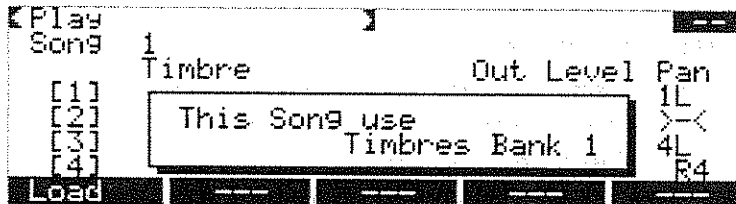
### Song

(Select a song)

[1]—[20]

Select a song from internal memory.

In some cases, a popup window will appear when you select a song.



By rotating the VALUE dial, you can select one of the song numbers which already contain data. If you wish to select a song number to record a new song, use the numeric keys. The numeric keys allow you to select songs whether or not they contain data.

This indicates that the currently-loaded Timbre bank is different than the Timbre bank that was saved with the song (P.4-13). In this case, the song will be played with different Timbres than it was recorded with, so you should load the appropriate Timbre bank.

Press **[F1]** Load, and the Timbre bank that was saved with the song will be loaded. If you press **[EXIT]** to close the window, loading the Timbre bank will be cancelled and then the Timbre bank number which the song has specified will be changed to the Timbre bank number of the internal memory.

### %

(Percent)

This indicates how much internal memory a selected song occupies.

### Name

(Song name) **Song**

You can assign a 28-character name.



**Metro**(How the metronome will sound) **Song**

- [Off] the metronome will not sound
- [REC Only] the metronome will sound only during recording
- [REC&Play] the metronome will sound during recording and playback
- [Always] the metronome will sound continuously

**Sync Clock**(Sync clock) **Song**

Select the synchronization mode.

- [INT] The MV-30 will synchronize to its own internal clock as determined by the Standard Tempo and Tempo Change data.
- [MIDI] The MV-30 will synchronize to MIDI clock messages received at MIDI IN.
- [Tape] The MV-30 will synchronize to tape sync II (FSK) data received at the TAPE SYNC II IN jack.

**F1 INIT**

This operation initializes the song parameters (⇨ P.6-11). The data of all tracks and patterns will be lost.

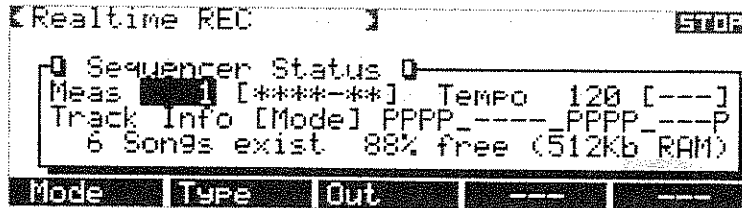
☐ If you wish to hear the metronome from an external speaker, connect the speaker to the METRONOME OUTPUT jack (rear panel). In this case, the metronome will not be heard through the MV-30's internal speaker.

If you wish to hear the metronome through headphones, press **SYSTEM**, and set "Metro → Phone" to "On". In this case, disconnect the external speaker from the METRONOME OUTPUT jack.

In either case, use the level knob on the rear panel to adjust the metronome volume.

## 《STATUS》

The "Sequencer Status" window will open.



Here you can check the condition of songs and tracks.

Meas=

(Measure)

[1]—[9999]

This displays the current measure. If in the middle of the measure, a "+" sign will be displayed.

[ - ]

[Rehearsal mark and measure number]

The four characters to the left show the name of the rehearsal mark. The two characters to the right show the number of measures from that rehearsal mark to the current position.

☐ This is displayed only (P.3-40).

Tempo

(Standard tempo) **Song**

[10]—[250]

If the tempo has been changed by Tempo Change data, the resulting tempo will be displayed in [ ].

☐ You can also adjust the standard tempo by holding **TEMPO** and rotating the VALUE dial.

Track Info

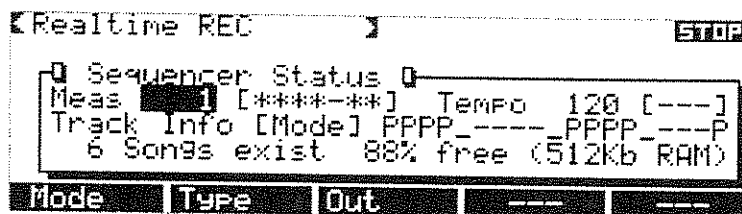
(Track information)

This allows you to check the condition of each track.

The title of the selected data is displayed in [ ]. From left to right, the screen will display data for tracks 1 — 16.

**F1** Mode

Track Info will be set to [Mode], and the status of each track will be displayed as follows.

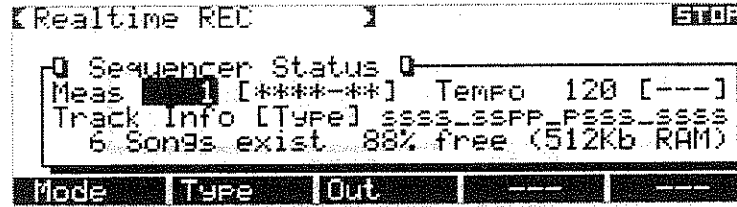


- [P] a track which is playing or can be played
- [M] a track which is muted (only Note messages are muted)
- [R] a track which is recording or in the recording standby mode
- [ - ] a track which contains no data (This is determined by whether or not the track contains events.)

☐ You can also use the track keys to switch [P] and [M] (P.3-9). For external sound source tracks (9—16), hold **SHIFT** and press a track key.

**F2 Type**

Track Info will be set to [Type], and the type of each track will be displayed as follows:

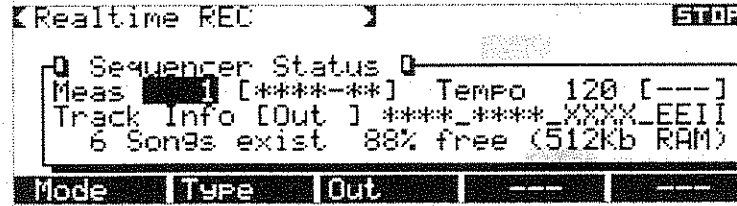


This is only displayed. You may change the type for tracks which contain no data by pressing TRACK [REALTIME], selecting the track you wish to set, and modifying the Track Type (P.4-46).

- [s] a standard-type track, into which musical data (events) can be recorded directly
- [p] a pattern-type track, which contains only Pattern Call events that refer to Patterns

**F3 Out**

Track Info will be set to [Out], and the MIDI output status of each external sound source track will be displayed.



This is only displayed. To modify the settings, press TRACK [REALTIME], select the track, press F3 TRK PRM, and set INT or EXT (P.4-51, P.4-52).

- [I] Only INT is turned on.
   
The data from external sound source tracks will be transmitted to the internal sound sources. To set the receive channels of the internal sound sources, press [PLAY], then press [F5] Page (P.4-3).
- [E] Only EXT is turned on.
   
The data from external sound source tracks will be transmitted from MIDI OUT.
- [X] Both INT and EXT are turned on.
- [ - ] Both INT and EXT are turned off.

**Song Exist**

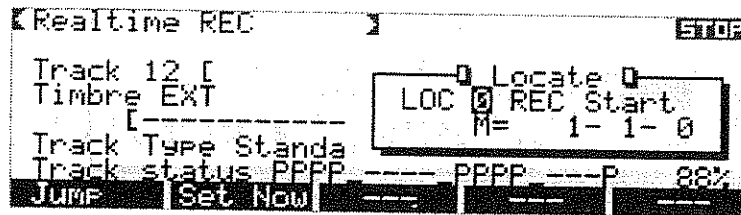
This indicates how many songs are in internal memory.

**% free**

This indicates how much of the internal song memory is still available.

## 《LOCATE》

The "Locate" window will open.



Here you can set Locate Points at desired places in a song.

### LOC

(Select a locate point)

A REC Start point, REC End point, and eight user points are provided.

- [0] (REC Start point) **Song**  
When the REC Mode is Loop<P> or Punch IN, recording will begin here (☞ P.4-48).
- [9] (REC end point) **Song**  
When the REC Mode is Loop<P> or Punch OUT, recording will end here (☞ P.4-48).
- [1]—[8] User points **Song**  
You can set these points to any desired location and jump to them when necessary.

☞ When loop recording, you must allow at least one measure between the REC Start point and the REC End point. If these two points are less than a measure apart, the display will read "Point Error".

M = - -

(Position of the locate point)

Specify the position of the locate point by measure, beat, and clock.

**F2** Set Now

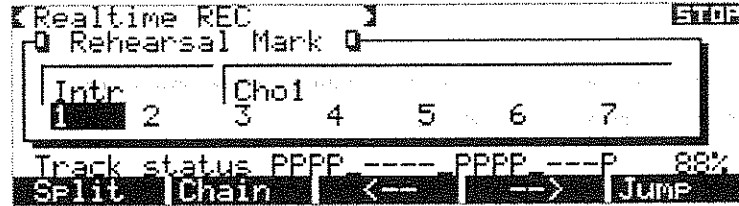
The current position in the song will be set as the new position of the selected locate point.

**F1** Jump

If playback is stopped, jump to the selected locate point.

## 《MARK》

The "Rehearsal Mark" window will open.



For convenience, you can divide songs into sections such as intro, first chorus, interlude, etc., and a "rehearsal mark" is the identifying mark that you attach to each section.

Rehearsal marks are a convenient way to select a location for playback, or to specify areas to be edited.

Select the rehearsal mark on the left side of the screen and enter a four-character name. **Song**

### **F1** Split

Divide the song at the beginning of the measure displayed to the left.

Use the VALUE dial or the numeric keys to display the measure you wish to have at the beginning of the section.

### **F3** ←

To move the dividing point one measure backward, display the rehearsal mark you wish to move and press this key.

### **F4** →

To move the dividing point one measure forward, display the rehearsal mark you wish to move and press this key.

### **F2** Chain

To remove the division and connect the two sections, display the rehearsal mark you wish to connect and press this key.

### **F5** Jump

Jump to the measure displayed on the left side of the display.

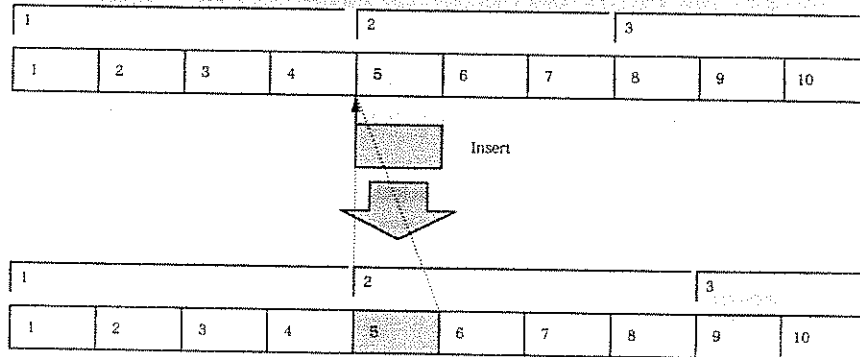
**F3** and **F4** will not function if the previous/next section is one measure.

● Note when using Delete Measure or Insert Measure.

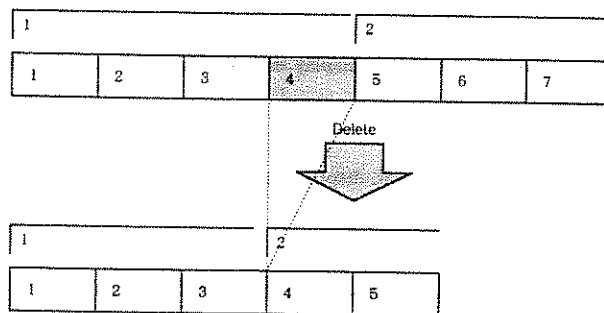
When you perform an Insert Measure or Delete Measure operation on all tracks (⇨ P.4-71, P.4-70), rehearsal marks will also be affected.

If you use the Insert Measure operation to insert measures between two sections, the measures will be inserted into the latter section.

Insert

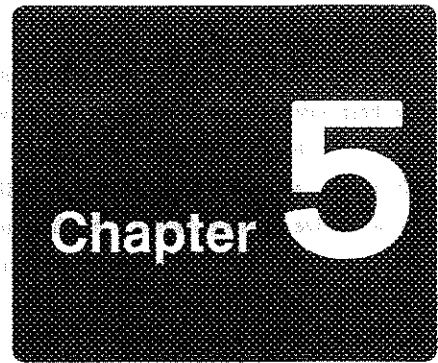


Delete



《TEMPO》

You can adjust the tempo by holding **TEMPO** and rotating the VALUE dial.



# Glossary

# GLOSSARY

---

## ■ Active Sensing

These MIDI messages are used to determine whether the MIDI cable has been disconnected or damaged somehow. If you turn Sens Out (⇨ P.4-44) to "On", these messages will be transmitted from MIDI OUT at regular intervals. Once a MIDI device has received an Active Sensing message, it will expect additional messages at regular intervals. If the messages stop arriving, the device will assume that the cable has been damaged or disconnected, and will turn off all sounding notes.

This prevents problems such as "stuck notes" from occurring.

## ■ Aftertouch

After playing a note, pressing down more firmly on the key will transmit Aftertouch messages. These messages can be recorded in a sequencer, just like any other type of messages.

There are two types of Aftertouch; Channel Aftertouch applies to all notes of an entire MIDI channel, and Polyphonic Aftertouch affects individual notes independently. In the MV-30 display, these are abbreviated as "CAf" and "PAf".

The internal sound source of the MV-30 can receive Channel Aftertouch messages to control the following aspects of the sound.

Use Aftertouch to modify the Pitch (⇨ P.3-50).

Use Aftertouch to modify the tone color (TVF) (⇨ P.3-52).

Use Aftertouch to modify the volume (TVA) (⇨ P.3-53).

Use Aftertouch to modify the LFO depth (⇨ P.4-34).

## ■ Beat

This indicates the time signature. A display of 4/4 indicates that each measure is 4 quarter notes in length, and a display of 6/8 indicates that each measure is 6 eighth notes in length.

It is not possible to modify the time signature of a measure which has already been recorded.

A location of the third beat in the second measure of a song is sometimes referred to as "measure 2, beat 3".

## ■ Bender messages (Pitch Bender)

These MIDI messages transmit continuous changes in pitch. When you move the bender lever (or bender wheel) on a MIDI keyboard, the movement is transmitted as Pitch Bend messages.

The amount of pitch change that will occur when the bender is moved fully away from center is determined by the settings of the device that receives the MIDI messages.

The internal sound source of the MV-30 allows you to specify the pitch change that will occur when the bender lever is moved all the way up and all the way down. These settings are made independently for each Timbre (⇨ P.4-24).

## ■ Card Slot

The MV-30 has two card slots on the rear panel, allowing you to use two PCM cards at once. Page 3-49 gives a list of the cards that can be used.

## ■ Chain Load

(⇨ P.3-11)

This function plays back two or more songs from disk in the order you specify. It is also possible to have a chain of songs automatically loaded when the System is started up (⇨ P.3-13).

The Chain Load function is especially convenient for live performances, since the next song can be automatically loaded and played back as soon as the current song ends. You can also have the chain of songs played back repeatedly to provide background music.

## ■ Channel Aftertouch messages (CAf)

These MIDI messages are transmitted when you press down on a MIDI keyboard key after playing a note. These messages affect all notes of an entire MIDI channel, regardless of which key you press.

## ■ Channelize

When transferring data from an internal sound source track (1—8) to an external sound source track (9—16), you must specify a MIDI channel for the data.

When editing an external sound source track, it is also possible to specify a channel of data to be converted into another channel.

## ■ Chorus

This is an effect that makes one instrument sound like several of the same instruments playing in unison.

The result is an interesting spatial dimension.

To make chorus settings see P.4-3.

To apply chorus to a track see P.4-2.

To apply chorus and reverb to a track see P.4-4.

## ■ Clock

A Clock is a unit of length equal to 1/96th of a quarter note, and is the smallest unit used by the MV-30. For example, an 8th note is equal to 48 clocks, a 16th note is equal to 24 clocks and a quarter note is equal to 96 clocks.



### ■ Compu Mixer

In the **【Compu Mixer】** page, you can use the eight faders to control the parameters listed below. The changes you make can be recorded in the Mixer track as part of the song data.

The following parameters can be controlled by Compu Mix.

- ◇ Control the Volume of each internal sound source track
- ◇ Control the Pan of each internal sound source track
- ◇ Control the Output Select of each internal sound source track
- ◇ Transmit MIDI Volume messages for each channel
- ◇ Transmit MIDI Pan messages for each channel
- ◇ Select an Effect Patch

### ■ Control Change (C.Chg)

This is a type of MIDI message that contains data for various types of musical expression. Some frequently-used control changes are Modulation (no.1), Hold (no.64), Volume (no.7), and Pan (no.10).

### ■ Cutoff Point (CutOff)

(TVF ⇨ P.4-39)

### ■ Disk (floppy disk)

The MV-30 uses 3.5 inch, 2DD micro floppy disks to store the songs and Timbres you create. Floppy disks are fairly durable but avoid subjecting them to shock, high temperature, or magnetic fields. For handling precautions, refer to "Disk Handling" (P.5) in the Quick Start.

By pressing **DISK**, you can access functions for loading and saving data to disk, formatting a disk, etc. (⇨ P.4-10).

### ■ Disk Format

Before a newly purchased disk (or a disk that has been used by another device) can be used in the MV-30, it must be "formatted" as an MV-30 disk (⇨ P.3-71).

If you wish, you can save the System program when formatting a disk, to create a System disk. (A data disk will accommodate approximately 30,000 more notes of song data than a system disk.)

When you execute the formatting operation, all songs or Timbres that were previously on that disk will be erased. It is not possible to recover the original data from a formatted disk.

### ■ Effect Patch

An Effect Patch contains settings for the two effect units (Chorus and Reverb) built into the MV-30. A song can use five different Effect Patches (Effect: 1—5) (⇨ P.3-24).

During song playback, Effect Change events in the Mixer track can select Effect Patches.

Effect Change events can be recorded by the compu mixer or inserted using the Microscope (⇨ P.3-30).

To avoid 'clicks' when an Effect Patch is changed, the effect sound is muted briefly.

### ■ Effect Units (Effector)

Devices that add reverb or modulation to a sound are called "effect units". The MV-30 contains two digital effect units; Reverb and Chorus.

### ■ Envelope (ENV)

The change (in volume, cutoff point, etc.) over the time between the beginning and end of a note is called the "envelope".

The MV-30 provides four parameters that allow you to make adjustments in the volume change (TVA envelope) which is preset for each Tone (⇨ P.4-31).

The MV-30 provides seven parameters that allow you to specify a TVF envelope, to control the tonal change over time (⇨ P.4-28).

### ■ Event

Each piece of musical data recorded in a sequencer is called an "event". In the Microscope page of the MV-30, each line of the screen displays one event.

#### ◇ Events in a Standard-type track or Pattern

- Note (Note)
- Control Change (C.Chg)
- Program Change (P.Chg)
- Channel Aftertouch (CAf)
- Pitch Bender (Bend)
- Polyphonic Aftertouch (PAf)
- Exclusive (EX)
- Tune Request (TU)

#### ◇ Events in a Tempo track (Unique to the MV-30)

- Tempo Change (Tempo)

#### ◇ Events in a Pattern-type track

- Pattern Call (PTRN) (Unique to the MV-30)

#### ◇ Events in a Mixer track (Unique to the MV-30)

- Internal Level (INT Lvl)
- Internal Pan (INT Pan)
- Internal Output Assign (INT Out)
- External Volume (EXT Vol)
- External Pan (EXT Pan)
- Effect Change (Effect)

### ■ Exclusive Message (EX)

These messages are unique to a specific model of MIDI device, and carry data for sounds, etc. Since the sequencer can record these messages, you can take advantage of this capability to use the sequencer to store sound data for another MIDI device.

## ■ External sound source tracks (tracks 9—16)

These tracks allow you to play a MIDI sound source connected to MIDI OUT. Each external sound source track can contain data for MIDI channels 1—16, meaning that a single track can play up to 16 independent instrumental parts. The data from each external sound source track can also be sent to the internal sound source (⇨ P.3-56). As with internal sound source tracks, you may set external sound source tracks to be either Standard-type or Pattern-type tracks (⇨ P.2-3).

## ■ Fader

When you press **MANUAL**, or when you press **COMPU** in the **[Compu Mixer]** page (to turn off the track key LEDs), the faders will perform the following functions.

### ◇ **[Compu Mixer]** page

The faders can perform one of the following functions.

Control the level for each of the internal sound source tracks

Control the pan for each of the internal sound source tracks

Control the output for each of the internal sound source tracks

Transmit MIDI Volume for each channel

Transmit MIDI Pan for each channel

These fader movements can be recorded as part of the song data (⇨ P.3-25, P.4-20).

### ◇ Pages other than **[Compu Mixer]**

By pressing **MANUAL**, the faders can be used to control the output levels (volume) of the internal sound source tracks.

## ■ Foot Switch (FOOT SW)

By connecting a foot switch (pedal) such as the DP-2 (sold separately) to the rear panel FOOT SW jack, you can use the foot switch to start/stop playback or recording, or punch in/out (⇨ P.4-44).

## ■ Gate Time

This is part of a Note event, and represents the length of time from when the note is pressed to when it is released. This value is expressed in Clocks. You can edit the Gate Time of a note after it has been recorded.

## ■ Hold message (Hold)

These MIDI messages (Control Change no.64) are transmitted when you press the hold pedal (the damper pedal of a piano) on a MIDI keyboard. When the internal sound source of the MV-30 receives this message, it will sustain the currently sounding notes.

## ■ Initialize

The Song Initialize and Timbre Initialize operations reset all Song or Timbre parameters to a set of basic values that will be convenient when you wish to create a Song or Timbre from scratch. The Song Initialize operation deletes all event data.

Song Initialize (⇨ P.4-101)

Timbre Initialize (⇨ P.4-35)

## ■ Internal sound source tracks (tracks 1—8)

These tracks are used to play internal sound sources (Timbres).

These tracks cannot play more than one Timbre at once, but you may change Timbres during the song (⇨ P.3-29).

You can use these as Standard-type or as Pattern-type tracks.

Data from internal sound source tracks will not be transmitted as MIDI messages.

Since each internal sound source track is directly connected to its own internal sound source Part, there is no need to specify the MIDI channel when recording.

## ■ Key On Recording

In this method of recording, the MV-30 will be in playback mode when you begin (the original data will not be erased). When the first MIDI message is received, recording will begin, and the original data which follows will be erased (and replaced by the new data). (⇨ P.4-47).

## ■ LFO (Low Frequency Oscillator)

The LFO is an oscillator that produces a slowly varying control signal. The speed of the MV-30's LFO can be adjusted over a range from 0.05 Hz (1 cycle in 20 seconds) to 20 Hz (20 cycles in 1 second).

The LFO can be applied to pitch, tone (TVF), or volume (TVA), to produce vibrato, growl (wah-wah), or tremolo.

LFO settings (⇨ P.4-32)

Use the LFO to create vibrato (⇨ P.3-50)

Use the LFO to create growl (⇨ P.3-52)

Use the LFO to create tremolo (⇨ P.3-53)

## ■ Load

Various "Load" operations allow you to load song data, Timbre parameters, or Chain Load settings from disk into the MV-30's internal memory. It is also possible to load song data from the MRC series or W-30, or from a Standard MIDI File.

## ■ Locate Point

(⇨ P.4-104)

You can specify up to 8 "User Locate Points", and jump (move) to any desired point. The REC Start point and REC End point are used for the Auto Punch In/Out function (⇨ P.3-28) and the Loop Recording function (⇨ P.4-48).

### ■ Location in a song

Location (position) in a song is expressed as measure/beat/clock. A "clock" is 1/96th of a quarter note, and the beginning of a beat is clock '0'. A clock is the shortest unit of time used by the MV-30. For example, a location of 4 - 2 - 48 (with a time signature of 4/4) would indicate the second half of the second beat of measure 4. If the denominator of the time signature is an eighth note, the clock after 47 will be clock 0 of the next beat.

### ■ Loop Recording

This function allows you to specify a section of a song that will play over and over. As the looped section plays, you can record new data that will be added to the existing data. This is convenient when recording rhythm parts to be played by the Rhythm Timbre, since it allows you to play each instrumental part separately (☞ P.3-16).

### ■ MIDI

This is the abbreviation for "Musical Instrument Digital Interface"; a world-wide standard for exchanging musical data. Regardless of the manufacturer or model, any MIDI-compatible device will be able to communicate with any other MIDI device. The various types of data transmitted and received by MIDI devices are called MIDI messages.

### ■ MIDI Sync

By connecting two or more MIDI sequencers or rhythm machines (and making the appropriate settings), one or more "slave" devices can be synchronized to a "master" device. This is known as MIDI Sync.

Most MIDI sequencers and rhythm machines are able to receive and transmit MIDI sync messages.

To use the MV-30 as a master, set the **【System Config】** page parameter MIDI Sync Out to "On" (☞ P.3-57).

To use the MV-30 as a slave, press **SONG SELECT** and set Sync Clock to "MIDI" (☞ P.3-58).

MIDI sync uses the following messages.

#### ◇ Clock:

This message is transmitted at intervals of 1/24th of a quarter note, to establish the tempo.

#### ◇ Song Select:

This message indicates which song was selected.

#### ◇ Song Position Pointer:

This message indicates the position within a song, in units of 16th notes from the beginning of the song.

#### ◇ Continue:

This message begins playback.

#### ◇ Stop:

This message stops playback.

#### ◇ Start:

This message begins playback from the beginning of the song.

### ■ MIDI channel

MIDI uses sixteen channels; 1—16. Messages will be received only if the receiving channel matches the transmitting channel. This allows up to 16 instruments to be controlled independently through a single MIDI cable.

### ■ Master Tune

The Master Tune value in the **【System Config】** page determines the tuning of the entire MV-30 internal sound source. Normally you will leave this set to (A=) 440.0 Hz. To tune individual sounds, refer to P.3-50.

### ■ Measure

This refers to measures or measure numbers.

### ■ Metronome

(☞ P.3-41)

By pressing **SONG SELECT**, you can specify how the metronome will be sound.

Also, by setting the **【System Config】** page Metro→Phone to "On", the internal metronome speaker will be turned off, and the metronome will be heard through the headphones.

However, if a cable is connected to the metronome output jack, the metronome will be output only through this jack.

In all cases, the metronome volume can be controlled by the level knob on the rear panel.

### ■ Microscope

The Microscope page of the MV-30 allows you to view and edit individual events of recorded data. Each line of the Microscope screen displays one event.

### ■ Mixer Track (track M)

This track contains data recorded by the Compu Mixer ( **【Compu Mixer】** page). When **COMPU** is pressed, the mix will be controlled by the data in the mixer track.

The mixer track can contain the following data.

INT Lvl	The level of each internal sound source track
INT Pan	The pan of each internal sound source track
INT Out	The output of each internal sound source track
EXT Vol	Volume messages to transmit from MIDI OUT for each channel
EXT Pan	Pan messages to transmit from MIDI OUT for each channel
Effect	Effect Patch changes

### ■ Modulation message (Modulation)

These MIDI messages (Control Change no.1) are transmitted by a MIDI keyboard when you move the modulation lever or modulation wheel. The internal sound source of the MV-30 can respond to these messages and vary the LFO depth (☞ P.4-33).

---

## ■ Mute

You can use the track keys to mute tracks (stop them from playing back notes) (⇨ P.6-8). In **【Play】** or **【Realtime REC】** pages, etc., the track key indicators will light green during playback, and will be dark when muted.

Even when a track is muted, it will still transmit non-note data.

## ■ Output Assign (audio signal output)

The Output Assign settings determine how the audio signal is sent from each internal sound source track (1—8). These settings specify which of the three pairs of stereo outputs on the rear panel will be used, and whether or not the sound will be processed through the on-board effects (⇨ P.4-2).

These settings can be changed during song playback (⇨ P.3-31).

## ■ PCM Card

These cards contain the sounds of instruments or synthesizer waveforms that have been digitally sampled using Roland's PCM (pulse code modulation) technology. Optional PCM cards can be inserted into the MV-30's card slots to expand the range of available instruments. Page 3-49 has a list of the cards which can be used.

## ■ Pan

When using stereo output, the pan parameter determines the stereo position of the sound. Pan can be set independently for each track, over a range of fifteen steps. By selecting "RND" (random), you can make the stereo position change randomly for each note (⇨ P.4-2).

By using the compu-mixer, pan can be set for internal sound source tracks, and you can also transmit MIDI pan messages (Control Change no.10) to control external MIDI sound sources (⇨ P.3-26).

For the Rhythm Timbre, pan can be adjusted independently for each key (each rhythm instrument) (⇨ P.4-42).

The pan data of each track is part of the song data, and the pan data of the Rhythm Timbre is part of the Timbre parameters.

## ■ Parameter

A "parameter" is a setting which you can make to affect the operation or status of some function or aspect of sound. For example, the reverb effect unit has a "Type" parameter that determines the type of reverberation.

## ■ Pattern

Patterns are a specified number of measures long, and can be called from a Pattern-type track by a Pattern Call event. By creating Patterns (for frequently-used motifs or rhythms of the song), and calling these Patterns from the appropriate location of a track whenever necessary, you can speed up the process of song creation and also save memory (⇨ P.3-46).

Patterns can also be called and played using the RPS (Realtime Phrase Sequence) function.

Patterns can be created in Standard-type tracks, but cannot be called by Pattern call events.

## ■ Pattern Conversion

This operation converts the Pattern Call events and the Pattern data in a Pattern-type track into a Standard-type track (⇨ P.4-79). (After conversion the Patterns will remain intact.)

Once a Pattern-type track has been converted into a Standard-type track, it cannot be restored to a Pattern-type track. Also, a track that has been converted into a Standard-type track will consume more memory.

## ■ Pattern-type tracks

These tracks allow you to use Pattern Call events to call and playback Patterns that were previously created in that track.

It is not possible to record normal musical data in a Pattern-type track.

If you create a Pattern in an empty track, the track type will automatically be set to Pattern.

If a track already contains musical data, you will have to erase all the data before that track can become a Pattern-type track. (It is not possible to mix musical data and Pattern Call events in the same track.)

The Pattern Conversion operation can be used to convert a Pattern-type track into a Standard-type track.

(Standard-type tracks, ⇨ P.5-8)

## ■ Polyphonic Aftertouch message (PAf)

These MIDI messages are transmitted when you press down on a MIDI keyboard key after playing a note. These messages are transmitted independently for each key and allow you to affect the sound of specific notes even in the same MIDI channel.

## ■ Program Change messages (P.Chg)

These MIDI messages select sounds by specifying a program number of 1—128. In the MV-30, program change numbers correspond to Timbre numbers. By recording program change events in the track, you can select Timbres during a song (⇨ P.3-29).

## ■ Punch IN/OUT Recording

This method of recording allows you to playback the previously recorded data and re-record only a specified section. Changing from playback to the record mode is known as "punching in", and changing from record to the playback mode is known as "punching out".

To punch in/out, you can press the **REC** key, or use a foot switch connected to the FOOT SW jack (☞ P.3-28).

You can also specify a REC Start point and REC End point to perform automatic punch in/out operations (☞ P.3-28).

## ■ Quantize

This function corrects the timing irregularities that usually occur when recording in realtime. This will make the performance metrically accurate but will also eliminate the unique rhythmic feel created by the player. Therefore, quantization should only be used when it is musically appropriate.

You can either quantize the incoming data as you record or quantize the data later as an editing operation (☞ P.3-36). Quantization can be applied not only to Key on timing, but also to Key off, and gate time as well.

### ◇ Quantize Key-off

This corrects the timing of note-off messages (the Gate Time will change). By quantizing the timing of note-off messages, you can emphasize the beat (☞ P.4-69, 92).

### ◇ Quantize Gate Time

This corrects the gate time (the note-off location will change). For example, if you quantize gate times to an 8th note, note lengths will be adjusted to eighth notes, quarter notes, half notes, whole notes, etc. (☞ P.4-69, 92).

## ■ Quantize Offset

When using the quantize function, you can specify a timing offset in clocks by which the newly corrected position will be moved forward or backward. The Key-on quantize function allows you to create the rhythmic feels of playing "ahead of" or "behind" the beat. It can also be used to shift sounds with a slow attack slightly ahead of the other sounds.

## ■ RPS (Realtime Phrase Sequence) (☞ P.3-46)

This function triggers specified Patterns in response to Note messages received at MIDI IN. You can assign a different Pattern to be triggered by each of 20 keys. The RPS function can be used in the **[Play]**, **[Realtime Phrase SEQ]**, **[Chain Load]**, or **[Compu Mixer]** pages.

## ■ Realtime Phrase Sequence (☞ RPS)

## ■ Realtime Recording

This method of recording allows you to record a performance from a MIDI instrument just as you play it.

## ■ Recording

Realtime recording ☞ the above item.

Step recording ☞ P.5-8

## ■ Recording switch

When recording in realtime, this setting allows you to restrict the types of MIDI messages which will be recorded. By limiting the types of MIDI messages, you can save memory (☞ P.3-32).

## ■ Rehearsal Mark

Rehearsal Marks allow you to divided a song into sections (such as intro, first chorus, interlude, etc.), and assign a name of up to 4 characters to each section.

Rehearsal Marks can be used to specify sections for practise or song editing (☞ P.3-40).

## ■ Resonance (☞ P.4-27, 40)

This parameter emphasizes the region around the cutoff frequency to create a strongly characteristic tone. Higher values will result in increasing emphasis.

## ■ Reverb

Reverberation and delay are effects that create a feeling of spaciousness.

Reverb settings ☞ P.4-4

Apply reverb to a track ☞ P.4-2

Apply reverb and chorus to a track ☞ P.4-4

## ■ Rhythm Timbre

The Rhythm Timbre assigns a different sound to each note of the keyboard. You can freely specify which Tone is played by each note.

## ■ Save

The "Save" operation allows you to save Song data, Timbre parameters, System Configuration data, Chain Load settings, etc. from internal memory to a disk.

## ■ Sequencer

In electronic music, a "sequencer" is an "automatic playback device". Unlike a tape recorder, which records the sound produced by an instrument, a sequencer digitally records performance data such as "which key was pressed how strongly and held how long". Music production with a sequencer allows you to hear the results as you proceed, unlike when using pencil and paper to compose. It also allows you to modify the pitch, rhythm, and song structure in complex ways, so as to create music that might not be otherwise possible. The MV-30 contains an on-board sequencer that has been designed to control both its internal sound source and also external MIDI sound sources.

## ■ Soft THRU

(☞ P.4-44)

When this function is used, the messages arriving at MIDI IN are immediately re-transmitted from MIDI OUT. This is convenient when both a MIDI keyboard and MIDI sound source are connected to the MV-30.

## ■ Song

A Song consists of the sequence data (events) in each track and Pattern, and data included with the song, such as Song Name, etc. (Song Parameters).

A list of the Song Parameters is given on P.6-11.

## ■ Song capacity

A song can contain up to approx. 50,000 notes. The internal memory of the MV-30 can hold up to 20 songs, but the total number of notes in these songs cannot exceed approx. 50,000 (☞ P.2-8).

A disk which has been formatted with the System will accommodate approx. 70,000 notes. A disk which has been formatted without the System will accommodate approx. 100,000 notes. In either case, a disk can contain up to 64 songs.

## ■ Song length

The length of each song will be different. The last measure of the song will be the last recorded measure of the longest track, or the last measure which contains data. It is not possible to playback beyond the last measure, or to view beyond this point using the Microscope.

If you record or insert data beyond this point, or if an editing operation creates or moves data beyond this point, new measures will be created with the time signature you specified in New Measure Beat (☞ P.4-51).

## ■ Song Name

When you save a song to disk, you must assign a Song Name. Songs on disk are distinguished by their name. (It is not possible for two songs on a single disk to have the same name.) Songs on the disk will be displayed in alphabetical order.

## ■ Standard MIDI Files

Most MIDI sequencers on the market today use their own file format which cannot be read by other sequencers. This makes data transfer impossible. To solve this problem, the industry has agreed upon a "Standard MIDI File" format which will allow various sequencers to share data. Many sequencers being sold today are able to read and write data in this format, and the MV-30 is one of those units (☞ P.3-69).

In order to exchange data with other devices, the tracks into which the MV-30 saves a standard MIDI file are different than the tracks into which it loads a standard MIDI file. This means that if you save song data as a standard MIDI file and then load that file back into the MV-30, the track assignments will not be the same (☞ P.4-16, 17).

## ■ Standard-type tracks

These tracks record musical data directly. If you use realtime or step recording to record data into an empty track, it will automatically become a Standard-type track.

It is possible to create Patterns in a Standard-type track, but it is not possible to use Pattern Call events to call these Patterns. You can, however, use the RPS function to call Patterns from a Standard-type track. (Pattern-type tracks, ☞ P.5-7)

## ■ Step Recording

This method of recording allows you to enter events one by one.

## ■ Step Time

When step recording, the 'step time' is the length of time until the next note event is to occur. This value is expressed in Clocks. For the notes of a chord (notes sounding simultaneously), the step time will be 0.

## ■ Sync Clock

This parameter determines what will control the tempo of the MV-30 (☞ P.4-101). If you wish to use the MV-30's standard tempo (and the tempo change data in the Tempo track) to control sequencer playback, set this parameter to "INT". If you wish to synchronize the MV-30 to another MIDI device, set this to "MIDI". If you wish to synchronize to tape, set this to "Tape".

## ■ Synchronized playback (Sync)

Synchronized playback refers to two or more devices that start and stop (simultaneously) at the same locations in a song. The MV-30 can use two types of synchronization; MIDI Sync (☞ P.3-57) and Tape Sync II (☞ P.3-60).

### ■ System Configuration Parameters

The parameter settings in the **【 System Config 】** page, which determine the overall operation of the MV-30, can be stored on a disk which contains the System. (Only one set of parameters per disk.) (⇨ P.3-72) The next time this disk is used to start up the System, your settings will automatically be reloaded.

### ■ Tape Sync II

The MV-30 has a built-in "tape synchronizer" that allows it to be synchronized to cassette tape or video tape. This allows you to record acoustic instruments or vocals on an MTR, and playback in synchronization with the backing tracks provided by the MV-30. The "Tape Sync II" in the MV-30 is a method of tape synchronization recently developed by Roland, and contains data indicating the song location. This means that you can synchronize even when the tape is played back from the middle of the song.

### ■ Tempo

The basic tempo for a song is called the "standard tempo". You can adjust the standard tempo at any time by pressing **TEMPO** and rotating the VALUE dial. If the Sync clock (⇨ P.4-101) of that song has been set to INT (internal), the song will playback at this standard tempo. The standard tempo can be adjusted over a range of 10—250 beats per minute.

You may insert Tempo Change events (⇨ P.3-32) into the Tempo track to specify how the standard tempo will change over the course of a song. The actual tempo which results will be displayed in brackets [ ] in the **【 Realtime REC 】** page or the **【 Compu Mixer 】** page.

### ■ Tempo Change events (Track T)

This data specifies how the Standard Tempo will be adjusted. Tempo Change events can be entered one by one using the Microscope or by Step Recording. These events are entered as tempo values, but are actually stored as a ratio of the standard tempo.

### ■ Tempo Track (Track T)

This track stores any Tempo Change events (⇨ the above item).

### ■ Timbre

(Timbre editing ⇨ P.3-48)

Each sound played by internal sound source tracks, or by note messages from MIDI IN, is called a "Timbre". A Timbre consists of a "Tone", and various "Timbre parameters". The internal memory of the MV-30 contains 128 Timbres and one Rhythm Timbre (see Rhythm Timbre P.3-48). You can freely edit each Timbre. Remember to save your edited Timbres to disk. They will be lost if you turn the power off before you save them.

### ■ Timbre Bank (Bank)

Each disk can contain eight sets of internal Timbre data (128 Timbres and one Rhythm Timbre). Each of these sets is called a "Bank".

### ■ Tone

A Tone is the "core" of a Timbre.

Each Tone contains the sound of an instrument or synthesizer waveform (pulse code modulation using Roland's PCM technology), various data that specifies how the volume will change over time, and a specified Tone Type. It is not possible to edit the data of a Tone.

Internal memory contains 220 Tones, and you can select and use any of these. The 220 Tones are organized in three groups. In addition to these, you can also use Tones from PCM cards sold for the MV-30, the U-series, or the D-70.

INT 1	internal memory (108)	instrumental sounds
INT 2	internal memory (84)	synthesizer waveforms
INT 3	internal memory (28)	rhythm sounds
U-01 —	PCM cards for the U-series	SN-U110-01 —
U-30	PCM card for the MV-30	SN-MV30-02
U-31	PCM card for the MV-30	SN-MV30-01
D-01 — 32	PCM cards for the D-70	SN-SPLA-01 — 32

The highest pitch that can be played will be different for each Tone.

### ■ Tone Type

This refers to the type of PCM sound (sampled waveform) contained in a Tone. It is not possible to change the Tone Type of a Tone. (However, only in the case of SN-SPLA series cards for the D-70, tones can also be used as detune tones.)

Single	a single PCM sound will be played
Detune	two identical PCM sounds (slightly detuned) will be played
Dual	two different PCM sounds will be played
V-Mix	depending on how strongly the note was played, two different PCM sounds will be mixed in different proportions
V-SW	depending on how strongly the note was played, one of two different PCM sounds will be played

Since Detune, Dual, or V-Mix tones actually play two PCM sounds for each note, the number of maximum polyphony will be halved for these types.

### ■ Track

Most sequencers organize the musical parts of a song in "Tracks". The MV-30 provides a total of 18 tracks (four types; internal sound source tracks, external sound source tracks, tempo track, and mixer track).

### ■ Track Type

Tracks 1—16 can be used either as Standard-type (⇨ P.5-8) or as Pattern-type (⇨ P.5-6) tracks. Unrecorded tracks can be set to Standard or Pattern type in the [Realtime REC] page.

If you create a Pattern in a track, the track will automatically become a Pattern-type track. However, if no Pattern Call events have yet been inserted, you may change it to a Standard-type track.

### ■ Transpose

This editing operation allows you to transpose a song (move all notes up or down in pitch). Note numbers of note events in the specified section will be moved up or down by the number of chromatic steps you specify. You can transpose an entire song, or just specified sections of an individual track.

You can also limit the transpose operation to affect only a single note, and convert all occurrences of a specific note into another note. This is convenient when editing rhythm data for a sound generator with a different key layout.

### ■ Tuning

Master Tune (⇨ P.4-44).

You can adjust the pitch of each sound (⇨ P.3-50)

### ■ TVA (Time Variant Amplifier)

TVA settings determine how the volume of a sound will change over the time from when a key is pressed to when it is released. Each of the Tones in the MV-30 has preset TVA settings which cannot be viewed or edited, but you may make adjustments to these preset settings (⇨ P.4-31, 41).

### ■ TVF (Time Variant Filter) (⇨ P.4-25)

TVF settings determine how the tone color of a sound will change over the time from when a key is pressed to when it is released. The filter can be used to remove specified ranges of overtones to modify the sound. The frequency at which the filter begins to take effect is called the "cutoff point". The filters of the MV-30 can be used in three modes; low pass, high pass, and band pass.

The filter has its own envelope, allowing you to make settings that determine how the cutoff point changes over time. It is also possible to control the cutoff point in realtime.

The filters of the Rhythm Timbre do not have envelopes (⇨ P.4-39).

### ■ Value

A "value" is the setting or number to which a parameter has been set. For example, the value of the LFO Rate parameter can be adjusted over a range of 0—63.

### ■ VALUE Dial

This is the rotary dial on the top panel of the MV-30 that is used for specifying parameter values.

### ■ Velocity

The force (actually the "speed") with which you play a key is called the "velocity". Velocity data is part of the Note message transmitted when you play a note.

The internal sound source of the MV-30 can respond to velocity values in the following ways.

Velocity can affect the brightness of the sound (TVF) (⇨ P.3-52).

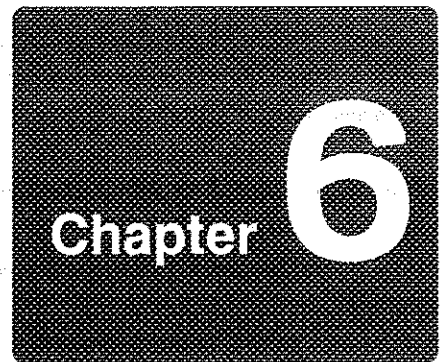
Velocity can affect the volume of the sound (TVA) (⇨ P.3-53).

### ■ Voice Reserve

The internal sound source of the MV-30 is able to produce up to 30 notes simultaneously. If more than 30 notes are requested at any one time, the most recently played notes will take priority (i.e. last-note priority is used). The Voice Reserve setting allows you to reserve a minimum number of notes for each part. This guarantees that musically important parts (melody or bass) do not have notes inadvertently cut off (⇨ P.3-41).

Since some Tones use two notes for each sound, you may actually have less than 30 notes available.





# Appendix

- 1. Troubleshooting ... 6-2
- 2. Messages ... 6-4
- 3. Error messages ... 6-5
- 4. Mode chart ... 6-7
- 5. Functions that change operation by mode ... 6-8
- 6. Parameter list ... 6-10
  - System configuration parameters ... 6-10
  - Chain load settings ... 6-10
    - Disk label ... 6-10
    - Song parameters ... 6-11
    - Timbre parameters ... 6-13
- 7. List of events ... 6-15
- 8. List of clock values ... 6-17
- 9. How to read printed music ... 6-18
- 10. Internal tone list ... 6-19
- 11. Contents of the included disk ... 6-21
  - Demo songs ... 6-21
  - List of RPS Demo song ... 6-22
  - Profiles of the demo song composers ... 6-23
  - List of Timbre banks ... 6-24
  - Chain load setting ... 6-24
  - List of Timbres ... 6-25
- Roland Exclusive Messages ... 6-32
- MIDI Implementation ... 6-36
- MIDI Implementation chart ... 6-39
- Specifications ... 6-41

# 1. TROUBLESHOOTING

## No sound

Are the output jacks (MIX OUT, DIRECT OUT 1, 2) connected correctly?

Check the output assign of the internal sound source tracks (⇨ P.4-2).

- Are the volumes lowered on your amp, mixer, or external MIDI equipment?
- Is the master volume of the MV-30 lowered?
- Are the eight faders lowered?
- Is the MIX MODE set to COMPU even though no volume changes have been recorded in the Mixer track?
- Are the track outputs muted (⇨ P.4-51)?
- Are the Timbre levels lowered?
- Is the levels of each key in the Rhythm Timbre lowered?
- Is the source key of each key in the Rhythm Timbre turned off? (⇨ P.4-37)
- Are you playing outside of the pitch range that a Tone can produce?
- Do the MIDI channels of the MV-30 match the MIDI channels of the external MIDI devices? In the various pages of **PLAY**, **CHAIN LOAD**, **DISK**, **COMPU MIX**, **SYSTEM**, **TRACK EDIT**, and **PATTERN EDIT**, there will be no sound if the channels of the internal sound sources do not match the channels of the external MIDI devices (⇨ P.6-9).

## Cannot playback a song

- Is the song parameter Sync Clock set to MIDI or Tape? In this case, playback will not start unless a sync signal is received from an external device (⇨ P.4-101).
- Are you at the end of the song data?

## Cannot record

- Is the song parameter Sync Clock set to MIDI or Tape? In this case, recording will not start unless a sync signal is received from an external device (⇨ P.4-101).

## Pitch is incorrect

- Is the master tuning incorrect? (⇨ P.4-44)
- Are the Pitch Coarse, Pitch Fine, Detune Depth settings for the Timbres correct? (⇨ P.4-24)
- Check the Source Key, Pitch Coarse, Pitch Fine, Detune Depth, and Pitch Randomize settings for each key of the Rhythm Timbre. (⇨ P.4-37)
- Have Bender messages been received without returning to the center position?

## Metronome does not sound

- Is the Metronome set to off? (⇨ P.4-101)
- Check the Metronome output in the System configuration (⇨ P.4-44).  
If a plug is inserted into the metronome output jack (rear panel), the metronome will not be heard in either the MV-30 or the headphones.

## Cannot set the beat (time signature)

- It is not possible to modify the time signature of an already-recorded measure.

## MIDI synchronization does not work

- When the MV-30 is the slave
  - Is Sync Clock set to "MIDI"? (⇨ P.4-101)
  - Is the external sequencer set to transmit Clock messages?
- When the MV-30 is the master
  - Is Sync Clock set to "INT"? (⇨ P.4-101)
  - Is Sync Out turned off? (⇨ P.4-44)
  - Is the external sequencer set to receive Clock messages?

### Tape synchronization does not work

- Is Sync Clock set to "Tape"? (⇨ P.4-101)
- Has the Tape Sync II signal been correctly recorded to tape?
- Is the level of the Tape Sync II signal too low?
- Is noise reduction or equalization turned on?

### Notes are cut off unnaturally

- The MV-30 is able to produce up to 30 notes simultaneously. No more than this number of notes can be sounded together. Tones of Tone Type "Detune", "Dual", or "V-mix" use two voices for each note, and the number of maximum simultaneous notes will decrease accordingly.
- If you want to prevent notes from being stolen from a track, make appropriate Voice Reserve settings for that track. (⇨ P.3-41)

### Aftertouch has no effect

- Are the Aftertouch Sensitivity (CAf Sens, PAf Sens) parameters for the pitch, TVF, TVA, or LFO of a Timbre set to 0?
  - Pitch (⇨ P.4-24)
  - TVF (⇨ P.4-27)
  - TVA (⇨ P.4-32)
  - LFO (⇨ P.4-34)
- For each key of the Rhythm Timbre, are the Aftertouch Sensitivity (CAf Sens, PAf Sens) parameters for Pitch set to 0? (⇨ P.4-38)

### Modulation has no effect

- Are the LFO sensitivity parameters (MOD Sens, CAf Sens, PAf Sens) set to 0? (⇨ P.4-33)
- Is the LFO Depth set to 15? If this is set to 15, the value is already at the maximum, and cannot be increased by a controller (⇨ P.4-33).
- Are the Timbre's LFO Sensitivity parameters for Pitch, TVF, or TVA set to 0?
  - Pitch (⇨ P.4-24)
  - TVF (⇨ P.4-28)
  - TVA (⇨ P.4-32)
- Modulation will not affect the Rhythm Timbre.

### The bender does not affect the pitch

- Are the Bend Range "Dwn" or "Up" parameters of the Timbre set to 0? (⇨ P.4-24)
- Are the Bend Range "Dwn" or "Up" parameters of the Rhythm Timbre set to 0? (⇨ P.4-36)

## 2. MESSAGES

---

### Are you sure?

When you execute an MV-30 operation, this message will appear, asking for confirmation.

To execute, press **F1** Execute. To cancel, press **EXIT**.

### Pattern Conversion

This will appear when you try to change Track Type from Pattern to Standard in the **Realtime REC** page. To execute, press **F1** Execute. To cancel, press **EXIT**.

### Overwrite OK?

This will appear when the disk contains a song with the same name as the song you are attempting to save. If you execute the save operation, the older file will be overwritten.

To execute, press **F1** Execute. To cancel, press **EXIT**.

### Insert Source Disk

This will appear in the **Disk Copy** page. Insert the copy source disk.

### Insert Destination Disk

This will appear in the **Disk Copy** page. Insert the copy destination disk.

### Now Working!

This will appear when you have executed an MV-30 operation, or while the disk is active. Please wait for the message to disappear.

### Now Saving...

This will appear while data is being saved to disk. Please wait for the message to disappear.

### Now Loading...

This will appear while data is being loaded from disk. Please wait for the message to disappear.

### Formatting...

This will appear while the disk is being formatted. Please wait for the message to disappear.

### Complete

This indicates that an MV-30 operation has been completed successfully.

### Over Work

This will appear when the sequencer is unable to function correctly due to an excessively heavy processing load.

### Tempo

When you press **TEMPO**, the standard tempo will be displayed for approximately 2 seconds. The number inside the [ ] indicates the actual current tempo resulting from Tempo Change events.

### (MS - DOS Disk)

In the **Load MIDI File** page or the **Save MIDI File** page, this will appear when loading or saving standard MIDI files.

### (W - 30 Disk)

In the **Play** mode **SHIFT**+**F1** Load page, **Load Song** page, or **Save Song** page, this will appear when loading or saving songs from a W-30 disk.

### (MRC500 Disk)

In the **Play** mode **SHIFT**+**F1** Load page or **Load Song** page, this will appear when loading songs from a MRC-500/300 disk.

### (S - MRC Disk)

In the **Play** mode **SHIFT**+**F1** Load page, **Load Song** page, or **Save Song** page, this will appear when loading or saving songs from a Super-MRC disk.

### (SYS - 503)

In the **Play** mode **SHIFT**+**F1** Load page or **Load Song** page, this will appear when loading songs from a SYS-503 disk.

### (SYS - 553/333)

In the **Play** mode **SHIFT**+**F1** Load page or **Load Song** page, this will appear when loading songs from a SYS-553/333 disk.

### MIDI Update

If you hold **CTRL** and press **▶/■** while the song is stopped, this display will appear while all non-note events from the beginning of the song to the current position are rapidly played back. Please wait until the display disappears, and then press **▶/■** to begin playback.

If the MIDI Update switch (☐ P.4-44) is on, and the MV-30 begins playback in synchronization to MIDI or tape, this display will appear while all non-note events from the beginning of the song to the current position are rapidly played back. When this ends, the MV-30 will chase to the MIDI or tape synchronization location, and begin playback. To abort the transmission of the non-note MIDI data, you can press **EXIT**.

# 3. ERROR MESSAGES

---

## Can not execute

**Situation** Execution is not possible. This will appear when you attempt to execute an operation with illegal parameter values, etc.

**Response** Set the correct values, and execute once again.

## Out Of Memory

**Situation 1** The internal memory is full, and songs cannot be loaded or edited.

**Situation 2** When you attempted to save a song to a W-30, Super-MRC, or standard MIDI file disk, the internal memory was filled up, and the operation cannot be continued.

## Point Error

**Situation** Loop recording is not possible. This will appear when the recording mode is "Loop <P>" and the REC Start point and REC End point are less than 1 measure apart.

**Response** Set the REC Start point and REC End point one measure or more apart.

## No Pattern

**Situation** No patterns exist, so execution is not possible.

## No Song Data

**Situation** Event data does not exist in the selected song or track, so execution is not possible.

## EX Format Error

**Situation** The system exclusive data is not in Roland format, so a checksum cannot be calculated.

## Track Type Error

**Situation** Since tracks of different types are selected, execution is not possible (☞ P.4-46).

## End of Measure

**Situation 1** The data you attempted to input was beyond measure 9999 of the track, and cannot be inserted.

**Situation 2** The data you attempted to input was beyond the length of the Pattern, and cannot be inserted.

**Response** In the case of a Pattern, change the pattern size (☞ P.4-84).

## This Song use Timbre Bank

**Situation** The song and the Timbre Bank Number do not match. This will appear when another song is selected if the Timbre Bank number specified by that song differs from the Timbre Bank number currently loaded into the MV-30.

**Response** Press **[F1]** Load, and load the Timbre Bank specified by that song. If you press **[EXIT]**, Timbre loading will be cancelled, and the Timbre Bank number specified by that song will be changed to the Timbre Bank currently loaded into the MV-30.

## No Card!

**Situation** A PCM card is not inserted.

If a card tone is selected for "Tone Media" in the **[Timbre Edit]** page, this will appear if that PCM card is not inserted.

**Response** Insert the PCM card into the slot.

## Please Insert System Disk

**Situation** The system disk is not inserted into the disk drive.

**Response** Insert the system disk.

## Write Protected

**Situation** It is not possible to write to the disk. This will appear if you attempt to save data to a disk whose protect tab is in the PROTECT position.

**Response** Set the protect tab to the WRITE position.

## Insert Disk

**Situation** A disk is not inserted into the disk drive.

**Response** Insert the correct disk into the disk drive.

## Not System Disk

**Situation** The disk is not a system disk. In the **[System Config]** page if you attempt to save System Configuration data to a disk which is not a system disk, this will appear.

**Response** Insert a disk which contains the system.

## Disk Full

**Situation** The disk song memory is full.

**Response** Either save the data to a different disk, or delete unwanted songs from the disk using the "Delete Song" operation (⇨ P.3-71).

## Wrong Disk

**Situation** An incorrect disk is inserted.

**Response** Insert the correct disk.

## Not MS-DOS Disk

**Situation** The inserted disk is not an MS-DOS disk. This will appear if you attempt to move to the **【Load MIDI File】** page or **【Save MIDI File】** page when the inserted disk is not an MS-DOS disk.

**Response** Insert an MS-DOS disk that contains standard MIDI files.

## Data Error

**Situation** The data of the standard MIDI file is incorrect, and cannot be loaded. (the **【Load MIDI File】** page)

## Input Song Name

**Situation** The song has not been given a name. This will appear when you attempt to save a song which has not been given a name to a Super-MRC or standard MIDI file disk.

**Response** Input the song name.

## Read Error

**Situation** Data could not be correctly loaded from disk. This will appear when data could not be loaded due to a scratch on the magnetic surface of the disk, or some other reason.

## Write Error

**Situation** Data could not be correctly saved to disk. This will appear when data could not be saved due to a scratch on the magnetic surface of the disk, or some other reason.

## MIDI Overflow

**Situation** This will appear when more MIDI messages than could be processed were received at MIDI IN.

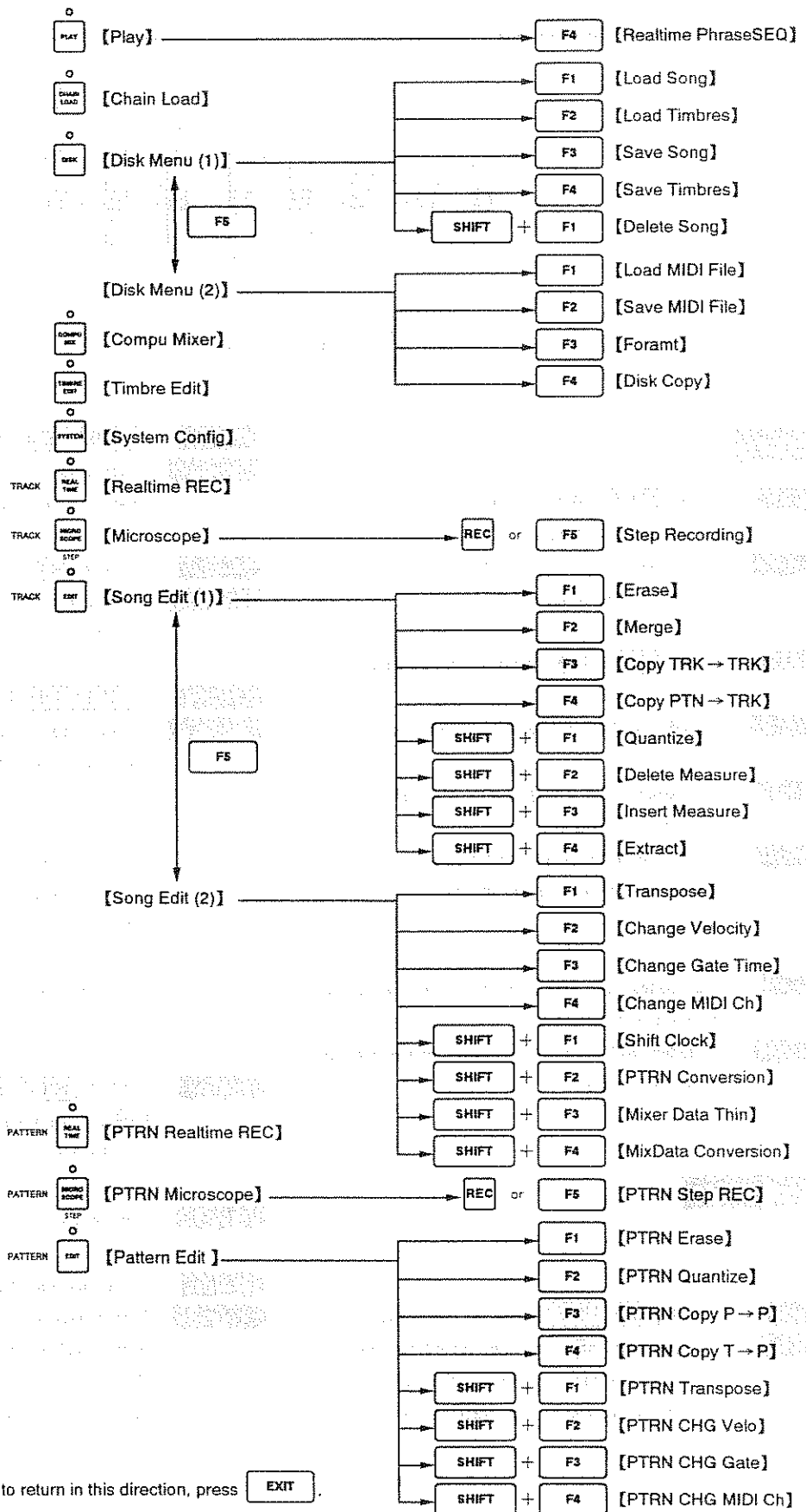
**Response** Reduce the amount of MIDI messages that are being received by the MV-30.

## Active Sens Error

**Situation** This will appear if the MV-30 stops receiving Active Sensing messages in recording mode, and decides that the MIDI connection has been broken.

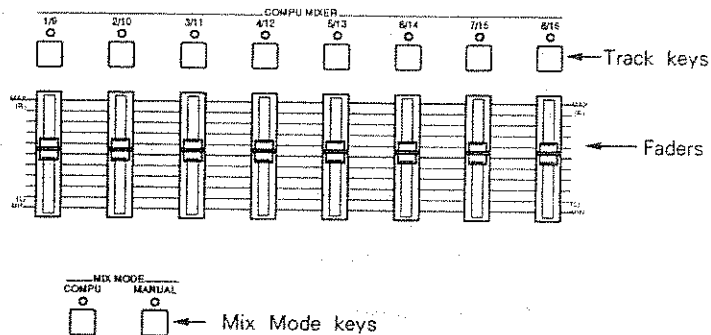
**Response** Check MIDI connections.

# 4. MODE CHART



# 5. FUNCTIONS THAT CHANGE OPERATION

## BY MODE



### Faders

**Situation** In the **COMPU MIX** [Compu Mixer] page when the mix mode is COMPU.

**Operation** Faders whose track key indicators are off will control the selected function.

**Situation** In the **COMPU MIX** [Compu Mixer] page when the mix mode is MANUAL.

**Operation** All faders will control the selected function.

**Situation** In all pages other than [Compu Mixer] when the mix mode is COMPU.

**Operation** Faders whose track key indicators are off will control the volumes of the internal sound source tracks.

**Situation** In all pages other than [Compu Mixer] when the mix mode is MANUAL.

**Operation** All faders will control the volumes of the internal sound source tracks.

### Track keys

**Situation** TRACK **REALTIME** [Realtime REC] page.

**Operation** After pressing **REC** to enter recording standby, you can press a track key to select that track. When not in recording standby, the track keys switch the mode of the track.

Red recording, or standing by for recording

**Situation** **TIMBRE EDIT** [Timbre Edit] page

**Operation** Press a track key, and the Timbre being played by that track will appear in the [Timbre Edit] display.

**Situation** TRACK **MICROSCOPE** [Microscope] page

**Operation** Press a track key, and that track will appear in the [Microscope] display.

**Situation** **COMPU MIX** [Compu Mixer] page

**Operation** If the mix mode is COMPU, the track key indicators display the status of the mixer.

Red When the compu mixer is recording, fader movements will be recorded.

Green The selected function will be controlled by the data in the mixer track.

Off The selected function will be controlled by the fader.

Press the track keys to switch the status of each track.

**Situation** TRACK **MICROSCOPE** [Microscope] page →

**REC** [Step Recording] page

[PTRN Microscope] page → **REC** [PTRN Step REC] page

**Operation** The track keys will not function.

**Situation** Situations other than the above.

**Operation** Press a track key to turn off the indicator, and notes of that track will be muted.

Green the track contains data, and can be played

Off either the track contains no data, or it is muted



## key



**Situation** TRACK **MICROSCOPE** [Microscope] page  
**Operation** The selected track will playback.  
\* When Tempo or Mixer track is selected, the track will not playback.


**Situation** PATTERN **REALTIME** [PTRN Realtime REC] page, PATTERN **MICROSCOPE** [PTRN Microscope] page, PATTERN **EXIT** pages except for [PTRN Copy T → P]

**Operation** The selected Pattern will playback.  
\* When All patterns are selected, no pattern will playback.  
\* In the [PTRN Copy P → P] Page, the copy source pattern will playback.

**Situation** TRACK **MICROSCOPE** → **REC** [Step Recording] page, PATTERN **MICROSCOPE** → **REC** [PTRN Step REC] page

**Operation** This key will enter a tie. The step time and gate time of the previous event will be extended (⇨ P.4-59).

**Situation** Situations other than the above

**Operation** The entire song will playback. However, playback is not possible when the indicator in the upper right of the screen shows .  
\* When All patterns are selected, no pattern will playback.  
\* In the [PTRN Copy P → P] Page, the copy source pattern will playback.

## **INS** **DEL** key



**Situation** TRACK **MICROSCOPE** [Microscope] page, PATTERN **MICROSCOPE** [PTRN Microscope] page.

**Operation** **INS** will insert an event displayed on the top line.  
**DEL** will delete the event displayed on the top line.

**Situation** When inputting a name

**Operation** **INS** will insert a space at the cursor location.  
**DEL** will delete the character at the cursor location.

**Situation** **CHAIN LOAD** [Chain Load] page

**Operation** **INS** will insert a line displayed at the cursor line.  
**DEL** will delete the cursor line.

**Situation** TRACK **EDIT** [Song Edit (1)] page  
**Operation** **INS** selects the [Insert Measure] page. **DEL** selects the [Delete Measure] page.

**Situation** TRACK **REALTIME** [Realtime REC] page while Loop or Mix recording, PATTERN **REALTIME** [PTRN Realtime REC] Page while recording.

**Operation** Press **DEL** and a popup window will open, allowing you to press a key on the connected MIDI keyboard to delete the data of that key in realtime. If you press two keys, all data between those two keys will be deleted.

**Situation** TRACK **REALTIME** [Realtime REC] page while stopped

**Operation** Press **DEL** to delete the data from the track.

**Situation** PATTERN **REALTIME** [PTRN Realtime REC] page while stopped

**Operation** Press **DEL** to clear (delete all data from) the Pattern.

**Situation** Situations other than the above  
**Operation** These keys will not function

## Response when receiving MIDI messages

**Situation** **TIMBRE EDIT** [Timbre Edit] page  
**Response** Regardless of the channel, incoming MIDI messages will sound the selected Timbre.

**Situation** TRACK **REALTIME** [Realtime REC] page, TRACK **MICROSCOPE** [Microscope] page → **REC** [Step Recording] page, PATTERN **REALTIME** [PTRN Realtime REC] page, PATTERN **MICROSCOPE** [PTRN Microscope] page → **REC** [PTRN Step REC] page

**Response** Incoming MIDI messages will be handled the same way as data in the selected track. If an internal sound source track is selected, the Timbre assigned to that track will sound, regardless of the channel of the incoming MIDI message. If an external sound source track is selected, the channel of the incoming MIDI message is used. If Channelize is being used, the data will be accepted as being on that channel.

**Situation** Situations other than the above  
**Response** The channel of incoming MIDI messages will be valid. The MV-30 will function as a multi-timbral sound source, and MIDI messages on channels which match a receive channel (⇨ P.4-3) of a track will sound the Timbre of that track.

# 6. PARAMETER LIST

## System configuration parameters

Parameter	Display	Values	Page
Metronome headphone output switch	Metro → Phone	Off, On	【System Config】
Sync output	Sync Out	Off, On	
Active sensing output	Sens Out	Off, On	
Soft thru	Soft THRU	Off, On	
Pedal assign	Pedal Assign	Off, Start/Stop, Punch I/O	
Master tuning	Master Tune	427.4 — 452.9	
MIDI update switch	MIDI Update	Off, On	

## Chain load settings

Parameter	Display	Values	Page
The song to play	Song Name	Songs on disk	【Chain Load】
	Start mode	Auto, Man	
	Repeat mode	End, Repeat	
Auto start switch	Auto Start Switch	Off, On	【Chain Load】 [F2] Save Set

## Disk label

Parameter	Display	Values	Page
Disk label	Label	11 characters	【Format】

# Song parameters

Parameter		Display	Values	Initial value	Page
Song name		Name	28 characters	space	<b>[SONG SELECT]</b> <b>[Save Song]</b>
Metronome		Metro	Off, REC Only, REC&Play, Always	REC Only	<b>[SONG SELECT]</b>
Sync clock		Sync Clock	INT, MIDI, Tape	INT	
Standard tempo		Tempo/ J	10 — 250	120	<b>[Compu Mixer]</b> <b>[Realtime REC]</b> <b>[PTRN Realtime REC]</b> <b>[STATUS] [TEMPO]</b>
0 — 9	REC start point	REC Start	(M/B/C)	1/1/0	<b>[LOCATE]</b>
	REC end point	REC End	(M/B/C)	1/1/0	
	User point	User 1 — 8	(M/B/C)	***	
1 — 9998	Rehearsal mark	Rehearsal mark	4 characters	****	<b>[MARK]</b>
Effect patch select		Effect	1 — 5	1	<b>[Play] [F2] Chorus,</b> <b>[F3] Reverb</b> <b>[Realtime REC]</b> <b>[SHIFT] + [F1], [SHIFT] + [F2]</b>
Effect patches 1 — 5	Chorus/flanger type	Type	Chorus1, 2, FB — cho, Flanger, S. Delay	Chorus1	<b>[Play]</b> <b>[F2] Chorus</b> <b>[Realtime REC]</b> <b>[SHIFT] + [F1] Chorus</b>
	Output mode	Out	Pre Rev, Post Rev	Pre Rev	
	Delay time	Delay	0 — 31	0	
	Chorus/flanger level	Level	0 — 31	0	
	Chorus/flanger rate	Rate	0 — 31	0	
	Chorus/flanger depth	Depth	0 — 31	0	
	Feedback	Feedback	- 31 — 31	0	
	Reverb/delay type	Type	Room 1 — 3, Hall 1, 2, Gate, Delay, X — Delay	Room 1	
	Reverb/delay time	Time	0 — 31	0	
	Reverb/delay level	Level	0 — 31	0	
Feedback	Feedback	0 — 31	0		
Timbre bank select		Bank	1 — 8	1	<b>[Save Song]</b> <b>[F1] Save, [F2] SngOnly</b>
RPS 1 — 20	Control channel	CTRL Channel	Off, 1 — 16	Off	<b>[Realtime PhraseSEQ]</b>
	Key to stop by	Stop by	--- (---), C — (0) — G 9(127)	--- (---)	
	Note number	Note #	C — (0) — G 9(127)	C — (0)	
	Track number	TRK	1 — 16	1	
	Pattern number	PTRN	1 —	***	
	Shot mode	Mode	1Shot, Loop, Quick1, QuickL	*****	

Parameter		Display	Values	Initial value	Page	
Recording mode		REC Mode	Normal, Mix, Key On, PunchMAN, PunchI/O, Punch IN, PunchOUT, Loop<1> — <16>, Loop<P>	Normal	[Realtime REC]	
Count in recording		Count In	Off, 1, 2	2		
New measure beat		New Measure Beat	1 — 32/2 — 16	4/4	[Realtime REC] [F1] [Step Recording]	
Recording switch	Polyphonic aftertouch	PAf	Off, On	Off	[Realtime REC] [F2] REC SW [PTRN Realtime REC] [F2] REC SW	
	Control change	C. Chg	Off, On	On		
	Program change	P. Chg	Off, On	On		
	Channel aftertouch	CAf	Off, On	Off		
	Pitch bender	Bend	Off, On	On		
	Exclusive and Tune Request	Excl	Off, On	On		
Tracks 1 — 8	Timbre select	Timbre	1 — 128, RHY	1 — 7, RHY	[Play] / [Realtime REC]	
	Output assign	Out	Dry, Rev, cho, Dir1, Dir2	Dry	[Play] / [Compu Mixer] [F1], [F2], [F3]	
	Output level	Level	0 — 127	Fader value		
	Pan	Pan	7L —> —<— R7, RND	> — <		
	Receive channel	Ch	1 — 16, — —	1 — 7, 10	[Play]	
	Voice reserve	Voice Res	0 — 30	0	[F5] Page	
Tracks 1 — 16	Track type	Track Type	Standard, Pattern	Standard	[Realtime REC]	
	Track name	Name	8 characters	space	[Realtime REC] [F3] TRK PRM	
	Track mode	Mode	Play, Mute	Play		
Tracks 9 — 16	External track → Internal track	INT	Off, On	Off		
	External track → MIDI OUT	EXT	Off, On	On		
Mixer track	Mix mode	MIX MODE indicator lit	[COMPU], [MANUAL]	[MANUAL]		
	Tracks 1 — 8	INT Lvl output switch	Track keys	Output on/off	Off	[Compu Mixer] [F1] INT Lvl
		INT Pan output switch	Track keys	Output on/off	Off	[Compu Mixer] [F2] INT Pan
		INT Out output switch	Track keys	Output on/off	Off	[Compu Mixer] [F3] INT Out
	ch1 — 16	EXT Vol output switch	Track keys	Output on/off	Off	[Compu Mixer] [F4] EXT Vol
		EXT Pan output switch	Track keys	Output on/off	Off	[Compu Mixer] [F5] EXT Pan
Track 1 — 16	1 — 999	Pattern name	Name	8 characters	space [PTRN Realtime REC] [F3] SetName [PTRN Realtime REC] [F5] Create	

# Timbre parameters

Timbre (1—128)

Parameter	Display	Values	Initial value	Page
Timbre name	Timbre name	12 characters	space	【Timbre Edit】
Tone media	Tone Media	INT1, 2, 3, U—01—32, D—01—32	not changed	
Tone number	Number	1— s 1, d 1—(D—01—32)	not changed	
Timbre level	Timbre Level	0—127	127	
Bend range down	Down	0—36	2	
Bend range up	Up	0—12	2	
Pitch coarse	Pitch Coarse	—24—24	0	
Pitch fine	Fine	—50—50	0	
Pitch channel aftertouch sensitivity	CAf Sens	—24—12	0	【Timbre Edit】 【F1】Pitch
Pitch polyphonic aftertouch sensitivity	PAf Sens	—24—12	0	
Pitch LFO sensitivity	LFO Sens	0—15	15	
Detune depth	Detune	0—15	5	
Auto bend depth	Depth	—24—12	0	
Auto bend rate	Rate	0—15	15	
Auto bend mode	Mode	Double, Single	Double	
TVF filter mode	Mode	Thru, LPF, BPF, HPF	Thru	
TVF cutoff	Cutoff	0—127	60	
TVF resonance	Resonance	0—127	0	
TVF cutoff key follow	Key Follow	—12—24	7	
TVF channel aftertouch sensitivity	CAf Sens	—15—15	0	
TVF LFO sensitivity	LFO Sens	0—15	0	
TVF envelope time key follow	Time Key Follow	0—15	5	
TVF envelope time velocity sensitivity	Time Vel Sens	0—15	7	
TVF envelope depth velocity sensitivity	Depth Vel Sens	0—15	7	
TVF attack time	A Time	0—127	0	
TVF attack level	A Level	—64—63	63	
TVF decay 1 time	D1 Time	0—127	25	
TVF decay break point level	DB Level	—64—63	40	
TVF decay 2 time	D2 Time	0—127	45	
TVF sustain level	S Level	—64—63	10	
TVF release time	R Time	0—127	34	
TVF velocity sensitivity	Vel Sens	—7—7	7	【Timbre Edit】 【F3】TVA
TVA channel aftertouch sensitivity	CAf Sens	—7—7	0	
TVF LFO sensitivity	LFO Sens	0—15	0	
TVA attack rate	A Rate	—7—7	0	
TVA decay rate	D Rate	—7—7	0	
TVA sustain level	S Level	—7—7	0	
TVA release rate	R Rate	—7—7	0	

Parameter	Display	Values	Initial value	Page
LFO wave	Wave	Triangle, Sine, Square, Saw Up, Saw Dwn, Trill1, Trill2, Random 1—4	Triangle	[Timbre Edit] [F4] LFO
LFO rate	Rate	0—63	50	
LFO depth	Depth	0—15	0	
LFO rise time	Rise Time	0—15	0	
LFO delay time	Delay	0—15	0	
LFO modulation sensitivity	MOD Sens	0—15	8	
LFO channel aftertouch sensitivity	CAf Sens	0—15	0	
LFO polyphonic aftertouch sensitivity	PAf Sens	0—15	0	

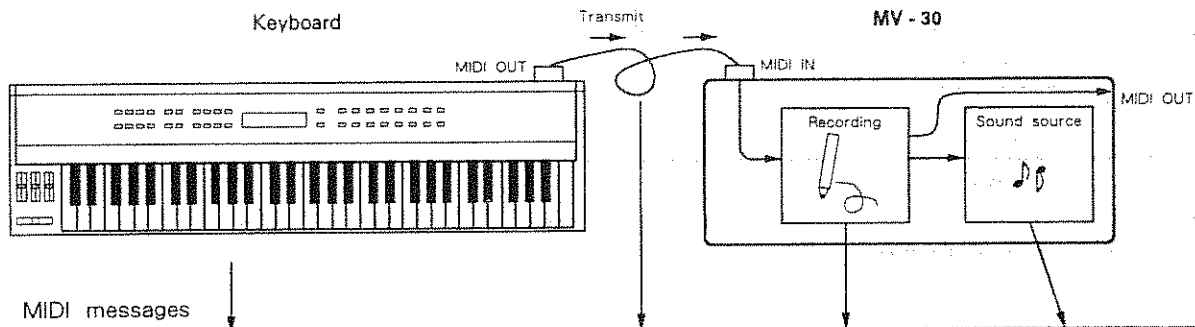
### Rhythm Timbre (RHY)

Parameter	Display	Values	Page
Rhythm timbre name	Rhythm timbre name	12 characters	[Timbre Edit]
Bend range down	Dwn	0—36	
Bend range up	Up	0—12	
Tone media	Tone Media	INT1, 2, 3, U—01—32, D—01—32	[Timbre Edit]
Tone number	Number	1— (D—01—32=s 1, d 1—)	
Source key	Source Key	Off, C—G#	
Level	Level	0—127	
Mute	Mute	Off, B1—D7	
Pitch coarse	Pitch Coarse	—24—24	
Pitch fine	Fine	—50—50	
Pitch channel aftertouch sensitivity	CAf Sens	—24—12	
Pitch polyphonic aftertouch sensitivity	PAf Sens	—24—12	[Timbre Edit] [F1] Pitch
Pitch randomize	Randomize	0—15	
Detune depth	Detune	0—15	
Auto bend depth	Depth	—24—12	
Auto bend rate	Rate	0—15	
Auto bend mode	Mode	Double, Single	[Timbre Edit] [F2] Filter
Filter mode	Mode	Thru, LPF, BPF, HPF	
Filter cutoff	Cutoff	0—127	
Filter resonance	Resonance	0—127	
Filter velocity sensitivity	Vel Sens	—7—7	
TVA envelope mode	ENV Mode	Sus, No Sus	[Timbre Edit] [F3] TVA
TVA attack rate	A Rate	—7—7	
TVA decay rate	D Rate	—7—7	
TVA release rate	R Rate	—7—7	
Velocity sensitivity	Vel Sens	—7—7	
Output assign	Out Assign	Dry, Rev, cho, Dir1, Dir2	[Timbre Edit]
Output pan	Pan	7L—> —<—R7, RND	[F4] Output

### Timbre bank name

Parameter	Display	Values	Page
Timbre bank name	Name	8 characters	[Save Timbres] [Save Song] [F1] Save

# 7. LIST OF EVENTS



Abbreviation	MIDI keyboard operation	Transmitted MIDI message	Microscope display	Response of MV-30
<b>Note</b>	Press a key	Note message	Note No. Vel Gate	The Timbre being played by that track will sound
<b>P.Chg</b>	Press a program select button to select a sound	Program Change message	P.Chg, value 1—128	The Timbre corresponding to the incoming Program Change number will be selected for that track
<b>Bend</b>	Move the pitch bender (pitch wheel) to raise or lower the pitch of a sounding note	Pitch Bender messages (continuous values are transmitted)	Bender Values of - 8192—0— + 8191 (Bend)	The pitch of the sound played by that track will be smoothly raised or lowered
<b>CAf</b>	Press down on the keyboard after playing a note	Channel Aftertouch messages (continuous values are transmitted)	Channel Af Values 0—127, (CAf)	The result will depend on the settings of the Timbre being played by that track (☞P.3-50)
<b>PAf</b>		Polyphonic Aftertouch messages for each note (continuous values are transmitted)	* PAf * note numbers and values 0—127	The result will depend on the settings of the Timbre being played by that track (☞P.3-50)
<b>C.Chg</b>	Move the modulation lever (modulation wheel) to add vibrato etc.	Control Change 1 message (modulation) (continuous values are transmitted)	C.Chg 1, values 0—127	Depending on the settings (☞P.3-50) of the Timbre being played by that track, the pitch, volume, or tone will be modulated
	Move the volume control to adjust the volume	Control Change 7 message (volume) (continuous values are transmitted)	C.Chg 7, values 0—127	The volume of that track will change
	Move the pan control to adjust the stereo position	Control Change 10 message (pan) (continuous values are transmitted)	C.Chg 10, values 0—127	The stereo position (pan) of that track will change
	Press the hold pedal to sustain the sound	Control Change 64 (hold 1 message) (transmitted for on and off)	C.Chg 64 (on: 0—63, off: 64—127)	The sound being played by that track will be sustained

Events recorded in the mixer track by pressing **REC** in the **【Compu Mixer】** page (unique to the MV-30)

Abbreviation	Action during compu mixer recording	Display in the microscope	Response of the MV-30 internal sound source
<b>INT Level</b>	In the <b>F1</b> INT Level page, press <b>REC</b> and move the faders	INT Level 0—127 (value)	The track volume will change
<b>INT Pan</b>	In the <b>F2</b> INT Pan page, press <b>REC</b> and move the faders	INT Pan (7L—1L) >— <R1—R7)	The stereo position (pan) of the track will change
<b>INT Out</b>	In the <b>F3</b> INT Output page, press <b>REC</b> and move the faders	INT Output (Dry, Rev, Cho, Dir1, Dir2)	The output destination of the track's sound will change
<b>EXT Vol</b>	In the <b>F4</b> EXT Volume Page, press <b>REC</b> and move the faders	EXT Volume (0—127)	— (C.Chg no.7 will be transmitted from MIDI OUT)
<b>EXT Pan</b>	In the <b>F5</b> EXT Pan Page, press <b>REC</b> and move the faders	EXT Pan (L63—L1) >— <R1—R64)	— (C.Chg no.10 will be transmitted from MIDI OUT)
<b>Effect</b>	Hold <b>SHIFT</b> and press <b>F1</b> — <b>F5</b>	Effect Change 1—5	The Effect Patch will change

Events inserted after recording (unique to the MV-30)

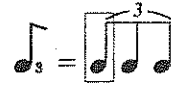
Abbreviation	Display in the microscope	Response of the MV-30 internal sound source
<b>Tempo</b>	Tempo Change 5—500	The tempo will change
<b>PTRN</b>	PTRN 1—	A Pattern will be called

Events inserted into only external sound source tracks (MIDI messages)

Abbreviation	Display in the microscope	Remarks
<b>EX</b>	Exclusive	Message unique to each MIDI device
<b>TU</b>	Tune Request	Message to make sound source tuning



# 8. LIST OF CLOCK VALUES



Note value	Step time/key	Note value	Step time/key
	384		32 [5]
	288		36
	192 [9]		24 [4]
	128		16 [3]
	144		18
	96 [8]		12 [2]
	64 [7]		8
	72		6 [1]
	48 [6]		3 [0]

# 9. HOW TO READ PRINTED MUSIC

## When inputting printed music that contains repeat marks ...

Printed music often contains repeat marks, D.C. (da capo), or D.S. (dal segno) marks to indicate jumps to specific sections of the song.

<p>  : :   Repeat marks (repeat the area enclosed by the marks)</p>	
<p>1. 2. (jump to another measure depending on the number of times played back.)</p>	
<p>D.C. Da capo (return to the beginning of the song)</p>	
<p>D.S. Dal segno (jump to the ♯ = segno)</p>	
<p>⊕ To coda (jump to the ⊕ or coda)</p>	

## Various symbols used in printed music

Printed music contains not only notes, but a wide variety of abbreviations. Here are some of the frequently used ones.

- 8va* play (input) notes 1 octave higher than printed
- 8vb* play (input) notes 1 octaves lower than printed
- 2/4 time
- 4/4 time
- repeat the phrase of the previous beat
- repeat the phrase of the previous measure
- repeat the phrase of the previous two measures
- repeat the phrase of the previous four measures
- col. A play the same as section A
- simile-* play the same as phrase ~ (play the same as another instrument)

# 10. INTERNAL TONE LIST

## INT 1 (Instrumental sounds)

No.	Tone Name	Tone Type
1	A . PIANO 1	V - Mix
2	A . PIANO 2	V - Mix
3	A . PIANO 3	V - Mix
4	A . PIANO 4	V - Mix
5	A . PIANO 5	Single
6	A . PIANO 6	Detune
7	A . PIANO 7	Single
8	A . PIANO 8	Detune
9	A . PIANO 9	Single
10	A . PIANO 10	Detune
11	E . PIANO 1	V - Mix
12	E . PIANO 2	Single
13	E . PIANO 3	Detune
14	E . PIANO 4	Single
15	E . PIANO 5	Detune
16	BRIGHT EP1	Single
17	BRIGHT EP2	Detune
18	E . ORGAN 1	Single
19	E . ORGAN 2	Detune
20	E . ORGAN 3	Single
21	E . ORGAN 4	Detune
22	E . ORGAN 5	Single
23	E . ORGAN 6	Detune
24	E . ORGAN 7	Single
25	E . ORGAN 8	Detune
26	E . ORGAN 9	Dual
27	E . ORGAN 10	Dual
28	E . ORGAN 11	Dual
29	E . ORGAN 12	Dual
30	E . ORGAN 13	Dual
31	R . ORGAN 1	Dual
32	R . ORGAN 2	Dual
33	A . GUITAR 1	Single
34	A . GUITAR 2	Detune
35	A . GUITAR 3	Dual
36	A . GUITAR 4	Dual
37	A . GUITAR 5	V - SW
38	E . GUITAR 1	V - SW
39	E . GUITAR 2	Single
40	E . GUITAR 3	Single
41	E . GUITAR 4	Detune
42	HEAVY . EG 1	Single
43	HEAVY . EG 2	Detune
44	SLAP 1	Single
45	SLAP 2	Detune
46	SLAP 3	Single
47	SLAP 4	Detune
48	SLAP 5	V - SW
49	SLAP 6	V - SW
50	SLAP 7	Single

No.	Tone Name	Tone Type
51	SLAP 8	Detune
52	SLAP 9	Single
53	SLAP 10	Detune
54	SLAP 11	V - SW
55	SLAP 12	V - SW
56	FINGERED 1	Single
57	FINGERED 2	Detune
58	PICKED 1	Single
59	PICKED 2	Detune
60	FRETLESS 1	Single
61	FRETLESS 2	Detune
62	AC . BASS	V - Mix
63	CHOIR 1	Single
64	CHOIR 2	Single
65	CHOIR 3	Dual
66	CHOIR 4	Dual
67	STRINGS 1	Single
68	STRINGS 2	Single
69	STRINGS 3	Dual
70	STRINGS 4	Dual
71	SOFT TP 1	Single
72	SOFT TP 2	Detune
73	SOFT TP 3	Single
74	TP / TRB 1	Single
75	TP / TRB 2	Single
76	TP / TRB 3	Single
77	TP / TRB 4	Single
78	TP / TRB 5	Detune
79	TP / TRB 6	Dual
80	BRASS 1	Single
81	BRASS 2	Single
82	BRASS 3	Dual
83	BRASS 4	Dual
84	BRASS 5	Dual
85	SAX 1	Single
86	SAX 2	Single
87	SAX 3	Single
88	SAX 4	Detune
89	SAX 5	Dual
90	FLUTE 1	Single
91	FLUTE 2	Detune
92	SHAKU 1	Single
93	SHAKU 2	Detune
94	CALLIOPE 1	Single
95	CALLIOPE 2	Detune
96	L . CALLIOPE	V - Mix
97	PAN PIPES1	Single
98	PAN PIPES2	Detune
99	BAGPIPES 1	Single
100	BAGPIPES 2	Detune
101	BALAPHONE	Single
102	BTRIMBAO	Single
103	KALIMBA	Single
104	CYMBALON 1	Single
105	CYMBALON 2	Detune
106	VIB 1	Single
107	VIB 2	Detune
108	MARIMBA	Single

**INT 2 (Synthesizer waveforms)**

No.	Tone Name	Tone Type
1	FANTASIA	Dual
2	FANTASYNT1	Single
3	FANTASYNT2	Detune
4	JP . STRING1	Single
5	JP . STRING2	Detune
6	SYN . VOX 1	Single
7	SYN . VOX 2	Detune
8	SYN . VOX 3	Single
9	SYN . VOX 4	Detune
10	SYN . HARP 1	Single
11	SYN . HARP 2	Detune
12	SPECT BELL	Dual
13	FANTABELL1	Single
14	FANTABELL2	Detune
15	DIGI . BELL1	Single
16	DIGI . BELL2	Detune
17	DIST 5TH 1 *	Single
18	DIST 5TH 2 *	Detune
19	SOFT SYN 1	Single
20	SOFT SYN 2	Detune
21	BASS LP 1 *	Single
22	BASS LP 2 *	Detune
23	BELL LP 1	Single
24	BELL LP 2	Detune
25	HARP ATK 1	Single
26	HARP ATK 2	Detune
27	PIZZ 1	Single
28	PIZZ 2	Detune
29	EP WAVE 1	Single
30	EP WAVE 2	Detune
31	CLAV WAVE1	Single
32	CLAV WAVE2	Detune
33	LITE WAVE1	Single
34	LITE WAVE2	Detune
35	B - 3 WAVE 1	Single
36	B - 3 WAVE 2	Detune
37	SAX WAVE 1	Single
38	SAX WAVE 2	Detune
39	BLO WAVE 1	Single
40	BLO WAVE 2	Detune
41	SYN . WAVE 1	Single
42	SYN . WAVE 2	Detune
43	SYN . WAVE 3	Single
44	SYN . WAVE 4	Detune
45	SYN . PULSE1	Single
46	SYN . PULSE2	Detune
47	SYN . PULSE3	Single
48	SYN . PULSE4	Detune
49	SYN . PULSE5	Single
50	SYN . PULSE6	Detune
51	SYN . SQU 1	Single
52	SYN . SQU 2	Detune
53	SYN . TRI 1	Single
54	SYN . TRI 2	Detune
55	SYN . SAW 1	Single
56	SYN . SAW 2	Detune
57	SYN . SAW 3	Single

No.	Tone Name	Tone Type
58	SYN . SAW 4	Detune
59	SYN . SAW 5	Single
60	SYN . SAW 6	Detune
61	DIGITAL 1	Single
62	DIGITAL 2	Detune
63	DIGITAL 3	Single
64	DIGITAL 4	Detune
65	DIGITAL 5	Single
66	DIGITAL 6	Detune
67	DIGITAL 7	Single
68	DIGITAL 8	Detune
69	DIGITAL 9	Single
70	DIGITAL 10	Detune
71	DIGITAL 11	Single
72	DIGITAL 12	Detune
73	DIGITAL 13	Single
74	DIGITAL 14	Detune
75	DIGITAL 15	Single
76	DIGITAL 16	Detune
77	DIGITAL 17	Single
78	DIGITAL 18	Detune
79	WHITENOISE	Single
80	BREATH	Single
81	SPECTRUM 1	Single
82	SPECTRUM 2	Single
83	NOISE 1	Single
84	NOISE 2	Single

**INT 3 (Rhythm sounds)**

No.	Tone Name	Tone Type
1	SNAREDRUM1	Single
2	SNAREDRUM2	Single
3	SNAREDRUM3	Single
4	SNAREDRUM4	Single
5	SNAREDRUM5	Single
6	KICK 1	Single
7	KICK 2	Single
8	KICK 3	Single
9	KICK 4	Single
10	TOM 1	Single
11	TOM 2	Single
12	HI - HAT	Single
13	CHINA CYM	Single
14	CRASH CYM	Single
15	RIDE BELL	Single
16	SIDE STICK	Single
17	STICKS	Single
18	CABASA	Single
19	CLAPS	Single
20	COWBELL	Single
21	808 SNARE	Single
22	808 HI - HAT	Single
23	808 TOM	Single
24	ELEC TOM	Single
25	808 CLAVES	Single
26	CLICK	Single
27	AGOGO	Single
28	ORCH HIT	Single

When the Tone with \* mark, the Pitch Bender may not be turned on.

# 11. CONTENTS OF THE INCLUDED DISK

## Demo songs

Song name	Composer/Copyright holder	Remarks
<b>Above &amp; Beyond</b>	Music by Larry Garcia (USA), copyright © 1990, Roland US	The song opens with a memorable "sigh"-like sound using noise. Notice the dramatic tempo changes.
<b>Blowout! (TapeB)</b>	Music by Paul Youngblood (USA), copyright © 1990, Roland US	This is a demo song for tape sync. As explained on page 17 of Quick Start, play it back in synchronization with side B of the included demo tape. The tape contains solo parts with real sax and guitar, and the MV-30 provides a complex rhythmic accompaniment.
<b>Classical</b>		
<b>Confusion (TapeA)</b>	Music by Marvin Sanders (USA), copyright © 1990, Roland US	This is a demo song for tape sync. As explained on page 17 of Quick Start, play it back in synchronization with side A of the included demo tape. The tape contains an unaccompanied vocal (chorus), and the MV-30 handles the instrumental parts.
<b>Do Not Hesitate.</b>	Music by Masayuki Saitou (Japan), copyright © 1990, Roland	This is a light 16-beat song. Enjoy the realistic brass and woodwind solos.
<b>LifeCycle</b>	Music by Marvin Sanders (USA), copyright © 1990, Roland US	This song conjures up the delicate nuances of the breath of life. Notice how changes in effects and Timbres are used to great effect.
<b>Microchip</b>	Music by Amin Bhatia (Canada), copyright © 1990, Amin Bhatia	Now for a speedy arrangement. Does the music suggest the LSIs (large scale integrated circuits) used in electronic instruments? In the compu mix page you can see how volume and pan are going through dizzy changes.
<b>MV - 30 RPS Demo</b>	Music by Marvin Sanders (USA), copyright © 1990, Roland US	This song data shows off the new RPS (realtime phrase sequence) function of the MV-30. As explained on page 16 of Quick Start, try out the RPS function for yourself. There are rhythm pattern examples (patterns 1—34) in the track 8.
<b>Papa John</b>	Music by Adrian Scott (Australia), copyright © 1990, Adrian Scott	This is a realistic band ensemble in pop style. Pay attention to the sax and piano sounds.
<b>Song A.K.I.</b>	Music by Akihiro Kaseda (Japan), copyright © 1990, Roland	A strange atmosphere is created by the combination of a mechanical beat and acoustic instruments.
<b>Swingin'</b>	Music by Chas Smith (UK), copyright © 1990, Chas Smith	Roland UK's Senior Product Specialist/Demonstrator joined the company in 1987, after a free-lance career playing in rock bands. He is an active composer, principally for the jingle market. His particular interests lie in the use of the latest sampling technology, and in programming synthesizers.
<b>XX - Town</b>	Music by Motokazu Shinoda (Japan), copyright © 1990, Roland	This jazz combo centered on keyboard projects a city mood. The piano and synth solos are especially nice.

## List of RPS Demo song

In the Demo Song "MV-30 RPS Demo", patterns and keys correspond as follows.

Key	TRK - PTRN	Pattern Name	Mode	Optimal tempo
C 2	4 - 1	# 1 Intro	1shot	105
C # 2	2 - 1	# 1 Gtr.	Loop	105
D 2	1 - 1	# 1 Bass	Loop	105
D # 2	3 - 1	# 1 Vox	Loop	105
E 2	8 - 35	# 1 T = 105	Loop	105
F 2	5 - 1	# 1 Hit	Loop	105
F # 2	6 - 1	# 1 Solo	1shot	105
G 2	8 - 36	# 1DrmFil	1shot	105
G # 2	8 - 38	# 2DrmFil	1shot	118
A 2	8 - 37	# 2 T = 118	Loop	118
A # 2	4 - 2	# 2 Brass	Loop	118
B 2	1 - 3	# 2 Bass	Loop	118
C 3	Stop all currently playing Patterns			
C # 3	1 - 4	# 3 Bass	Loop	120
D 3	8 - 39	# 3 T = 120	Loop	120
D # 3	7 - 1	# 3 Klmba	Loop	120
E 3	8 - 40	BlsT = 130	Loop	130
E # 3	1 - 2	BlusBass	Loop	130
F 3	6 - 2	Blus Pno	Loop	130
G 3	8 - 41	\$ DmT = 145	1shot	145
G # 3	6 - 3	\$ Piano	1shot	145

In addition to the contents of the table at left, this song contains Rhythm Pattern samples.

TRK - PTRN	Pattern Name	Optimal tempo
8 - 1	Rock 1	120
8 - 2	Rock 2	120
8 - 3	Rock 3	120
8 - 4	Rok Fil1	120
8 - 5	Rok Fil2	120
8 - 6	1/2X Rok	120
8 - 7	Funk 1	120
8 - 8	FunkFil1	120
8 - 9	Funk 2	120
8 - 10	Funk 3	120
8 - 11	FunkFil2	120
8 - 12	Shuffle1	120
8 - 13	Shuffle2	120
8 - 14	Reggae	120
8 - 15	Reg Fil	120
8 - 16	Country	120
8 - 17	Rap 1	120
8 - 18	Rap 2	120
8 - 19	Metal 1	110
8 - 20	Metal 2	105
8 - 21	Swing 1	80
8 - 22	Swing 2	95
8 - 23	Oldies	150
8 - 24	Old Fill	150
8 - 25	Bossa	70
8 - 26	Samba	70
8 - 27	Mambo	120
8 - 28	Salsa	120
8 - 29	Ltn Fill	120
8 - 30	5/4	200
8 - 31	5/4 Jazz	200
8 - 32	7/8	115
8 - 33	Batucata	243
8 - 34	Wipeout !	155

---

## Profiles of the demo song composers

### **Adrian Scott**

Adrian Scott formerly handled the vocals and keyboards for the popular group from Australia, "Air Supply". Since following the solo path, he in 1984 won the Silver Prize at the "World Song Festival Tokyo '84". Currently, he is involved as a producer of commercial music and music for films. In addition, as a session player, he has performed along with a number of Australia's top musicians, including John Farnham and Kylie Minogue. He lives in Melbourne, Australia.

### **Marvin Sanders**

Marvin Sanders is an accomplished composer/keyboardist and authority on creative sequencing applications. An active musical director and composer for film, television, and theatre, he lives in Los Angeles where his talents are utilized in studios and live performance. As a product specialist and clinician for the Roland Corporation, other contributions have included the ROM demo in the D-5.

### **Amin Bhatia**

As a synthesist & film composer Amin maintains a reputation in electronic music for both the United States and in Canada. He captured the Grand Prix two years in a row, 1981 and 1982 at the "Roland International Synthesizer Tape Competition" in Tokyo Japan. Since then he has worked with respected professionals in the music industry including David Foster and Steve Porcaro of TOTO.

Examples of his extraordinary talent in synthesized orchestration can be heard on his solo album "Interstellar Suite" (Capitol/EMI 1987), his film score to "Iron Eagle 2" (Carolco/Tri Star 1988), and of course in many product demo's for Roland worldwide.

### **Akihiro Kaseda**

Akihiro Kaseda is a keyboardist who bases his activities mainly in the Kansai (western metropolitan) region of Japan. Since his college years, when he racked up experience with numerous bands, he has made his presence felt throughout all sectors of the Kansai music scene. In recent years he has become known and respected as a composer and sound producer, and has ventured into creation of tunes used in commercials on T.V. and on FM.

### **Larry Garcia**

Larry Garcia joined Roland Corp US in February, 1987, as a Keyboard Product Specialist. As a performing keyboardist and songwriter, Larry is currently active in arranging and programming with artists around Los Angeles as well as working with various artists from other countries. Larry's music can be heard on Roland's new compact disk "Roland: A Sound Approach."

### **Paul Youngblood**

Paul Youngblood is a sound designer, author, composer, performer, and noted authority on electronic musical instruments. He has done sound design work for top artists such as George Michael, Lee Ritenour, KISS, and Larry Carlton. A graduate of the Berklee College of Music, Paul is the author of the Hal Leonard publication MIDI Guitar and Synthesis, an important reference book for guitar synthesists. Paul regularly conducts clinics for Roland, Guitar Institute of Technology, Dick Groves School of Music, and is a part-time instructor for the UCLA Extension Program.

### **Motokazu Shinoda**

Motokazu Shinoda has been active as a backup keyboardist and stage arranger since his university days. He then entered the professional scene, formed an original group, and won the Tokyo Music Festival competition. He also gained a great deal of experience in studio work, and became active in computer music.

At present he owns his own company, "Motomusic", and is involved in a wide variety of musical activities: music production for commercials, events, animation, game music, film, and video; creating preset and original sound data for samplers and synthesizers; and composing original music. He has many publications on music theory and hardware-related topics.

### **Masayuki Saitoh**

A member of the Roland engineering staff.

### **Chas Smith**

Roland UK's Senior Product Specialist/Demonstrator joined the company in 1987, after a free-lance career playing in rock bands. He is an active composer, principally for the jingle market. His particular interests lie in the use of the latest sampling technology, and in programming synthesizers.

## List of Timbre banks

Bank	Name	Remarks
Bank 1	[MV-30set]	<p><b>Standard setup</b></p> <p>These are the standard Timbres of the MV-30; 128 various Timbres and a standard Rhythm Timbre. This Timbre Bank will be loaded automatically when the system is started up.</p> <p>* Some of the notes of the Rhythm Timbre (latin percussion, etc.) will not normally sound. These notes will sound if you insert the SN-MV30-01 Rhythm Section PCM card (one of the cards in the separately sold set SN-MV30-S1) into a card slot.</p>
Bank 2 Bank 3 Bank 4	[DemoSetA] [DemoSetB] [DemoSetC]	<p><b>Demo song Timbres A, B, C</b></p> <p>These Timbre Banks are for use by the demo songs on the included disk.</p>
Bank 5	[Multi(I)]	<p><b>Examples using internal Tones</b></p> <p>These are examples covering a wide variety of musical genres.</p>
Bank 6	[Multi(C)]	<p><b>Examples using optional cards</b></p> <p>These sounds are in the same arrangement as Bank 5, but MV-30 cards have been used to enhance some of the sounds. To use this bank, insert both cards of the separately sold MV-30 PCM card set (SN-MV30-S1) into the card slot.</p>
Bank 7	[MT-32(I)]	<p><b>MT-32 sounds using internal Tones</b></p> <p>This is following the arrangement of the Roland MT-32/CM-32L sound modules, and the arrangement of the LA section of the CM64. This means that if you have loaded song data that was created with these sound sources in mind, you can load this Timbre Bank and playback the song with essentially the same musical result, without even having to change the program change numbers (☞ P.3-70). (The sound is not quite the same as the MT-32.)</p>
Bank 8	[MT-32(C)]	<p><b>MT-32 sounds using optional cards</b></p> <p>These sounds are in the same arrangement as Bank 7, but MV-30 cards have been used to enhance some of the sounds. This allows even better sounds when playing back a song created for an MT-32 type sound source. To use this bank, you will need the separately sold MV-30 PCM card set (SN-MV30-S1).</p>

## Chain load setting

1	Microchip	by A.Bhatia	Auto
2	PapaJohn	by A.Scott	Auto
3	Classical		Auto
4	XX-Town	by M.Shinoda	Auto
5	LifeCycle	by M.Sanders	Auto
6	Swingin'	by C.Smith	Auto
7	Above & Beyond	by L.Garcia	Auto
8	Song A.K.I	by A.Kaseda	Auto
9	Do Not Hesitate	by M.Saitoh	Auto

Repeat  
(Auto Start Switch Off)



# List of Timbres

## Timbre Bank 1 (MV - 30set)

No.	Timbre Name
1	A. Piano 1
2	A. Piano 2
3	A. Piano 3
4	Honkytonk
5	E. Piano 1
6	E. Piano 2
7	E. Piano 3
8	E. Piano 4
9	E. Organ 1
10	E. Organ 2
11	R. Organ
12	Syn. Organ 1
13	Syn. Organ 2
14	Pipe Organ 1
15	Pipe Organ 2
16	Pipe Organ 3
17	Accordion 1
18	Accordion 2
19	Accordion 3
20	Harmonica
21	Harpsichord
22	Syn. Clavi.
23	Celesta 1
24	Celesta 2
25	Fantasia
26	Synth Harp
27	Pizzagogo
28	Spike Piano
29	A. Guitar 1
30	A. Guitar 2
31	A. Guitar 3
32	E. Guitar 1
33	E. Guitar 2
34	E. Guitar 3
35	Heavy Guitar
36	SynOverdrive
37	Slap Bass 1
38	Slap Bass 2
39	Slap Bass 3
40	Slap Bass 4
41	FingerBass 1
42	FingerBass 2
43	PickedBass 1

No.	Timbre Name
44	PickedBass 2
45	FrtlessBass1
46	FrtlessBass2
47	AcousticBass
48	SynthBass 1
49	SynthBass 2
50	SynthBass 3
51	SynthBass 4
52	SynthBass 5
53	SynthBass 6
54	Analog Lead
55	Lil' Nasty
56	Steel Drums
57	Choir 1
58	Choir 2
59	DigitalVoice
60	Funny Vox
61	Syn Vox 1
62	Syn Vox 2
63	JP Strings
64	DigiStrings
65	Strings 1
66	Strings 2
67	SloStrings 1
68	SloStrings 2
69	Brass 1
70	Brass 2
71	Brass 3
72	Trumpbone 1
73	Trumpbone 2
74	Trumpbone 3
75	Trumpbone 4
76	Horns
77	Syn. Brass 1
78	Syn. Brass 2
79	Saxophone 1
80	Saxophone 2
81	Saxophone 3
82	Saxophone 4
83	Flute
84	Syn. Clarinet
85	Syn. Oboe
86	Syn. Bassoon

## Timbre 1 - 128

No.	Timbre Name
87	French Horn
88	Tuba
89	Recorder
90	Shakuhachi
91	Panpipes
92	Bagpipes
93	Marimba
94	Vibe 1
95	Vibe 2
96	TwilightZone
97	TubularBells
98	Glass Bell
99	Fairy Bell
100	Glockenbell
101	Digi Bell
102	Fanta Bell
103	SpatialSweep
104	WhisperinVox
105	Orch Stab
106	Boys Chorale
107	Mellow Pad
108	Angel Breath
109	Schooldaze 2
110	DigiSequence
111	AuldSequence
112	Omen Brass
113	Harmon Mute
114	Calliope
115	PropheticSax
116	Devil's Horn
117	Oboe - Bassoon
118	Digi Banjo
119	Balaphone
120	Kalimba
121	Cymbalon
122	Harp Attack
123	Plucked
124	Wabi Sabi ?
125	Ascendors
126	Laser Shots
127	Noise Shots
128	WotDrumsSay ?

# Timbre Bank 1 (MV - 30set)

## Rhythm Timbre (Drum)

Note No.	Tone Name	Tone Media	Tone No.	Source Key
35	KICK 1	INT3	6	A 3
36	KICK 2	INT3	7	A 3
37	SIDE STICK	INT3	16	C 4
38	SNAREDRUM5	INT3	5	C 4
39	CLAPS	INT3	19	C 4
40	SNAREDRUM3	INT3	3	C 4
41	TOM 1	INT3	10	A #3
42	HI - HAT	INT3	12	C 4
43	TOM 2	INT3	11	C #4
44	HI - HAT	INT3	12	C #2
45	TOM 1	INT3	10	D 4
46	HI - HAT	INT3	12	C 4
47	TOM 2	INT3	11	F 4
48	TOM 1	INT3	10	F 4
49	CRASH CYM	INT3	14	C 4
50	TOM 2	INT3	11	G #4
51	RIDE BELL	INT3	15	C 4
52	CHINA CYM	INT3	13	C 4
53	RIDE BELL	INT3	15	C 4
54	TAMBOURINE	U - 31	35	F 5
55	STICKS	INT3	17	C 4
56	COWBELL	INT3	20	C 4
57	CRASH CYM	INT3	14	C 4
58	SNAREDRUM4	INT3	4	A #3
59	CRASH CYM	INT3	14	C 4
60	BONGO 3	U - 31	31	C 4
61	BONGO 1	U - 31	29	D #4
62	CONGA 3	U - 31	27	C #5
63	CONGA 2	U - 31	26	C #5
64	CONGA 4	U - 31	28	E 4
65	TIMBALE 1	U - 31	33	F 4
66	TIMBALE 2	U - 31	34	D 4
67	AGOGO	INT3	27	D 5
68	AGOGO	INT3	27	B 5
69	CABASA	INT3	18	C 4
70	MARACAS	U - 31	42	E 5
71	WHISTLE	U - 31	37	C 6
72	WHISTLE	U - 31	37	C 6
73	VIBRASLAP	U - 31	40	E 5
74	CUICA 2	U - 31	44	G #4
75	CLAVES	U - 31	32	C #6
76	GUIRO 2	U - 31	46	C 5
77	GUIRO 1	U - 31	45	C 5
78	CASTANET	U - 31	41	F 5
79	SCRATCH	U - 31	52	D 5
80	TRIANGLE	U - 31	38	F 6
81	808COWBELL	U - 31	53	C #4
82	WOOD BLOCK	U - 31	36	D #5
83	JINGLEBELL	U - 31	39	D 5
84	KICK 3	INT3	8	C 4
85	KICK 4	INT3	9	C 4
86	SNAREDRUM1	INT3	1	C 4
87	SNAREDRUM2	INT3	2	C 4
88	SNAREDRUM4	INT3	4	C 4
89	ELEC TOM	INT3	24	C 4
90	808 HI - HAT	INT3	22	C 4
91	ELEC TOM	INT3	24	C 4
92	808 HI - HAT	INT3	22	C 4
93	ELEC TOM	INT3	24	C 4
94	808 HI - HAT	INT3	22	C 4
95	808 SNARE	INT3	21	C 4
96	808 TOM	INT3	23	C 4
97	808 CLAVES	INT3	25	C 4
98	808 TOM	INT3	23	C 4

\* Insert the PCM card of SN - MV30 - 01 (U - 31).

## Timbre Bank 5 (Multi (1))

No.	Timbre Name
1	Piano 1
2	Piano 2
3	Piano 3
4	Honkytonk
5	E. Piano 1
6	E. Piano 2
7	Harpsichord
8	Clav.
9	Celesta
10	Glockenspiel
11	Music Box
12	Vibraphone
13	Marimba
14	Xylophone
15	Tublar Bells
16	Church Bell
17	Elec. Organ 1
18	Elec. Organ 2
19	Elec. Organ 3
20	Church Organ
21	Reed Organ
22	Accordion
23	Harmonica
24	Bandneon
25	A. Nyl Guitar
26	A. Stl Guitar
27	E. JazzGuitar
28	E. ClenGuitar
29	E. GuitarMute1
30	O. D Guitar 1
31	Dist Guitar
32	Harmonics
33	AcousticBass
34	E. BassFinger
35	E. BassPicked
36	FretlessBass
37	Slap Bass 1
38	Slap Bass 2
39	Syn. Bass 1
40	Syn. Bass 2
41	Violin 1
42	Viola
43	Cello 1

No.	Timbre Name
44	Contrabass 1
45	Tremolo Str.
46	Harp Attack
47	Orche. Harp 1
48	Timpani 1
49	Strings Ens.
50	Strings Slow
51	Syn. Strings1
52	Syn. Strings2
53	Choir Aahs
54	Voice Oohs
55	SynVox
56	Orhe Hit
57	Trumpet
58	Trombone
59	Tuba 1
60	Mute Trumpet
61	FrenchHorn 1
62	BrassSection
63	Syn. Brass 1
64	Syn. Brass 2
65	Soprano Sax
66	Alto Sax
67	Tenor Sax
68	Baritone Sax
69	Oboe 1
70	Engl Horn
71	Bassoon 1
72	Clarinet 1
73	Piccolo
74	Flute
75	Recorder
76	Panpipes
77	Bottle Blow
78	Shakuhachi
79	Whistle
80	Ocarina
81	Synth Lead 1
82	Synth Lead 2
83	Synth Lead 3
84	Synth Lead 4
85	Synth Lead 5
86	Synth Lead 6

## Timbre 1 - 128

No.	Timbre Name
87	Synth Lead 7
88	Synth Lead 8
89	Synth Pad 1
90	Synth Pad 2
91	Synth Pad 3
92	Synth Pad 4
93	Synth Pad 5
94	Synth Pad 6
95	Synth Pad 7
96	Synth Pad 8
97	Synth SFX 1
98	Synth SFX 2
99	Synth SFX 3
100	Synth SFX 4
101	Synth SFX 5
102	Synth SFX 6
103	Synth SFX 7
104	Synth SFX 8
105	Sitar
106	Banjo
107	Shamisen
108	Koto
109	Kalimba
110	Bagpipes
111	Kokyu
112	Shanai
113	Tinkle Bell
114	Agogo
115	SteelDrums 1
116	WoodBlock 1
117	Taiko
118	Melodic Tom
119	Synth Drum
120	ReverseCymb1
121	Gt. fretNOISE
122	Fl. fretNOISE
123	Sea Shore
124	Bird Tweet
125	Telephone
126	Helicopter
127	Applause
128	Gun Shot

## Timbre Bank 6 (Multi (C) )

Timbre 1 – 128

No.	Timbre Name
1	Piano 1
2	Piano 2
3	Piano 3
4	Honkytonk
5	E. Piano 1
6	E. Piano 2
7	Harpsichord
8	Clav.
9	Celesta
10	Glockenspiel
11	Music Box
12	Vibraphone
13	Marimba
14	Xylophone
15	Tublar Bells
16	Church Bell
17	Elec. Organ 1
18	Elec. Organ 2
19	Elec. Organ 3
20	Church Organ
21	Reed Organ
22	Accordion
23	Harmonica
24	Bandneon
25	A. Nyl Guitar
26	A. Stl Guitar
27	E. JazzGuitar
28	E. ClenGuitar
29	E. GuitarMute2 *
30	O. D. Guitar 2 *
31	Dist Guitar
32	Harmonics
33	AcousticBass
34	E. BassFinger
35	E. BassPicked
36	FretlessBass
37	Slap Bass 1
38	Slap Bass 2
39	Syn. Bass 3
40	Syn. Bass 4
41	Violin 2 *
42	Viola
43	Cello 2 *

No.	Timbre Name
44	Contrabass 2 *
45	Tremolo Str.
46	Pizz'ed Str. *
47	Orche. Harp 2 *
48	Timpani 2 *
49	Strings Ens.
50	Strings Slow
51	Syn. Strings1
52	Syn. Strings2
53	Choir Aahs
54	Voice Oohs
55	SynVox
56	Orhe Hit
57	Trumpet
58	Trombone
59	Tuba 2 *
60	Mute Trumpet
61	FrenchHorn 2 *
62	BrassSection
63	Syn. Brass 1
64	Syn. Brass 2
65	Soprano Sax
66	Alto Sax
67	Tenor Sax
68	Baritone Sax
69	Oboe 2 *
70	Engl Horn
71	Bassoon 2 *
72	Clarinet 2 *
73	Piccolo
74	Flute
75	Recorder
76	Panpipes
77	Bottle Blow
78	Shakuhachi
79	Whistle
80	Ocarina
81	Synth Lead 1
82	Synth Lead 2
83	Synth Lead 3
84	Synth Lead 4
85	Synth Lead 5
86	Synth Lead 6

No.	Timbre Name
87	Synth Lead 7
88	Synth Lead 8
89	Synth Pad 1
90	Synth Pad 2
91	Synth Pad 3
92	Synth Pad 4
93	Synth Pad 5
94	Synth Pad 6
95	Synth Pad 7
96	Synth Pad 8
97	Synth SFX 1
98	Synth SFX 2
99	Synth SFX 3
100	Synth SFX 4
101	Synth SFX 5
102	Synth SFX 6
103	Synth SFX 7
104	Synth SFX 8
105	Sitar
106	Banjo
107	Shamisen
108	Koto
109	Kalimba
110	Bagpipes
111	Kokyu
112	Shanai
113	Tinkle Bell *
114	Agogo
115	SteelDrums 2 *
116	WoodBlocks 2 *
117	Taiko
118	Melodic Tom
119	Synth Drum
120	ReverseCymb
121	Gt. fretNOISE
122	Fl. bretNOISE
123	Sea Shore
124	Bird Tweet
125	Telephone
126	Helicopter
127	Applause
128	Gun Shot

\* Insert the PCM card of SN - MV30 - 01 and 02 (U - 31).

## Timbre Bank 7 (MT - 32 (I))

No.	Timbre Name
1	Acou Piano 1
2	Acou Piano 2
3	Acou Piano 3
4	Elec Piano 1
5	Elec Piano 2
6	Elec Piano 3
7	Elec Piano 4
8	Honkytonk
9	Elec Org 1
10	Elec Org 2
11	Elec Org 3
12	Elec Org 4
13	Pipe Org 1
14	Pipe Org 2
15	Pipe Org 3
16	Accordion
17	Harpsi 1
18	Harpsi 2
19	Harpsi 3
20	Clavi 1
21	Clavi 2
22	Clavi 3
23	Celesta 1
24	Celesta 2
25	Syn Brass 1
26	Syn Brass 2
27	Syn Brass 3
28	Syn Brass 4
29	Syn Bass 1
30	Syn Bass 2
31	Syn Bass 3
32	Syn Bass 4
33	Fantasy
34	Harmo Pan
35	Chorale
36	Glasses
37	Soundtrack
38	Atomosphere
39	Warm Bell
40	Funny Vox
41	Echo Bell
42	Ice Rain
43	Oboe 2001

No.	Timbre Name
44	Echo Pan
45	Doctor Solo
46	Schooldaze
47	Bell Singer
48	Square Wave
49	Str Sect 1
50	Str Sect 2
51	Str Sect 3
52	Pizzicato
53	Violin 1
54	Violin 2
55	Cello 1
56	Cello 2
57	Contrabass
58	Harp 1
59	Harp 2
60	Guitar 1
61	Guitar 2
62	Elec Gtr 1
63	Elec Gtr 2
64	Sitar
65	Acou Bass 1
66	Acou Bass 2
67	Elec Bass 1
68	Elec Bass 2
69	Slap Bass 1
70	Slap Bass 2
71	Fretless 1
72	Fretless 2
73	Flute 1
74	Flute 2
75	Piccolo 1
76	Piccolo 2
77	Recorder
78	Panpipes
79	Sax 1
80	Sax 2
81	Sax 3
82	Sax 4
83	Clarinet 1
84	Clarinet 2
85	Oboe
86	Engl Horn

## Timbre 1 - 128

No.	Timbre Name
87	Bassoon
88	Harmonica
89	Trumpet 1
90	Trumpet 2
91	Trombone 1
92	Trombone 2
93	Fr Horn 1
94	Fr Horn 2
95	Tuba
96	Brs Sect 1
97	Brs Sect 2
98	Vibe 1
99	Vibe 2
100	Syn Mallet
101	Wind Bell
102	Glock
103	Tube Bell
104	Xylophone
105	Marimba
106	Koto
107	Sho
108	Shakuhachi
109	Whistle 1
110	Whistle 2
111	Bottle Blow
112	Breath Pipe
113	Timpani
114	Melodic Tom
115	Deep Snare
116	Elec Perc 1
117	Elec Perc 2
118	Taiko
119	Taiko Rim
120	Cymbal
121	Castanets
122	Triangle
123	Orche Hit
124	Telephone
125	Bird Tweet
126	One Note Jam
127	Water Bells
128	Jungle Tune

## Timbre Bank 8 (MT - 32 (C))

Timbre 1 - 128

No.	Timbre Name
1	Acou Piano 1
2	Acou Piano 2
3	Acou Piano 3
4	Elec Piano 1
5	Elec Piano 2
6	Elec Piano 3
7	Elec Piano 4
8	Honkytonk
9	Elec Org 1
10	Elec Org 2
11	Elec Org 3
12	Elec Org 4
13	Pipe Org 1
14	Pipe Org 2
15	Pipe Org 3
16	Accordion
17	Harpsi 1
18	Harpsi 2
19	Harpsi 3
20	Clavi 1
21	Clavi 2
22	Clavi 3
23	Celesta 1
24	Celesta 2
25	Syn Brass 1
26	Syn Brass 2
27	Syn Brass 3
28	Syn Brass 4
29	Syn Bass 1 *
30	Syn Bass 2 *
31	Syn Bass 3
32	Syn Bass 4
33	Fantasy
34	Harmo Pan
35	Chorale
36	Glasses
37	Soundtrack
38	Atomosphere
39	Warm Bell
40	Funny Vox
41	Echo Bell
42	Ice Rain
43	Oboe 2001

No.	Timbre Name
44	Echo Pan
45	Doctor Solo
46	Schooldaze
47	Bell Singer
48	Square Wave
49	Str Sect 1
50	Str Sect 2
51	Str Sect 3
52	Pizzicato *
53	Violin 1 *
54	Violin 2 *
55	Cello 1 *
56	Cello 2 *
57	Contrabass *
58	Harp 1 *
59	Harp 2 *
60	Guitar 1
61	Guitar 2
62	Elec Gtr 1 *
63	Elec Gtr 2
64	Sitar
65	Acou Bass 1
66	Acou Bass 2
67	Elec Bass 1
68	Elec Bass 2
69	Slap Bass 1
70	Slap Bass 2
71	Fretless 1
72	Fretless 2
73	Flute 1
74	Flute 2
75	Piccolo 1
76	Piccolo 2
77	Recorder
78	Panpipes
79	Sax 1
80	Sax 2
81	Sax 3
82	Sax 4
83	Clarinet 1 *
84	Clarinet 2 *
85	Oboe 1 *
86	Engl Horn

No.	Timbre Name
87	Bassoon *
88	Harmonica
89	Trumpet 1
90	Trumpet 2
91	Trombone 1
92	Trombone 2
93	Fr Horn 1 *
94	Fr Horn 2 *
95	Tuba *
96	Brs Sect 1
97	Brs Sect 2
98	Vibe 1
99	Vibe 2
100	Syn Mallet
101	Wind Bell
102	Glock
103	Tube Bell
104	Xylophone
105	Marimba
106	Koto
107	Sho
108	Shakuhachi
109	Whistle 1
110	Whistle 2
111	Bottle Blow
112	Breath Pipe
113	Timpani 1 *
114	Melodic Tom
115	Deep Snare
116	Elec Perc 1 *
117	Elec Perc 2
118	Taiko
119	Taiko Rim
120	Cymbal
121	Castanets *
122	Triangle *
123	Orche Hit
124	Telephone
125	Bird Tweet
126	One Note Jam
127	Water Bells
128	Jungle Tune

\*Insert the PCM card of SN - MV30 - 01 and 02 (U - 31).

# Timbre Bank 5, 6, 7, 8

## Rhythm Timbre (Drum)

	Note No.	Tone Name	Tone Media	Tone No.	Source Key
	35	KICK 1	INT3	6	A 3
	36	KICK 2	INT3	7	A 3
C2	37	SIDE STICK	INT3	16	C 4
	38	SNAREDRUM5	INT3	5	C 4
	39	CLAPS	INT3	19	C 4
	40	SNAREDRUM3	INT3	3	C 4
	41	TOM 1	INT3	10	A # 3
	42	HI - HAT	INT3	12	C 4
	43	TOM 2	INT3	11	C # 4
	44	HI - HAT	INT3	12	C 4
	45	TOM 1	INT3	10	D 4
	46	HI - HAT	INT3	12	C 4
	47	TOM 2	INT3	11	F 4
C3	48	TOM 1	INT3	10	F 4
	49	CRASH CYM	INT3	14	C 4
	50	TOM 2	INT3	11	G # 4
	51	RIDE BELL	INT3	15	C 4
	52	CHINA CYM	INT3	13	C 4
	53	RIDE BELL	INT3	15	C 4
	54	TAMBOURINE	U - 31	35	F 5
	55	STICKS	INT3	17	C 4
	56	COWBELL	INT3	20	C 4
	57	CRASH CYM	INT3	14	C 4
	58	SNAREDRUM4	INT3	4	A # 3
	59	CRASH CYM	INT3	14	C 4
C4	60	BONGO 3	U - 31	31	C 4
	61	BONGO 1	U - 31	29	D # 4
	62	CONGA 3	U - 31	27	C # 5
	63	CONGA 2	U - 31	26	C # 5
	64	CONGA 4	U - 31	28	E 4
	65	TIMBALE 1	U - 31	33	F 4
	66	TIMBALE 2	U - 31	34	D 4
	67	AGOGO	INT3	27	D 6
	68	AGOGO	INT3	27	B 5
	69	CABASA	INT3	18	C 4
	70	MARACAS	U - 31	42	F # 5
	71	WHISTLE	U - 31	37	B 5
C5	72	WHISTLE	U - 31	37	B 5
	73	VIBRASLAP	U - 31	40	E 5
	74	(LATIN 1)	(U - 02)	(1)	(D 5)
	75	CLAVES	U - 31	32	C # 6
	76	GUIRO 2	U - 31	45	C 5
	77	GUIRO 1	U - 31	45	C 5
	78	CASTANET	U - 31	41	D 5
	79	CONGA 4	U - 31	28	C # 4
	80	TRIANGLE	U - 31	38	F # 6
	81	CONGA 4	U - 31	28	A 3
	82	WOOD BLOCK	U - 31	36	D # 5
	83	JINGLEBELL	U - 31	39	D # 5
C6	84	KICK 3	INT3	8	C 4
	85	KICK 4	INT3	9	C 4
	86	SNAREDRUM1	INT3	1	C 4
	87	SNAREDRUM2	INT3	2	C 4
	88	SNAREDRUM4	INT3	4	C 4
	89	ELEC TOM	INT3	24	C 4
	90	808 HI - HAT	INT3	22	C 4
	91	ELEC TOM	INT3	24	C 4
	92	808 HI - HAT	INT3	22	C 4
	93	ELEC TOM	INT3	24	C 4
	94	808 HI - HAT	INT3	22	C 4
	95	808 SNARE	INT3	21	C 4
C7	96	808 TOM	INT3	23	C 4
	97	808 CLAVES	INT3	25	C 4
	98	808 TOM	INT3	23	C 4

\* Insert the PCM card of SN - MV30 - 01 (U - 31).

# Roland Exclusive Messages

## 1 Data Format for Exclusive Messages

Roland's MIDI implementation uses the following data format for all exclusive messages (type IV):

Byte	Description
FOH	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
CMD	Command ID
[BODY]	Main data
F7H	End of exclusive

### = MIDI status : FOH, F7H

An exclusive message must be flanked by a pair of status codes, starting with a Manufacturer-ID immediately after FOH (MIDI version 1.0).

### = Manufacturer ID : 41H

The Manufacturer-ID identifies the manufacturer of a MIDI instrument that triggers an exclusive message. Value 41H represents Roland's Manufacturer-ID.

### = Device ID : DEV

The Device-ID contains a unique value that identifies the individual device in the multiple implementation of MIDI instruments. It is usually set to 00H - 0FH, a value smaller by one than that of a basic channel, but value 00H - 1FH may be used for a device with multiple basic channels.

### = Model ID : MDL

The Model-ID contains a value that uniquely identifies one model from another. Different models, however, may share an identical Model-ID if they handle similar data.

The Model-ID format may contain 00H in one or more places to provide an extended data field. The following are examples of valid Model-IDs, each representing a unique model:

01H  
02H  
03H  
00H, 01H  
00H, 02H  
00H, 00H, 01H

### = Command ID : CMD

The Command-ID indicates the function of an exclusive message. The Command-ID format may contain 00H in one or more places to provide an extended data field. The following are examples of valid Command-IDs, each representing a unique function:

01H  
02H  
03H  
00H, 01H  
00H, 02H  
00H, 00H, 01H

### = Main data : BODY

This field contains a message to be exchanged across an interface. The exact data size and contents will vary with the Model-ID and Command-ID.

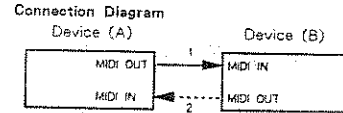
## 2 Address-mapped Data Transfer

Address mapping is a technique for transferring messages conforming to the data format given in Section 1. It assigns a series of memory-resident records-waveform and tone data, switch status, and parameters, for example-to specific locations in a machine-dependent address space, thereby allowing access to data residing at the address a message specifies.

Address-mapped data transfer is therefore independent of models and data categories. This technique allows use of two different transfer procedures: one-way transfer and handshake transfer.

### = One-way transfer procedure (See Section 3 for details.)

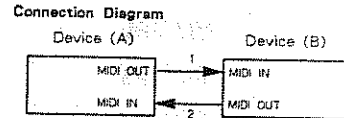
This procedure is suited for the transfer of a small amount of data. It sends out an exclusive message completely independent of a receiving device status.



Connection at point 2 is essential for "Request data" procedures. (See Section 3.)

### = Handshake transfer procedure (See Section 4 for details.)

This procedure initiates a predetermined transfer sequence (handshaking) across the interface before data transfer takes place. Handshaking ensures that reliability and transfer speed are high enough to handle a large amount of data.



Connection at points 1 and 2 is essential.

### Notes on the above two procedures

- \* There are separate Command-IDs for different transfer procedures.
- \* Devices A and B cannot exchange data unless they use the same transfer procedure, share identical Device-ID and Model ID, and are ready for communication.

## 3 One-way Transfer Procedure

This procedure sends out data all the way until it stops and is used when the messages are so short that answerbacks need not be checked. For long messages, however, the receiving device must acquire each message in time with the transfer sequence, which inserts intervals of at least 20 milliseconds in between.

### Types of Messages

Message	Command ID
Request data 1	RQ1 (11H)
Data set 1	DT1 (12H)

### = Request data #1 : RQ1 (11H)

This message is sent out when there is a need to acquire data from a device at the other end of the interface. It contains data for the address and size that specify designation and length, respectively, of data required.

On receiving an RQ1 message, the remote device checks its memory for the data address and size that satisfy the request.

If it finds them and is ready for communication, the device will transmit a "Data set 1 (DT1)" message, which contains the requested data. Otherwise, the device will send out nothing.

Byte	Description
FOH	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
11H	Command ID
aaH	Address MSB
⋮	⋮
⋮	⋮
⋮	⋮
⋮	LSB
ssH	Size MSB
⋮	⋮
⋮	⋮
⋮	LSB
sum	Check sum
F7H	End of exclusive



- \* The size of the requested data does not indicate the number of bytes that will make up a DT1 message, but represents the address fields where the requested data resides.
- \* Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
- \* The same number of bytes comprises address and size data, which, however, vary with the Model-ID.
- \* The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

**= Data set 1 : DT1 (12H)**

This message corresponds to the actual data transfer process. Because every byte in the data is assigned a unique address, a DT1 message can convey the starting address of one or more data as well as a series of data formatted in an address dependent order.

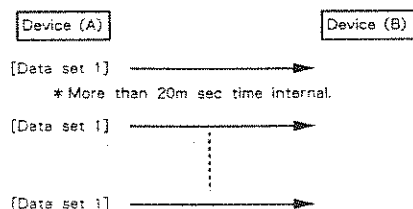
The MIDI standards inhibit non-real time messages from interrupting an exclusive one. This fact is inconvenient for the devices that support a "soft-through" mechanism. To maintain compatibility with such devices, Roland has limited the DT1 to 256 bytes so that an excessively long message is sent out in separate segments.

Byte	Description
F0H	Exclusive
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
12H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
ddH	Data
⋮	⋮
sum	Check sum
F7H	End of exclusive

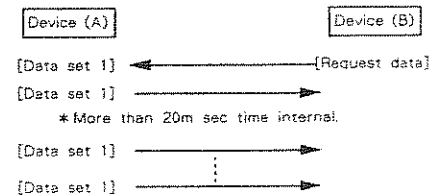
- \* A DT1 message is capable of providing only the valid data among those specified by an RQ1 message.
- \* Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
- \* The number of bytes comprising address data varies from one Model-ID to another.
- \* The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

**= Example of Message Transactions**

- Device A sending data to Device B  
Transfer of a DT1 message is all that takes place.



- Device B requesting data from Device A  
Device B sends an RQ1 message to Device A. Checking the message, Device A sends a DT1 message back to Device B.



**4 Handshake Transfer Procedure**

Handshaking is an interactive process where two devices exchange error checking signals before a message transaction takes place, thereby increasing data reliability. Unlike one-way transfer that inserts a pause between message transactions, handshake transfer allows much speedier transactions because data transfer starts once the receiving device returns a ready signal.

When it comes to handling large amounts of data-sampler waveforms and synthesizer tones over the entire range, for example across a MIDI interface, handshaking transfer is more efficient than one-way transfer.

**Types of Messages**

Message	Command ID
Want to send data	WSD (40H)
Request data	RQD (41H)
Data set	DAT (42H)
Acknowledge	ACK (43H)
End of data	EOD (45H)
Communication error	ERR (4EH)
Rejection	RJC (4FH)

**= Want to send data : WSD (40H)**

This message is sent out when data must be sent to a device at the other end of the interface. It contains data for the address and size that specify designation and length, respectively, of the data to be sent.

On receiving a WSD message, the remote device checks its memory for the specified data address and size which will satisfy the request. If it finds them and is ready for communication, the device will return an "Acknowledge (ACK)" message.

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
40H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
ssH	Size MSB
⋮	⋮
	LSB
sum	Check sum
F7H	End of exclusive

Otherwise, it will return a "Rejection (RJC)" message.

- \* The size of the data to be sent does not indicate the number of bytes that make up a "Data set (DAT)" message, but represents the address fields where the data should reside.
- \* Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
- \* The same number of bytes comprises address and size data, which, however, vary with the Model-ID.
- \* The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

**= Request data : RQD (41H)**

This message is sent out when there is a need to acquire data from a device at the other end of the interface. It contains data for the address and size that specify designation and length, respectively, of data required.

On receiving an RQD message, the remote device checks its memory for the data address and size which satisfy the request. If it finds them and is ready for communication, the device will transmit a "Data set (DAT)" message, which contains the requested data. Otherwise, it will return a "Rejection (RJC)" message.

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
41H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
saH	Size MSB
⋮	⋮
	LSB
sum	Check sum
F7H	End of exclusive

- \* The size of the requested data does not indicate the number of bytes that make up a "Data set (DAT)" message, but represents the address fields where the requested data resides.
- \* Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
- \* The same number of bytes comprises address and size data, which, however, vary with the Model ID.
- \* The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

**= Data set : DAT (42H)**

This message corresponds to the actual data transfer process. Because every byte in the data is assigned a unique address, the message can convey the starting address of one or more data as well as a series of data formatted in an address-dependent order.

Although the MIDI standards inhibit non-real time messages from interrupting an exclusive one, some devices support a "soft-through" mechanism for such interrupts. To maintain compatibility with such devices, Roland has limited the DAT to 256 bytes so that an excessively long message is sent out in separate segments.

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
42H	Command ID
aaH	Address MSB
⋮	⋮
	LSB
ddH	Data
⋮	⋮
sum	Check sum
F7H	End of exclusive

- \* A DAT message is capable of providing only the valid data among those specified by an RQD or WSD message.
- \* Some models are subject to limitations in data format used for a single transaction. Requested data, for example, may have a limit in length or must be divided into predetermined address fields before it is exchanged across the interface.
- \* The number of bytes comprising address data varies from one model ID to another.
- \* The error checking process uses a checksum that provides a bit pattern where the least significant 7 bits are zero when values for an address, size, and that checksum are summed.

**= Acknowledge : ACK (43H)**

This message is sent out when no error was detected on reception of a WSD, DAT, "End of data (EOD)", or some other message and a requested setup or action is complete. Unless it receives an ACK message, the device at the other end will not proceed to the next operation.

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
43H	Command ID
F7H	End of exclusive

**= End of data : EOD (45H)**

This message is sent out to inform a remote device of the end of a message. Communication, however, will not come to an end unless the remote device returns an ACK message even though an EOD message was transmitted.

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
45H	Command ID
F7H	End of exclusive

**= Communications error : ERR (4EH)**

This message warns the remote device of a communications fault encountered during message transmission due, for example, to a checksum error. An ERR message may be replaced with a "Rejection (RJC)" one, which terminates the current message transaction in midstream.

When it receives an ERR message, the sending device may either attempt to send out the last message a second time or terminate communication by sending out an RJC message.

Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
4EH	Command ID
F7H	End of exclusive

**= Rejection : RJC (4FH)**

This message is sent out when there is a need to terminate communication by overriding the current message. An RJC message will be triggered when:

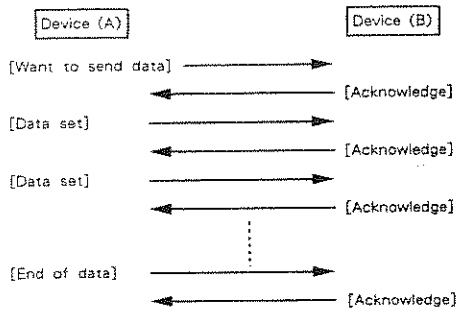
- a WSD or RQD message has specified an illegal data address or size.
- the device is not ready for communication.
- an illegal number of addresses or data has been detected.
- data transfer has been terminated by an operator.
- a communications error has occurred.

An ERR message may be sent out by a device on either side of the interface. Communication must be terminated immediately when either side triggers an ERR message.

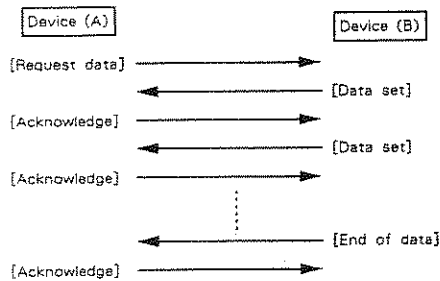
Byte	Description
F0H	Exclusive status
41H	Manufacturer ID (Roland)
DEV	Device ID
MDL	Model ID
4FH	Command ID
F7H	End of exclusive

### Example of Message Transactions

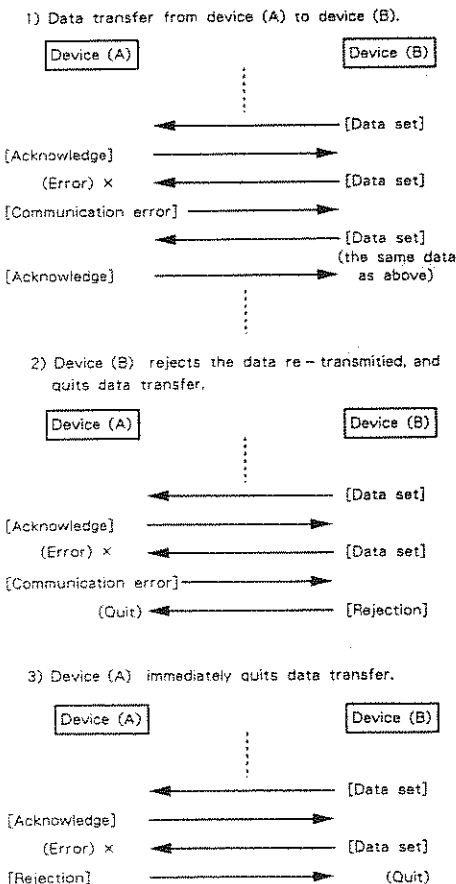
● Data transfer from device (A) to device (B).



● Device (A) requests and receives data from device (B).



● Error occurs while device (A) is receiving data from device (B).



## About MV-30 Exclusive Messages

On the MV-30, transmission and reception of Exclusive messages occurs only in the Sequencer section. The function is unavailable in the Sound section.

### Recording Exclusive Messages

Exclusive messages are recorded as song data. Perform the same operation as you would for recording tracks (9-16) when wishing to record Exclusive messages received at MIDI IN.

\* Put the Excl recording switch to "On".

### Transmitting the Exclusive messages you have recorded

Play back the relevant song in order to transmit Exclusive messages from MIDI OUT.

\* Set the EXT switch for the track to "On".

### Editing Exclusive messages

Exclusive messages can be edited in the Microscope screen. Calculation of the checksum can be performed when the manufacturer's ID is 41 (Roland). When successfully calculated, "Complete" is displayed, and the calculated value is automatically written into the last byte.

\* Take care whenever Exclusive messages are included inside song data, since the sound may at times not be produced normally.

**1. TRANSMITTED DATA (Sequencer section)**

1.1 All memorized messages are transmitted on Playing.

1.2 All received messages are transmitted when "Soft THRU" is ON.

1.3 Created message

■ System Common Message

● Song position pointer

Status	Second	Third
F2H	mmH	llH

ll,mm = Value : 00H,00H - 7FH,7FH 0 - 16383

\* When "Sync Out" switch is set to On.

● Song select

Status	Second
F3H	ssH

ss = Value : 00H - 13H 0 - 19

\* When "Sync Out" switch is set to On.

■ System Realtime Message

● Timing clock

Status
F8H

\* When "Sync Out" switch is set to On.

● Start

Status
FAH

\* When "Sync Out" switch is set to On.

● Continue

Status
FBH

\* When "Sync Out" switch is set to On.

● Stop

Status
FCH

\* When "Sync Out" switch is set to On.

● Active Sensing

Status
FEH

\* When "Sens Out" switch is set to On.

**2. RECOGNIZED DATA (Sequencer section)**

2.1 Memorized messages while in Recording mode.

■ Channel Voice Message

● Note off

Status	Second	Third
BnH	kkH	vvH
9nH	kkH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 kk = Note number : 00H - 7FH (0 - 127)  
 vv = Velocity : Ignored

● Note on

Status	Second	Third
9nH	kkH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 kk = Note number : 00H - 7FH (0 - 127)  
 vv = Velocity : 01H - 7FH (1 - 127)

● Polyphonic key pressure

Status	Second	Third
AnH	kkH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 kk = Note number : 00H - 7FH (0 - 127)  
 vv = Value : 00H - 7FH (0 - 127)

● Control change

Status	Second	Third
BnH	kkH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 kk = Control number : 00H - 7FH (0 - 127)  
 vv = Value : 00H - 7FH (0 - 127)

● Program change

Status	Second
CnH	ppH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 pp = Program number : 00H - 7FH (0 - 127)

● Channel pressure

Status	Second
DnH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 vv = Value : 00H - 7FH (0 - 127)

● Pitch bend change

Status	Second	Third
EnH	mmH	llH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 mm,ll = Value : 00H,00H - 7FH,7FH 0 - 16383 (-8192 - +8191)

■ Channel Mode Message

● Local On/Off

Status	Second	Third
BnH	7AH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 vv = Value : 00H - 7FH (0 - 127)

■ System Exclusive Message

Status	Data Byte
F0H	iiH,ddH,...eeH
F7H	

F0 : System Exclusive  
 ii = ID number : 00H - 7FH (0 - 127)  
 dd,...ee = Data : 00H - 7FH (0 - 127)  
 F7 : EOX (End of Exclusive)

## 2.2 Recognized only

### ■ Channel Mode Message

#### ● All Notes off

Status	Second	Third
BnH	7BH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\*When MV - 30 receives this message, it produces Note off message for received notes remains on.

#### ● OMNI OFF

Status	Second	Third
BnH	7CH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\* Recognized only as All Notes off.

#### ● OMNI ON

Status	Second	Third
BnH	7DH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\* Recognized only as All Notes off.

#### ● MONO

Status	Second	Third
BnH	7EH	mmH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
mm = Number of MIDI channel : ignored

\* Recognized only as All Notes off.

#### ● POLY

Status	Second	Third
BnH	7FH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\* Recognized only as All Notes off.

## 2.3 Recognized messages for sync.

\* When "Sync Clock" is set to MIDI.

### ■ System Common Message

#### ● Song position pointer

Status	Second	Third
F2H	mmH	llH

ll,mm = Value : 00H,00H - 7FH,7FH 0 - 16383

#### ● Song select

Status	Second
F3H	ssH

ss = Value : 00H - 13H 0 - 19

### ■ System Realtime Message

#### ● Timing clock

Status
FBH

#### ● Start

Status
FAH

#### ● Continue

Status
FBH

#### ● Stop

Status
FCH

## 2.4 Message received for detecting trouble in MIDI connection

### ■ System Realtime Message

#### ● Active sensing

Status
FEH

## 3. RECOGNIZED DATA (Internal voice section)

### ■ Channel Voice Message

#### ● Note off

Status	Second	Third
8nH	kkH	vvH
9nH	kkH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
kk = Note number : 00H - 7FH (0 - 127)  
vv = Velocity : ignored

#### ● Note on

Status	Second	Third
9nH	kkH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
kk = Note number : 00H - 7FH (0 - 127)  
vv = Velocity : 01H - 7FH (1 - 127)

#### ● Polyphonic key pressure

Status	Second	Third
AnH	kkH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
kk = Note number : 00H - 7FH (0 - 127)  
vv = Value : 00H - 7FH (0 - 127)

#### ● Control change

##### ○ Modulation depth

Status	Second	Third
BnH	01H	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
vv = Modulation depth : 00H - 7FH (0 - 127)

##### ○ Volume

Status	Second	Third
BnH	07H	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
vv = Volume : 00H - 7FH (0 - 127)

##### ○ Pan

Status	Second	Third
BnH	0AH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
vv = Pan : 00H - 7FH (0 - 127)

○ Hold 1

<u>Status</u>	<u>Second</u>	<u>Third</u>
BnH	40H	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 vv = 00H - 3FH (0 - 63) : Hold off  
 vv = 40H - 7FH (64 - 127) : Hold on

○ Reset all controllers

<u>Status</u>	<u>Second</u>	<u>Third</u>
BnH	79H	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

● Program change

<u>Status</u>	<u>Second</u>
CnH	ppH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 pp = Program number : 00H - 7FH (0 - 127)

● Channel pressure

<u>Status</u>	<u>Second</u>
DnH	vvH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 vv = Value : 00H - 7FH (0 - 127)

● Pitch bend change

<u>Status</u>	<u>Second</u>	<u>Third</u>
EnH	mmH	hh

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 mm, hh = Value : 00H, 00H - 7FH, 7FH 0 - 16383 (-8192 - +8191)

■ Channel Mode Message

● All Notes off

<u>Status</u>	<u>Second</u>	<u>Third</u>
BnH	7BH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\*When MV-30 receives this message, it produces Note off message for received notes remains on.

● OMNI OFF

<u>Status</u>	<u>Second</u>	<u>Third</u>
BnH	7CH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\* Recognized only as All Notes off.

● OMNI ON

<u>Status</u>	<u>Second</u>	<u>Third</u>
BnH	7DH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\* Recognized only as All Notes off.

● MONO

<u>Status</u>	<u>Second</u>	<u>Third</u>
BnH	7EH	mmH

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16  
 mm = Number of MIDI channel : ignored

\* Recognized only as All Notes off.

● POLY

<u>Status</u>	<u>Second</u>	<u>Third</u>
BnH	7FH	00H

n = MIDI channel number : 0H - FH (0 - 15) 0 = ch.1 15 = ch.16

\* Recognized only as All Notes off.

# MIDI Imprementation chart

Sequencer Section

Function ...		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	All Channel ×	All Channel 1 - 16	* 2
Mode	Default Messages Altered	Mode 3 × *****	× ×	
Note Number		0 - 127 *****	0 - 127 0 - 127	
Velocity	Note ON Note OFF	○ × 9n, v = 0	○ ×	v = 1 - 127
After Touch	Key's Ch's	○ ○	* 1 * 1	
Pitch Bender		○	* 1	
Control Change	0 - 121	○	* 1	
Prog Change	True #	○ *****	* 1 0 - 127	
System Exclusive		○	* 1	
System Common	Song Pos Song Sel Tune	○ ○ ○	○ (CLOCK = MIDI) ○ (CLOCK = MIDI) ○	
System Real Time	Clock Commands	* 1 * 1	○ (CLOCK = MIDI) ○ (CLOCK = MIDI)	
Aux Messages	Local ON/OFF All Notes OFF Active Sense Reset	○ × * 1 ×	○ ○ (123 - 127) ○ ×	
Notes		* 1 Can be set to ○ or × manually. * 2 Have no Basic Channel.		

Mode 1 : OMNI ON, POLY  
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO  
Mode 4 : OMNI OFF, MONO

○ : Yes  
× : No

# MIDI Implementation Chart

Internal Voice Section

Function ...		Transmitted	Recognized	Remarks
Basic Channel	Default	×	1 - 16 * 2	* 1
	Changed	×	1 - 16 * 2	
Mode	Default	×	Mode3	
	Messages	×	×	
	Altered	*****		
Note Number		×	0 - 127	
		*****	0 - 127	
Velocity	Note ON	×	○	v = 1 - 127
	Note OFF	×	×	
After Touch	Key's	×	○	
	Ch's	×	○1	
Pitch Bender		×	○	
Control Change	1	×	○	Internal voice section Modulation Volume Pan Hold 1
	7	×	○	
	10	×	○	
	64	×	○	
	121	×	○	Resets All Controllers
Prog Change	True #	×	0 - 127	
		*****	0 - 127	
System Exclusive		×	×	
System Common	Song Pos	×	×	
	Song Sel	×	×	
	Tune	×	×	
System Real Time	Clock	×	×	
	Commands	×	×	
Aux Messages	Local ON/OFF	×	×	
	All Notes OFF	×	○ (123 - 127)	
	Active Sense	×	×	
	Reset	×	×	
Notes		* 1 Can be memorized on disk. * 2 Can be set up to 8 different channels.		

Mode 1 : OMNI ON, POLY  
 Mode 3 : OMNI OFF, POLY  
 6 - 40

Mode 2 : OMNI ON, MONO  
 Mode 4 : OMNI OFF, MONO

○ : Yes  
 × : No



# SPECIFICATIONS

"Studio M" MV-30 Music Production System

## ● Memory

	Internal memory	Disk	
		With system	Without system
System program	○	○	—
System configuration	○	○	—
Number of song data steps	Approx 50,000 *	Approx 70,000	Approx 100,000
Number of songs	20 songs	64 songs	64 songs
Timbre Banks	1 bank	8 banks	8 banks
Chain load setting	1	1	1

\* Approx 120,000 when memory is expanded.

## ● Song data

Song length ..... 9,998 measures  
(9,999 is the end measure)  
Pattern length ..... 999 measures  
Number of patterns (in one track) ..... 999

## ● Tracks

Internal sound source tracks (no channels) ..... 8  
External sound source tracks (contain channels 1—16) ..... 8  
Tempo track ..... 1  
Mixer track ..... 1

● Timing resolution ..... 96 clocks per quarter note

## ● Tempo

Standard tempo ..... 10—250  
Tempo change ..... 5—500

● Time signature ..... 1/2—32/2, 1/4—32/4, 1/8—32/8,  
1/16—32/16

● Data entry methods ..... Realtime/step

● Maximum number of simultaneously input notes  
(during realtime recording) ..... 64 notes

● Maximum number of simultaneously output notes  
..... 128 (total of all tracks)

● Sound source ..... RS-PCM technology+TVF

● Maximum simultaneous notes sounded ..... 30 notes

● Timbre bank  
Timbres ..... 128  
Rhythm Timbre ..... 1

● Effect Patches ..... 5  
Chorus/flanger  
Reverb/delay

● Disk drive  
3.5 inch micro floppy disk drive (2DD)

● Display ..... 64 × 240 pixels (backlit LCD)

## ● Terminals

Mix output jacks (stereo)  
Direct output jacks (stereo) × 2  
MIDI connectors (IN, OUT, THRU)  
Tape Sync II jacks (Phono jacks)  
Input level ..... — 20—0 dBm  
Input impedance ..... 50k Ω  
Output level ..... — 10 dBm (50K Ω load)  
Output impedance ..... 1 less than 1k Ω  
(0 dBm = 0.775 Vrms)

Metronome output jack  
Foot switch jack  
AC adaptor jack (DC9V)

● Power supply ..... DC9V: AC adaptor

● Power consumption ..... 1.2 A

● Dimensions ..... 390 (width) × 310 (depth) × 77 (height) mm

● Weight ..... 3.46kg(not including AC adaptor or stand)

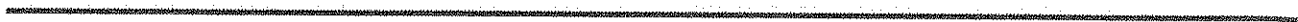
## ● Included items

AC adaptor, system/sample data disk × 1, quick start, owner's manual, cassette tape × 1, stand, connection cable (PJ-1M) × 1

## ● Optional items

Roland Sound Library PCM cards :SN-MV30 series, SN-U110 series, SN-SPLA series  
3.5 inch micro floppy disk (2DD) ..... MF-2DD  
Pedal switch ..... DP-2, FS-5U (BOSS)  
MIDI/SYNC cable ..... MSC series  
Stereo headphones ..... RH-12/100

\* Specifications and appearance of this product are subject to change without notice for improvement.



	1	1955-1956	...	...
	2	1957-1958	...	...
	3	1959-1960	...	...
	4	1961-1962	...	...
	5	1963-1964	...	...
	6	1965-1966	...	...
	7	1967-1968	...	...
	8	1969-1970	...	...
	9	1971-1972	...	...
	10	1973-1974	...	...
	11	1975-1976	...	...
	12	1977-1978	...	...
	13	1979-1980	...	...
	14	1981-1982	...	...
	15	1983-1984	...	...
	16	1985-1986	...	...
	17	1987-1988	...	...
	18	1989-1990	...	...
	19	1991-1992	...	...
	20	1993-1994	...	...
	21	1995-1996	...	...
	22	1997-1998	...	...
	23	1999-2000	...	...
	24	2001-2002	...	...
	25	2003-2004	...	...
	26	2005-2006	...	...
	27	2007-2008	...	...
	28	2009-2010	...	...
	29	2011-2012	...	...
	30	2013-2014	...	...
	31	2015-2016	...	...
	32	2017-2018	...	...
	33	2019-2020	...	...
	34	2021-2022	...	...
	35	2023-2024	...	...

# Information

●When you need repair service, call your local Roland Service Station or the authorized Roland distributor in your country as shown below.

## U. S. A.

Roland Corp US  
7200 Dominion Circle  
Los Angeles, CA. 90040 - 3647  
U. S. A.  
☎ (213)685 - 5141

## CANADA

Roland Canada Music Ltd.  
(Head Office)  
13880 Mayfield Place  
Richmond B. C., V6V 2E4  
CANADA  
☎ (604)270 - 6626

Roland Canada Music Ltd.  
9425 Transcanadienne  
Service Rd. N.,  
St Laurent, Quebec H4S 1V3  
CANADA  
☎ (514)335 - 2009

Roland Canada Music Ltd.  
346 Watline Avenue,  
Mississauga, Ontario L4Z 1X2  
CANADA  
☎ (416)890 - 6488

## AUSTRALIA

Roland Corporation  
(Australia)Pty. Ltd.  
(Head Office)  
38 Campbell Avenue  
Dee Why West. NSW 2099  
AUSTRALIA  
☎ (02)982 - 8266

Roland Corporation  
(Australia)Pty. Ltd.  
(Melbourne Office)  
50 Garden Street  
South Yarra, Victoria 3141  
AUSTRALIA  
☎ (03)241 - 1254

## NEW ZEALAND

Roland Corporation (NZ)Ltd.  
97 Mt. Eden Road, Mt. Eden,  
Auckland 3  
NEW ZEALAND  
☎ (09)398 - 715

## UNITED KINGDOM

Roland(UK)Ltd.  
Amalgamated Drive  
West Cross Centre, Brentford,  
Middlesex TW8 9EZ,  
UNITED KINGDOM  
☎ (81)568 - 4578

## GERMANY

Roland Elektronische  
Musikinstrumente  
Handelsgesellschaft mbH.  
Oststrasse 96,  
2000 Norderstedt  
GERMANY  
☎ 040/52 60 090

## BELGIUM/HOLLAND/ LUXEMBOURG

Roland Benelux N. V.  
Houtstraat 1  
B - 2431 Oevel - Westerlo  
BELGIUM  
☎ (0032)14 - 575811

## DENMARK

Roland Scandinavia as  
Langebrogade 6  
Box 1937  
DK - 1023 Copenhagen K.  
DENMARK  
☎ 31 - 95 31 11

## SWEDEN

Roland Scandinavia as  
DanvikCenter 28 A, 2 tr.  
S - 131 30 Nacka,  
SWEDEN  
☎ 08 - 702 00 20

## NORWAY

Roland Scandinavia  
Avd. Norge  
Lilleakerveien 2  
Postboks 95 Lilleaker  
N - 0216 Oslo 2  
NORWAY  
☎ 02 - 73 00 74

## FINLAND

Fazer Musik Inc.  
Länsituulentie  
POB 169  
SF - 02101 Espoo  
FINLAND  
☎ 0 - 43 50 11

## ITALY

Roland Italy S. p. A.  
Viale delle Industrie 8  
20020 ARESE MILANO  
ITALY  
☎ 02 - 93581311

## SPAIN

Roland Electronics  
de España, S. A.  
Bolivia 239  
08020 Barcelona  
SPAIN  
☎ 93 - 308 - 1000

## SWITZERLAND

Musitronic AG  
Gerberstrasse 5, CH - 4410  
Liestal  
SWITZERLAND  
☎ 061/921 16 15

Roland CK (Switzerland) AG  
Hauptstrasse 21/Postfach  
CH - 4456 Tenniken  
SWITZERLAND  
☎ 061/98 60 55  
Repair Service by Musitronic AG

## FRANCE

Musikengro  
102 Avenue Jean - Jaures  
69007 Lyon Cedex 07  
FRANCE  
☎ (7)858 - 54 60

Musikengro  
(Paris Office)  
Centre Region Parisienne  
41 rue Charles - Fourier,  
94400 Vitry s/Seine  
FRANCE  
☎ (1)4680 86 62

## AUSTRIA

E. Dematte & Co.  
Neu - Rum Siemens - Strasse 4  
A - 6021 Innsbruck Box 591  
AUSTRIA  
☎ 43(05222)63 451

## GREECE

V. Dimitriadis & Co. Ltd.  
2 Phidiou Str., GR 106 78  
Athens  
GREECE  
☎ 1 - 3620130

## PORTUGAL

Casa Caius Instrumentos  
Musicais Lda.  
Rua de Santa Catarina 131  
Porto  
PORTUGAL  
☎ 02 - 38 44 56

## HUNGARY

Intermusica Ltd.  
Warehouse Area 'DEPO'  
Budapest. P.O. Box 3,  
2045 Torokbalint  
HUNGARY  
☎ 1868905

## BRAZIL

Oliver do Brazil S.A.  
Instrumentos Musicais  
Av. Cecl. No.578  
Centro Empresarial  
Tambore - Barueri - SP.  
CEP - 06400  
BRAZIL  
☎ (011)709 - 1267

