Roland

MIDI REAL TIME RECORDER

SUPER-MRC

for MC-500MkII / MC-500 / MC-300

Owner's Manual

ADVANCED COURSE

CONTENTS

INTRODUCTION 7
HOW TO USE THIS OWNER'S MANUAL 7
ABOUT THE SIGNS IN THIS OWNER'S MANUAL 7
BASIC PROCEDURE 8
1. The five Modes of SUPER – MRC 8
2. How to Change Modes 10
3. The function of each Button 12
EXPLANATION OF TERMS 14

■ MODE 1 17

STANDBY 19

TRACK MUTE 22

RECORD 23
REAL TIME RECORDING 24
RECORD FIELD 26
REPLACE REC 28
MIX REC 30
AUTO PUNCH IN 32
MAN. PUNCH IN 33
REPLACE REC 34
STEP RECORDING 36
R – PTN RECORD 1 36
R – PTN RECORD 2 40
R – PATTERN COPY 42
R – PATTERN ERASE 43
R – TRACK RECORD 44

PLAY 47
PLAY 48
BLOCK REPEAT 50
TAPE SYNC SIGNAL OUTPUT 51
TAPE SYNC PLAY 52

AVAILABLE MEMORY 53
AVAILABLE MEMORY (INTERNAL) 54
AVAILABLE MEMORY (DISK) 55
LOAD CURRENT SONG 56
SAVE CURRENT SONG 57

LOCATE POINT 59
SET LOCATE POINT 60
CLEAR LOCATE POINT 62
JUMP TO LOCATE POINT 63

MIDI 65
MIDI 66
MIDI 1 RCV CHANNEL 67
MIDI 2 RCV STATUS 68
MIDI 3 XMT CONDITION 69

FUNC 71
FUNC 72
FUNC 1 SYNC CLOCK 73
FUNC 2 METRONOME 74
FUNC 3 SONG TITLE 76
FUNC 4 RHYTHM VELO 78
FUNC 5 RHYTHM INST 79
FUNC 6 PUNCH POINT 81
FUNC 7 BLOCK REPEAT 83
FUNC 8 AUTO STOP 85
FUNC 9 BASIC TEMPO 87
FUNC10 LOCATE POINT 88
FUNC11 OUTPUT ASSIGN 90
FUNC12 XMT CHANNEL 91
FUNC13 NOTE NAME 93
FUNC14 SONG LOG 94

EDIT 95
EDIT 96
EDIT 1 ERASE 98
EDIT 2 DELETE 100
EDIT 3 INSERT MEAS 102
EDIT 4 MERGE 103
EDIT 5 EXTRACT 104
EDIT 6 TRANSPOSE 106
EDIT 7 CHANGE VELO 108
EDIT 8 CHANGE M.CH 110
EDIT 9 QUANTIZE 112
EDIT10 COPY 114
EDIT11 CHANGE G.T. 116
EDIT12 SHIFT CLOCK 118
EDIT13 DATA THIN 120
EDIT14 TRK EXCHANGE 122
EDIT15 MULTI EDIT 123

MICROSCOPE 125
MICROSCOPE 126
MICROSCOPE VIEW FIELD 127
EVENT MEMORY 129
μ EDIT/S – EDIT 130

μ EDIT 1 CHANGE Event 132
μ EDIT 2 ERASE Event 133
μ EDIT 3 CREATE Event 134
μ EDIT 4 MOVE Event 135
μ EDIT 5 PLACE Event 136
S – EDIT 1 CHANGE STEP 137
S – EDIT 2 DELETE STEP 138
S – EDIT 3 INSERT STEP 139

UTIL 141
UTIL 142
UTIL 1 SONG DELETE 143
UTIL 2 TIME CALC 144
UTIL 3 FUNCTION COPY 145
UTIL 4 R – PTN COPY 146
UTIL 5 SONG EXCHANGE 147
UTIL 6 DATA CHECK 148
UTIL 7 DATA REDUCE 150
UTIL 8 TUNE 151

REAL TIME MODIFY 153
REAL TIME MODIFY 154
MODIFY FIELD 156
REWRITE VELOCITY 157
REWRITE STEP 158

■ MODE 2 159
MODE 2 DISK 160
1 LOAD 161
2 SAVE 163
3 DELETE 165
4 RENAME 166
5 VERIFY 167

■ MODE 3 169
MODE 3 LINK 170
LINK PROGRAM 171

■ MODE 4 173
MODE 4 DISK UTILITY 174
1 INITIALIZE 175
2 BACK UP 177
3 XFER 178
4 CONVERT 179
5 DISK NAME 180
6 RESTART 181

■ MODE 5 183
MODE 5 SYSTEM CONFIG 184
1 CHANGE CONFIG 185
CNFG 1 LOCATE MODE 186
CNFG 2 STEP/GATE 187
CNFG 3 GATE RATIO 189
CNFG 4 MIDI UPDATE 190
CNFG 5 REWRITE MODE 191
CNFG 6 MIDI CONTROL 192
CNFG 7 SETUP UPDATE 193
2 LOAD CONFIG 194
3 SAVE CONFIG 195
4 INIT CONFIG 196

Attention (Warning Indication) 197

ERROR (Error Messages) 202

MIDI Flow Chart 204

MIDI Implementation Chart 205

MIDI Implementation 206

Specification of the SUPER – MRC 210

Index 212

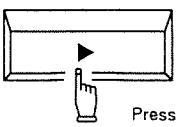
INTRODUCTION

■ HOW TO USE THIS OWNER'S MANUAL

This "Advanced Course" manual describes the SUPER－MRC functions. If you are not very familiar with sequencers, computers or MIDI, first read the "Basic Course" manual. The flow chart shown on page 11 can be used as a table of contents, as it refers to the page numbers. The "Advanced Course" describes each function as Procedure often followed by Additions, Notes and Reference.
This manual, and the "Basic Course", explain only the SOFTWARE, therefore, the manual of the relevant hardware must also be read.

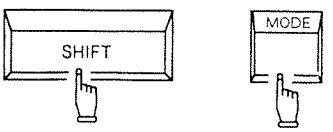
■ ABOUT THE SIGNS IN THIS OWNER'S MANUAL

●Words enclosed by [ ], such as [PLAY] and [RESET], refer to buttons which should be pushed once and released. That is, [PLAY] means that the PLAY button should be pushed once then released, and [RESET] means that the RESET button should be pushed once then released.



Press and release

●Buttons shaded in gray, such as [MODE], should be pressed while the SHIFT button is being held down. That is, [MODE] means that you should push the MODE button while holding the SHIFT button down. Please be sure to hold the SHIFT down first, then push the relevant button.



While holding down　　Press

●Buttons and arrows, such as [MIDI] → [2] → [ENTER], mean that these buttons should be pushed in that order, as the arrows indicate. That is, [MIDI] → [2] → [ENTER] means that you should push the MIDI button first, then the ten key 2, and finally the ENTER key.

■ BASIC PROCEDURE

1. The five Modes of the SUPER－MRC

This software has five modes which contain various functions.

● MODE 1 : MIDI RECORDER (Sequencer)

This mode turns the unit into a MIDI recorder (sequencer) with the following functions :

Recording ····· This records song data.
Play ····· This plays the recorded song data.
Function ····· This specifies the functions for recording, playback and editing.
MIDI ····· This sets how MIDI messages should be received and transmitted.
Edit ····· This allows you to edit data using bars or locate points.
Microscope ····· This allows you to check the contents of the song data in detail, and edit each event.
Available Memory · This lets you know the remaining space in the internal memory, or on a disk.
Locate ····· This allows you to set a locate point, or jump to the set locate point.
Utility ····· This allows you to use various utility functions.

● MODE 2 : DISK

This mode communicates song data between the internal memory and a disk, with the following functions :

Load ····· This loads the song files on a disk into the internal memory.
Save ····· This saves the song data in the internal memory onto a disk.
Delete ····· This deletes a song file on a disk.
Rename ····· This rewrites the song file names on a disk.
Verify ····· This verifies the song data in the internal memory with the song file on the disk.

● MODE 3 : SONG LINK

This mode allows you to link songs in the internal memory.

● MODE 4 : DISK UTILITY

This deals with data on a disk, with the following functions :

Initialize ····· This function makes a SUPER – MRC disk.
Backup ····· This copies the entire data from one disk onto another disk.

Transfer ····· This copies song files on a disk onto another disk.
Convert ····· This converts the song data programmed on MRC – 500 or MRC – 300, so that it can be used with SUPER – MRC.
Disk Name ····· This function allows you to name a disk.
Restart ····· This function loads the system program.

● MODE 5 : SYSTEM CONFIGURATION

This mode allows you to set parameters for system control (= system configuration), with the following functions. The values you have set will be automatically recalled when the system is booted up the next time.

Change Configuration ···· This changes the values of the configuration parameters in the internal memory.
Load Configuration ····· This loads the settings of the configuration parameters on a disk into the internal memory.
Save Configuration ····· This saves the settings of the configuration parameters in the internal memory onto a disk.
Initialize Configuration ··· This initializes (= returns to the original values) the settings of the configuration parameters in the internal memory.

2. How to Change Modes

The following describes how to change modes :

●To use the MODE 1 functions

①Make sure that the unit is in the stand – by condition (= the system is booted up) and push the relevant Function Button.

②Select the function to be edited.

When you use the [Alpha Dial], call the display of the desired function, then push the [ENTER].
When you use the [Ten Key Pad], select the number of the desired function, then push the [ENTER].

* To return to the stand – by condition, push [STOP].

●To use a different Mode

①From the stand – by condition, push [MODE] to call the Mode selection display.

②Select the Mode you want, then change to the Function selection display.

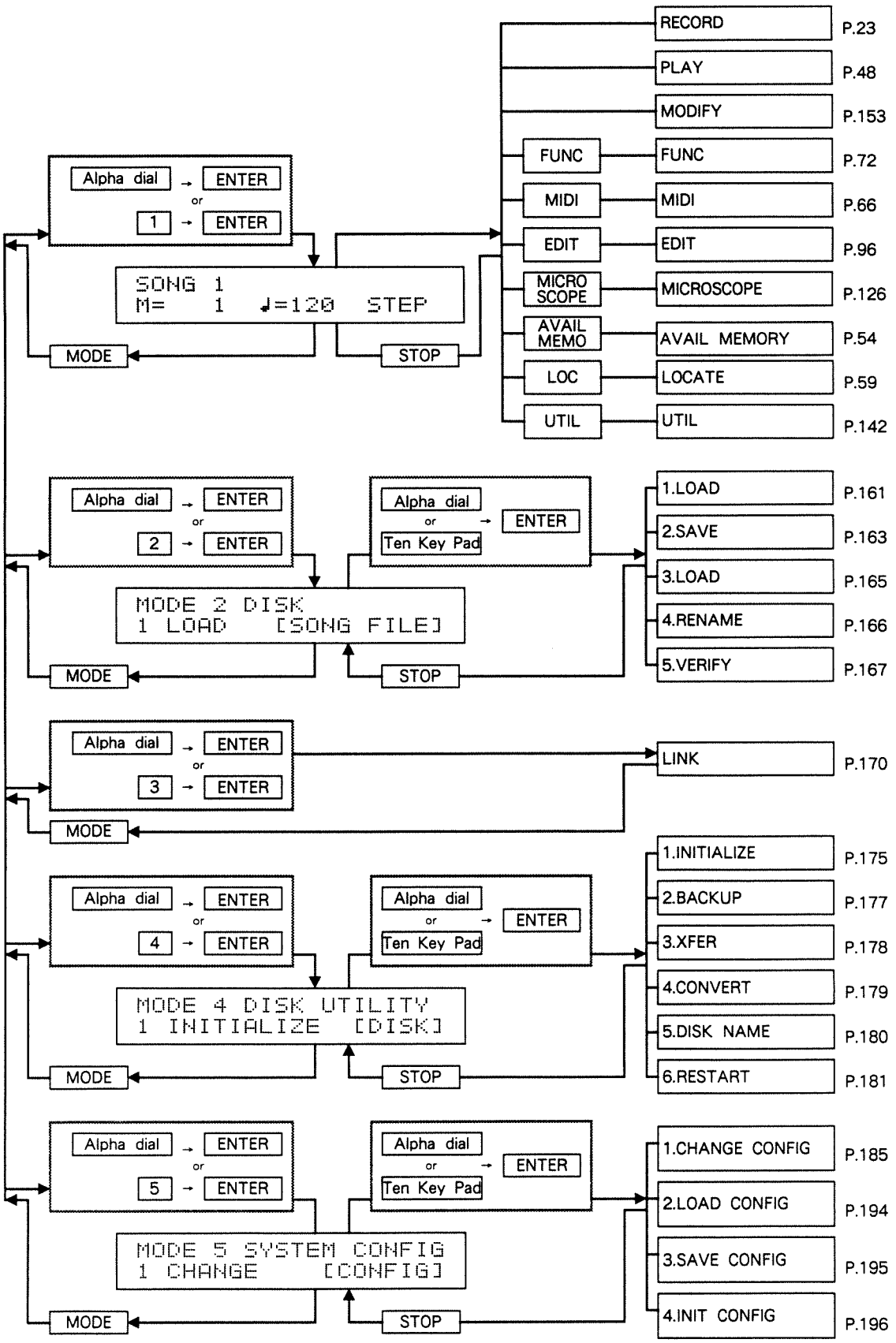
When you use the [Alpha Dial], change to the display of the Mode you want first, then push the [ENTER].
When you use the [Ten Key Pad], select the number of the function to be edited, then push the [ENTER].

③Select the function to be edited.

When you use the [Alpha Dial], select the display of the desired function, then push the [ENTER].
When you use the [Ten Key Pad], select the number of the desired function, then push the [ENTER].

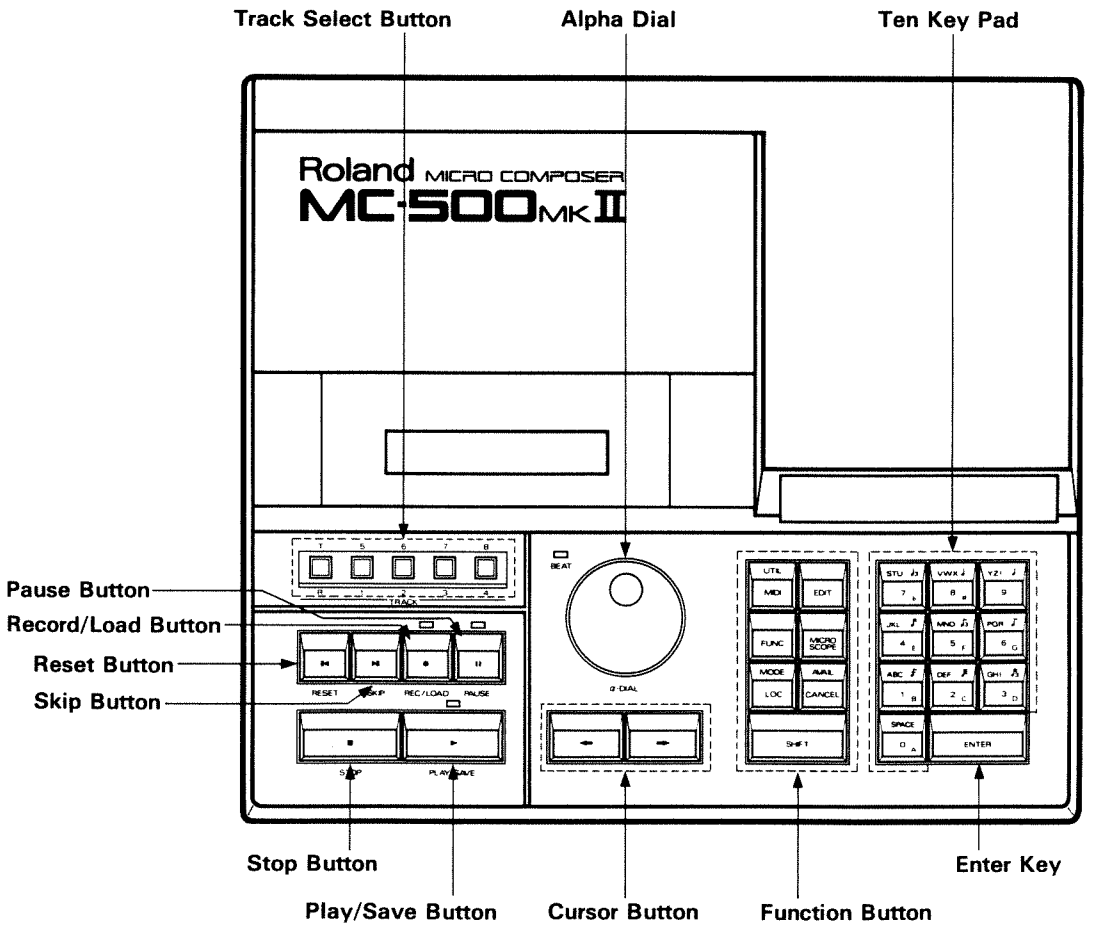
*To return to the stand – by condition, push [STOP].
To return to the Mode selection display, push [MODE].

*In any mode, you can check the remaining space of the internal memory or disk by pushing [AVAIL MEMO].


Alpha dial → ENTER
or
1 → ENTER
SONG 1
M= 1 ♩=120 STEP
MODE
STOP
RECORD P.23
PLAY P.48
MODIFY P.153
FUNC
FUNC P.72
MIDI
MIDI P.66
EDIT
EDIT P.96
MICRO SCOPE
MICROSCOPE P.126
AVAIL MEMO
AVAIL MEMORY P.54
LOC
LOCATE P.59
UTIL
UTIL P.142
Alpha dial → ENTER
or
2 → ENTER
Alpha dial
or
Ten Key Pad
→ ENTER
MODE 2 DISK
1 LOAD [SONG FILE]
MODE
STOP
1.LOAD P.161
2.SAVE P.163
3.LOAD P.165
4.RENAME P.166
5.VERIFY P.167
Alpha dial → ENTER
or
3 → ENTER
MODE
LINK P.170
Alpha dial → ENTER
or
4 → ENTER
Alpha dial
or
Ten Key Pad
→ ENTER
MODE 4 DISK UTILITY
1 INITIALIZE [DISK]
MODE
STOP
1.INITIALIZE P.175
2.BACKUP P.177
3.XFER P.178
4.CONVERT P.179
5.DISK NAME P.180
6.RESTART P.181
Alpha dial → ENTER
or
5 → ENTER
Alpha dial
or
Ten Key Pad
→ ENTER
MODE 5 SYSTEM CONFIG
1 CHANGE [CONFIG]
MODE
STOP
1.CHANGE CONFIG P.185
2.LOAD CONFIG P.194
3.SAVE CONFIG P.195
4.INIT CONFIG P.196

3. The function of each Button

The following describes how each button works.



● Alpha Dial and Ten Key Pad

To select a mode or enter a value, you can use the [Alpha Dial] or [Ten Key Pad].

When you use the [Ten Key Pad], push the number you want, then [ENTER]. Before [ENTER] is pushed, the value has not yet been entered, and the value and a "+" mark alternately lights. At this stage, the value will return to the original when a different parameter is selected, or when [CANCEL] is pushed.

When you use the [Alpha Dial], the value is normally entered without pushing [ENTER]. However, to select a mode or function, you must push [ENTER] after setting the mode or function with the [Alpha Dial]. Rotating the dial clockwise (counter clock, wise) increases (decreases) the value.

● Cursor Button and Enter Button

The flashing position (value or underline) in the display is called a cursor. The value of the cursor position can be changed by using the [Alpha Dial] or [Ten Key Pad]. The cursor position can be shifted by using [←] [→]. When there are many parameters to be edited in sequence, simply push [ENTER] after entering each value, and the cursor will be shifted to the next parameter. When using the [Ten Key Pad], if [ENTER] has not yet been pushed, the value will be erased by moving the cursor with [←] [→].

● Track Selector Buttons

By pushing one of the five Track Selector Buttons R/1 – 4, the rhythm track, or track 1, 2, 3 or 4 is selected. By pushing the same buttons while holding [SHIFT] down, the tempo track, or track 5, 6, 7 or 8 is selected.

During normal playback, assigning a track already recorded will mute the track (= no output from MIDI OUT). During recording or editing, the Track Selector Buttons can be used for assigning a track.

● Function Buttons

These buttons are basically used for selecting a function in MODE 1. In the Available Memory or Utility mode, push the relevant Function button while holding [SHIFT] down.

Using [MODE], you can return to the Mode selection condition from any mode. Using [AVAIL MEMO], you can return to the Available Memory mode from any mode.

■ EXPLANATION OF TERMS

● EVENT

Each message written as song data is called an event.(This is one line of message seen in the Microscope display.) Events include MIDI messages such as Note On, or Pitch Bend, and also "tempo change" within the tempo track.

● MIDI STATUS

A group of events is called MIDI status. In SUPER – MRC, there are eight MIDI statuses : note (NOTE), polyphonic aftertouch (PAf), control change (CC), program change (PG), channel aftertouch (CAf), pitch bend change (PB), system exclusive (EX) and tune request (TU). This classification is the same as for MIDI messages', so refer to the supplied booklet "Guidebook for MIDI" to learn about the functions of these MIDI statuses.

● SONG DATA

Performance data, and necessary functions which reside in the internal memory, are called song data. Each song data has a different number, therefore, you may put the same song title to more than one song data.

● SONG FILE

Song data saved on a disk is called a song file. Song files are distinguishedby file names (= song titles), therefore, two song files which have the same file name cannot be saved on a disk.

● PHRASE TRACK

A phrase track is where events (e.g. channel messages received through MIDI IN, system exclusive messages, etc.) are stored. There are eight phrase tracks in SUPER – MRC.

Each phrase track can store up to 16 independent compornents of 1 to 16 MIDI channels.

● RHYTHM PATTERN

A rhythm pattern is a bar of rhythm data. You can make a rhythm track using rhythm patterns. Each rhythm pattern has a different number, and you make a rhythm track by assigning the pattern numbers. Rhythm patterns can be created for each song individually.

There are 32 rhythm voices which can be used for making rhythm patterns. You must make the rhythm pattern for each rhythm voice individually.

● RHYTHM TRACK

The rhythm track can store one whole song of rhythm performance (rhythm patterns or rest patterns).

The length, and timing, of song data is determined by the rhythm patterns or rest patterns used in the rhythm track. (This is similar to writing timing signatures and bar lines.)

If a phrase track is recorded longer than the rhythm track, rest patterns will be automatically written.(This is similar to writing notes and bar lines at the same time.)

● TEMPO TRACK

The tempo track only stores tempo data. This track does not transmit messages that play MIDI sound modules.

● MEASURE, BEAT, CLOCK

These are the units to represent time in song data. A clock is the smallest unit : 1 clock is 1/96 of a quarter note. A beat is determined by the bottom number of the time signature in each rhythm pattern or rest pattern. For instance, one beat of 3/8 is equivalent to 48 clocks. Each measure (bar) is determined by the time signature. For example, one measure of 2/4 has 2 beats, that is 192 clocks (2 x 96).

● RESOLUTION

This is the shortest time unit that is used for step recording or quantization. For example, if the resolution for quantization is set to a sixteenth note (24 clocks), the timing is corrected in sixteenth note steps.

● STEP TIME

The time (number of clocks) needed to move from one event to another is called step time.

● GATE TIME

The time (number of clocks) needed from NOTE ON to NOTE OFF is called the gate time.

● SONG POSITION POINTER

This is the MIDI message that specifies the time within the song data, to communicate with another MIDI device. Song position pointer can be set in sixteenth note steps from 1 to just before 1024 bars (4/4 timing).

● LOCATE POINT

Location data (measure, beat, clock) can be written in memory as a locate point. Locate Points can be set regardless of the length of the song data, or the beat, and will not be affected by changing the song data later. Locate Points can be used not only for jumping to the set position, but also for assigning the section of data to be edited.

● MASTER/SLAVE in MIDI sync

Synchronization performed via MIDI messages is called MIDI sync. MIDI messages used for MIDI sync are Timing Clock, Start, Continue, Stop Song Position Pointer, Song Select, etc. The MIDI device that transmits these messages is called the master, and the one that receives is the slave. MIDI sync offers attractive functions, such as starting from the middle of song data.

● MASTER/SLAVE in Tape sync

Tape Sync is performed via sync signals recorded on a multi – track recorder (referred to as an MTR in this manual). The master device is an MTR and the slave is a sequencer. However, no sync signal exists on the MTR , therefore, you must record sync signals from the MC. Tape Sync can be effectively used when channels are short, to play all the MIDI sound sources at the same time. Tape sync is not as efficient as MIDI Sync ,e,g. , it cannot start or stop in the middle of song data.

MODE 1

STANDBY ····· 19
RECORD ····· 23
PLAY ····· 47
LOCATE POINT ····· 59
MIDI ····· 65
FUNC ····· 71
EDIT ····· 95
MICROSCOPE ····· 125
UTIL ····· 141
REALTIME MODIFY ····· 153

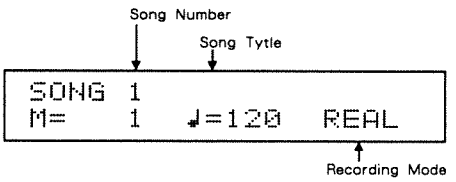
STANDBY

STANDBY 20
TRACK MUTE 22

STANDBY

Function — The main functions of SUPER – MRC (Recording, Play, Edit, Mircoscope,etc.) are all started from the stand – by condition of MODE 1.
SUPER – MRC defaults to this display.

Step 1 — Shifting the cursor



●In the stand – by condition of MODE 1, the position of the cursor (flashing) resides at a bar number.

●The cursor position can be shifted with [←] [→].

Step 2 — Assigning a bar number

① Move the cursor to the bar number :
[←] [→]

②Change the bar number :
[Alpha Dial] or [Ten Key] → [ENTER]

Step 3 — Specifying the tempo (temporary change)

① Move the cursor to the tempo position :
[←] [→]

②Change the tempo :
[Alpha Dial] or [Ten Key] → [ENTER]

Step 4 — Specifying a song number

① Move the cursor to the song number :
[←] [→]

②Change the song number :
[Alpha Dial] or [Ten Key] → [ENTER]

③To make a new song, assign the song number with : [Alpha Dial]
or [Ten Key Pad] → [ENTER]

Additions

★If the bar number is not located at a bar line, a "+" mark will be shown.

★No matter where the cursor resides, you can jump to the head of the song data (the first bar) with [RESET], jump to the end of the data with [SKIP], and increases or decreases a bar number with [PAUSE] + ([SKIP] / [RESET]).

★The tempo shown in the display ranges from 10 to 250. Any changes made here are temporary, and therefore can be reset to the basic tempo with [Alpha Dial] (rotate). Regarding the tempo setting in the song data, refer to Reference ☆1 and ☆2. The tempo for playback can be set from 5 to 500.

★No matter where the cursor resides, you can go to any existing song with [SKIP] / [RESET].

★If the sound keeps playing, press [STOP] + [MIDI].

★All the messages except for the Note messages can be transmitted at a high speed up to the bar number currently shown in the display. Press [PAUSE] + [MIDI].

```
SONG 1
M=  10  UPDATING
```

Note

★You cannot specify any bar number that does not exist in the data.

Reference

☆1. P.87 FUNC 9 BASIC TEMPO
☆2. P.34 REPLACE REC

TRACK MUTE

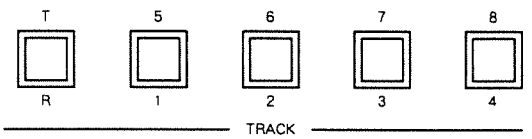
Function Any track can be muted (performance data is not transmitted).

Procedure

●Set the MC to the stand – by condition of MODE 1, play or record mode.

■Check if data exists in a track

When a track contains any data, the corresponding Track Select Button is lit. By using [SHIFT], the tempo track or tracks 5 – 8 can be checked.



Normal	Rhythm Track	Track 1	Track 2	Track 3	Track 4
Push SHIFT	Tempo Track	Track 5	Track 6	Track 7	Track 8

★To mute a track (Rhythm or 1 – 4 track) relevant [Track select] (the indicator goes out). To must a track (5 – 8) or the tempo track, press the relevant [Track Select] while holding [SHIFT] down.

Additions

★The Track Mute function is available only when data exists in the track.

★If a phrase track (1 – 8) or the rhythm track is muted, performance data is not transmilted from MIDI OUT.

★When the tempo track is muted, the tempo will not change. (The basic tempo shown in the display remains.

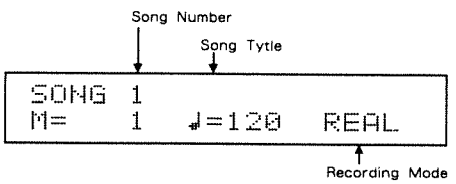
RECORD

REAL TIME RECORDING 24
RECORD FIELD 26
REPLACE REC 28
MIX REC 30
AUTO PUNTCH IN 32
MAN. PUNCH IN 33
REPLACE REC TEMPO 34
STEP RECORDING 36
R – PTN RECORD 1 38
R – PTN RECORD 2 40
R – TRK RECORD 44

REAL TIME RECORDING

Function MIDI messages received through MIDI IN are recorded in real – time.

Procedure First of all, prepare for Real – time Recording from the Stand – by condition of MODE 1 as follows :

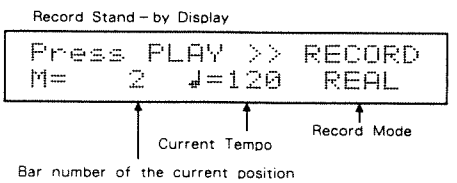


○Shift the cursor to "Record Mode", then specify "Real" :
([Alpha Dial] or [Ten Key]) → [ENTER] (specify by the measure number)
[LOC] → [Ten Key]) → [ENTER] (specify by the locate point)

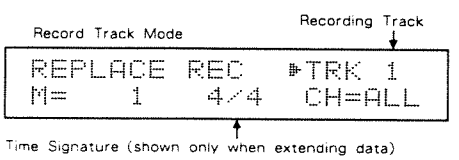
○Move the cursor to the starting position for recording :
([Alpha Dial] or [Ten Key]) → [ENTER]

● From the Stand – by condition of MODE 1,

①Select the recording stand – by condition :
[REC]



If you wish to change the Record Track Mode, move to the Record Field Display :
Push [REC] once more.



②Select a recording track :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

③Start recording :
[PLAY]

④Stop recording :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Additions

★To control the recording operation from an external device, set the Sync Clock mode (FUNC 1) to MIDI or TAPE, depending on the type of external device. Refer to Reference ☆1. Also, take the following procedure after assigning a recording track in step ② :

■ When using a MIDI device (Sync Clock set to MIDI)

③Move the master device to the recording start position. If the master device does not send Song Position Pointer, it is required to match the starting position of both devices.

④Start the master device.

⑤Stop the master device.

The [PLAY] and [STOP] keys on this unit function properly, but normally, start or stop control is not performed on the slave device.

■ When using a tape recorder (Sync Clock set to TAPE)

③Always set the recording start position to the beginning of the song data (M = 1).

Start the data where the FSK signal is recorded.

④Start recording while the leader signal is still playing :
[PLAY]

Even when the tape is finished, the recording does not stop automatically.

⑤Stop recording :
[STOP]

Reference

☆1. P.23 FUNC 1 SYNC CLOCK
☆2. P.52 TAPE SYNC PLAY

RECORD FIELD

Function — This function can set the Record Track Mode, a recording track, and a beat for new data, etc.

Procedure

● From the Stand – by condition of MODE 1,

①Select the recording stand – by condition :
[REC]

②Move to the Record Field Display :
[REC] (again)

③Select the Record Track mode :
[Ten Key] → [ENTER]

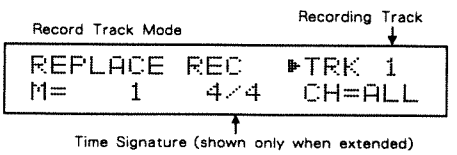
④Select a recording track :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

⑤When extending the song data, set the beat.
[Ten Key] → [ENTER]

● The unit is returned to the Stand – by condition of MODE 1.

Additions

★The Record Field Display shows the following parameters :



★When recording a Phrase track, any of the following four Record Track Mode can be selected in the Record Field Display.

(1) REPLACE REC (Replace Recording)
(2) MIX REC (Mix Recording)
(3) AUTO PUNCH IN (Auto Punch In Recording)
(4) MAN.PUNCH IN (Manual Punch In Recording)

★The time signature is automatically set to that of the rhythm patterns used in the rhythm track. Only when making new song data, or extending the existing song data, can you set a new time signature.

★When recording a Tempo track, the Replace Recording mode is always selected, and you can select whether to control the tempo with the panel controls on the unit, or MIDI messages sent from an external device. Refer to Reference ☆ 2.

★When recording data with a specified MIDI receive channel, refer to Reference ☆ 1.

★Using the Track Selector Buttons, you can select a recording track regardless of the current cursor position.

★The following beats (128 kinds) are valid :

1/2 ~ 32/2
1/4 ~ 32/4
1/8 ~ 32/8
1/16 ~ 32/1

Reference ☆1. P.67 MIDI 1 RCV CHANNEL
☆2. P.34 REPLACE REC

REPLACE REC (Phrase Track Replace Recording)

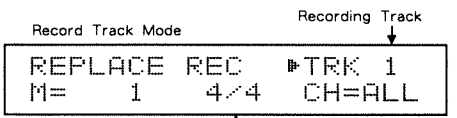
Function — This function allows you to record new song data in a phrase track, erasing any previous song data.

Procedure

● From the Stand – by condition of MODE 1,

①Select the recording stand – by condition :
[REC]

②Move to the Record Field Display :
[REC]



Time Signature (shown only when the song data is to be extended)

③Set the Record Track Mode to "REPLACE" :
([Alpha Dial] or [1]) → [ENTER]

④Select a recording track :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

⑤If you are extending the song data, set the beat :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

This unit is now in the recording stand – by mode.

⑥Start recording :
[PLAY] (or [PAUSE] → [PLAY])

⑦Stop recording :
[STOP]

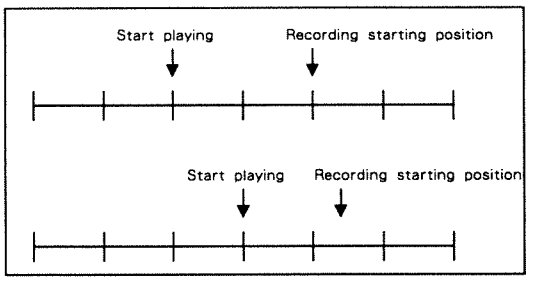
● The unit is returned to the Stand – by condition of MODE 1.

Additions

★A new track can be recorded without erasing the previous data (except for the specified channel) in the track, by setting the recording MIDI channel with "MIDI 1", refer to Reference ☆1.

★There are two different methods for recording :

(1) [REC] → [PLAY] Count – in Recording
The unit starts recording after playing two bars of count – in.



(2) [REC] → [PAUSE] Key – on Start Recording (The Pause Indicator is lit)
The unit starts recording immediately, by receiving MIDI messages from MIDI IN, such as Note, or damper messages. Pushing [PLAY] will have the same effect.

★Each time [PAUSE] is pressed, Count – in (= the Pause indicator goes out) and Key – on Start (the Pause indicator is lit) recording are alternately switched.

★Even if you start playing during the count – in, what you play will be recorded.

Reference ☆1. P.67 MIDI 1 RCV CHANNEL

MIX REC

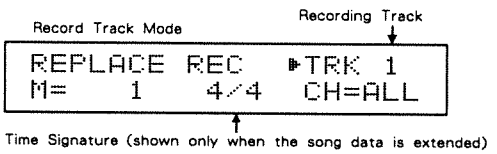
Function This allows you to overdub new performance data on song data previously recorded in a phrase track.

Procedure

●From the stand – by condition of MODE 1,

①Select the recording stand – by mode :
[REC]

②Change to the record field display :
[REC]



③Set the Track Mode to "MIX REC" :
([Alpha Dial] or [2]) → [ENTER]

④Specify the recording track :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

⑤To extend song data, set the beat.
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

Now, the unit is in the recording stand – by mode.

⑥Start recording :
([PLAY] or ([PAUSE]) → [PLAY])

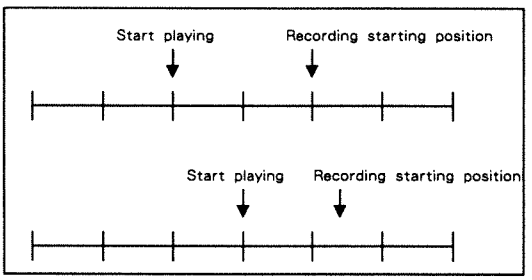
⑦Stop recording :
[STOP]

●The unit is returned to the stand – by condition of MODE 1.

Additions ★By specifying the recording MIDI channel with "MIDI 1", only the specified channel data can be added. Refer to Reference ☆1.

★There are two different methods for recording :

(1) [REC] → [PLAY] Count – in Recording
Recording starts after two bars of count – in.



(2) [REC] → [PAUSE] Key – on Start Recording
The moment Note ON or Damper ON messages are received through MIDI IN, recording starts. Pushing [PLAY] will have the same effect.

Each time you push [PAUSE], Count – in (the Pause indicator goes out) and Key – on Start (the Pause indicator lights up) recording modes are alternately selected.

★Even if you start playing during the count – in, what you play will be recorded.

Reference ☆1. P.67 MIDI 1 RCV CHANNEL

AUTO PUNCH IN (Auto Punch In Recording)

Function

The punch – in recording is automatically performed ovber the section you set previously.

Procedure

●From the Stand – by condition of MODE 1,

①Select the recording stand – by condition :
[REC]

②Move to the Record Field Display :
[REC]

③Set the Record Track mode to "Auto Punch In" :
([Alpha Dial] or [3]) → [ENTER]

④Specify the recording track :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

⑤Start before the Punch – in point :
[PLAY]

⑥Stop recording after the Punch – out point :
[STOP]

●The unit is returned to the Stand – by condition of MODE 1.

Additions

★Punch in recording can be automatically performed according to the Punch point set with FUNC 6. Refer to Reference ☆1. The default setting for the Punch – in point is the beginning of the song, and the Punch – out point is the end of the song.

★Punch In recording, just like Replace recording, rewrites the old song data of the specified MIDI channel. If you wish to set a different receive MIDI channel, refer to Reference ☆2.

Reference

☆1. P.81 FUNC 6 PUNCH POINT
☆2. P.67 MIDI 1 RCV CHANNEL

MAN. PUNCH IN (Manual Punch In Recording)

Function Punch – in recording is performed using the Punch In/Out pedal, or the panel controls.

Procedure

● From the Stand – by condition of MODE 1,

①Select the recording stand – by condition :
[REC]

②Move to the Record Field Display :
[REC]

③Set the Record Track mode to "MAN.PUNCH IN" :
([Alpha Dial] or [4]) → [ENTER]

④Specify the recording track :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

⑤Start playback :
[PLAY]

⑥Punch in recording (= start recording).
[REC]

⑦Punch out recording (= stop recording).
[PLAY]

⑧Steps 6 and 7 can be repeated as many times as you like.

⑨Stop recording :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Additions ★Each time you press the Punch In/Out pedal, Punch – in (the REC indicator is lit) and Punch – out (the indicator goes out) are alternately selected.

REPLACE REC (Tempo Track Replace Recording)

Function — This function records new tempo data, erasing the old tempo data in the Tempo track.

Procedure

● From the Stand – by condition of MODE 1,

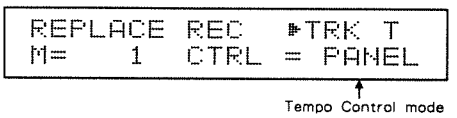
①Select the recording stand – by condition :
[REC]

②Move to the Record Field Display :
[REC]

③Set the Record Track mode to "REPLACE" :
([Alpha Dial] or [1]) → [ENTER]

④Specify the Tempo track :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

⑤If you are extending song data, set the beat :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]



⑥Select the Tempo Control mode (CTRL) :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

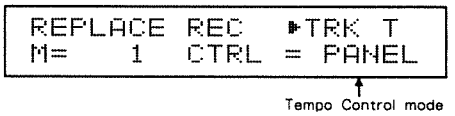
The unit is now returned to the recording stand – by mode.

⑦Start recording :
[PLAY]

⑧Stop recording :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Additions



★With FUNC 1 and Record Field (CTRL), one of the following recording modes can be selected.

■Sync Clock : INTERNAL

CTRL = PANEL

Using the [Alpha Dial] or [Ten Key Pad], change the tempo. The [Alpha Dial] changes the tempo values continuously, and when using the [Ten Key Pad], the specified value is entered the moment [ENTER] is pressed. The variable range of the tempo is 5~500.

CTRL = MIDI

Using the MIDI messages shown below, the tempo can be changed. The tempo value changes continuously according to the Control MIDI messages set with CNFG 6 (see Reference ☆2). The highest or lowest tempo value can be determined by (basic tempo) x (valid data range/2) x (varying ratio).

Control MIDI messages	Range	Varying ratio for the valid basic tempo	Value of the basic tempo
NOTE NUMBER	36~84 (C2~ C6)	Approx. 4%	60 (C4)
VELOCITY	1~127	Approx. 2%	64
CC #	0~127	Approx. 2%	64
PB	−128~128	Approx. 2%	0

■Sync Clock : MIDI

The tempo change is recorded according to the clock of the external MIDI device.

■Sync Clock : TAPE

The tempo change is recorded according to the tape sync signals (FSK).

★You can use only Count − in recording.

Note

★The Tempo Control mode can be selected only when the Sync Clock mode is set to INTERNAL.

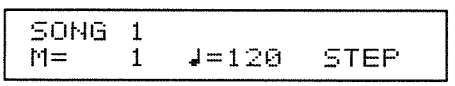
Reference

☆1. P.73 FUNC 1 RCV CHANNEL
☆2. P.192 CNFG 6 MIDI CONTROL

STEP RECORDING

Function This records each step on a score using the Ten Key Pad on the unit, or anexternal MIDI keyboard.

Procedure First, prepare for step recording from the stand – by condition of MODE 1.

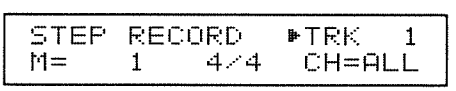


○Move the cursor to "Record Mode", and select "STEP".
([Alpha Dial] or [2]) → [ENTER]

○Cursor to "Measure", and move to the record starting position. ([Alpha Dial] or [Ten Key Pad]) → [ENTER]

●From the stand – by condition of MODE 1,

①Move to the Record Field Display :
[REC]



②Specify the recording track :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

③If you are extending the song data, specify the beat :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Specify the step time :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑤Specify the MIDI channel to be input :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑥Set the pitch :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

When step – recording from an external keyboard, play the relevant key once.

⑦Enter the velocity value :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑧Enter the gate time value :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

Repeat steps ⑥ to ⑧ as many times as necessary.

⑨Stop recording :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

To enter a chord do as follows :

Procedure	Step Time	Default Gate Time
[Ten Key Pad]	Specifying with note marks	See Reference 1
[Ten Key Pad]	Directly specifying the step time value	See Reference 2

★Set the step time to the shortest note of all the notes you are going to enter.

There are two methods of specifying a chord :

(1) With the panel controls on this unit :

①Push [PAUSE] and make sure the Pause indicator lights up.

②While still entering the last note of the chord, push [PAUSE] and make sure the indicator goes out.

(2) From an external MIDI device :

①Play the chord, or play each note in sequence while the damper pedal is being pressed, then release the pedal.

★When you make a mistake, go back to the relevant note by pressing [RESET], then enter the correct note. Pressing [RESET] will back up one note, erasing it.

★There are two different methods for entering a rest :

Procedure	Function	Descripiton
[→]	Advances to the next step with no date entered.	No data increase
[9]	Rest data is entered instead of a pitch, advancing to the next step.	One step data increase

★To record a tie (linking notes), press [←]

★Pressing [MIDI] (the REC indicator flashes), will cancel any input from MIDI IN. Pressing it again will resume input.

Note

★Step recording rewrites the entire song data in the specified track, that is, any previous data is erased.

★A tie programming procedure cannot be taken after [→] or [RESET].

Reference

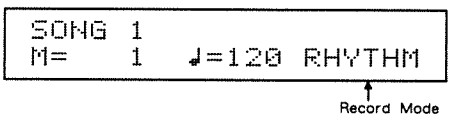
☆1. P.187 CNFG 2 STEP/GATE
☆2. P.189 CNFG 3 GATE RATIO

R – PTN RECORD 1 (Rhythm Pattern Recording 1)

Function This function allows you to program a bar of rhythm pattern.

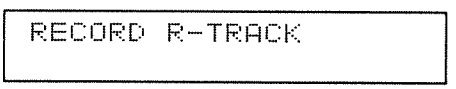
Procedure First, prepare for rhythm recording from the stand – by condition of MODE 1.

○Move the cursor to Record Mode, then select "RHYTHM".
([Alpha Dial] or [Ten Key Pad]) → [ENTER]



● From the stand – by condition of MODE 1,

①Move to the Record Field Display :
[REC]



②Select "R – PTN" :
([Alpha Dial] or [2]) → [ENTER]

③Assign a rhythm pattern number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Specify the time signature :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑤Specify the instrument number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑥Specify the resolution :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑦Enter the velocity level number on the pattern grid :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

To edit the resolution, press [ENTER], then return to step ⑥.

To assign the next instrument number, return to step ⑤ with [ENTER] → [←].

To assign the next pattern number, return to step ③ with [ENTER].

⑧Stop step – recording :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★When the cursor resides at the instrument number, resolution or pattern grid, the instrument number can be changed by using [SKIP] or [RESET].

★Each time you press [ENTER], the cursor moves between the pattern grid and pattern number.

★By pressing [PLAY], you can monitor the rhythm pattern currently being programmed, once (= MIDI Output). Meanwhile the metronome is heard.

★By pressing [PLAY], you can monitor the rhythm pattern currently being programmed, repeatedly (= Repeat Monitor). Meanwhile the metronome is heard. To stop the Repeat Monitor, press [PAUSE].

★The following 128 beats are valid for a rhythm pattern :

★The resolution set here is for "recording quantize" (a function that records the key on positions in real – time recording and immediately corrects the timing).

★Regarding the Velocity Code, see Reference ☆1.

Reference

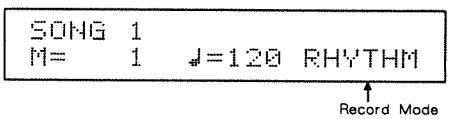
☆1. P.78 FUNC 4 RHITHM

R – PTN RECORD 2 (Rhythm Pattern Recording 2)

Function This function allows you to record a bar of rhythm pattern by using a real – time performance from an external MIDI device.

Procedure First, prepare for step – recording from the stand – by condition of MODE 1.

○Move the cursor to Record Mode, then select "RHYTHM".
([Alpha Dial] or [3]) → [ENTER]



● From the stand – by condition of MODE 1,

①Move to the Record Field Display :
[REC]

②Select "Rhythm Pattern Record" :
([Alpha Dial] or [2]) → [ENTER]

③Assign a rhythm pattern number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Specify the time signature :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑤Specify the instrument number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑥Specify the resolution :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑦Set to the Repeat Monitor mode.(The metronome plays.)
[PLAY]

⑧When the cursor resides at the pattern grid, performance from the external keyboard can be recorded in real – time. All the instruments can be recorded regardless of the instrument number shown in the display.

To stop Repeat Monitor, press [PAUSE].

● The unit is returned to the stand – by condition of MODE 1.

Additions ★When the cursor resides at the instrument number, resolution or pattern grid, the instrument number can be changed by using [SKIP] or [RESET].

★Each time you press [ENTER], the cursor moves between the pattern grid and pattern number.

★During Repeat Monitor, rhythm can also be entered with the [Ten Key Pad]. Select the instrument number you wish to enter in the grid, and enter the velocity level number.

★Pressing [MIDI] (the REC indicator flashes), will cancel any input from MIDI IN. Pressing it again will resume input.

Notes

★MIDI messages which can be received are only the ones set in Reference ☆1.

★The received velocity messages and the actual velocity level number recorded in a rhythm pattern are as shown below :

Received Velocity	Recorded Velocity code	Transmitted Velocity (default setting)
1~ 24	1	16
25~ 40	2	32
41~ 56	3	48
57~ 72	4	64
73~ 88	5	80
89~104	6	96
105~119	7	112
120~127	8	127

Reference

☆1. P.79 FUNC 5 RHYTHM INST
☆2. P.78 FUNC 4 RHYTHM VELO

R – PATTERN COPY (Rhythm Pattern Copy)

Function — This function copies a rhythm pattern to a different location (pattern number) in the same song. Also, the pattern of a single rhythm instrument can be copied.

Procedure

● From rhythm pattern recording mode,

■ Copying a rhythm pattern

①Move the cursor to the rhythm pattern number :
[←] [→]

②Specify the destination rhythm pattern number :
[Alpha Dial]

③Select "Copy" :
[2] → [ENTER]

④Select the source rhythm pattern number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑤Execute :
[REC]

● Copying an instrument

Copying a rhythm pattern

①Move the cursor to the instrument number :
[←] [→]

②Specify the destination instrument number :
([Alpha Dial] or [Ten Key Pad])

③Select "Copy" :
[2]

④Select the source instrument number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑤Execute :
[REC]

R – PATTERN ERASE

Function　This function allows you to erase any rhythm pattern or rhythm instrument.

Procedure

●From rhythm pattern recording mode 1 or 2,

■Erasing a rhythm pattern

①Move the cursor to the rhythm pattern number :
[←] [→]

②Specify the rhythm pattern number to be erased :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Select "Erase" :
[4] → [ENTER]

④Execute :
[REC]

■Erasing an instrument

①Move the cursor to the instrument number :
[←] [→]

②Specify the rhythm instrument number to be erased :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Select "ERASE" :
[4] → [ENTER]

④Execute :
[REC]

●From rhythm pattern recording mode 2,

■Erasing an instrument

①While holding down the damper pedal of the external instrument (MIDI Control Change message No.64 Hold 1), play the note that corresponds to the instrument to be erased.

or

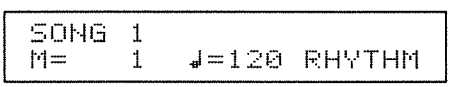
①While holding down the pedal switch (DP – 2) connected to the Punch – In/Out socket, play the note that corresponds to the instrument to be erased.

R – TRACK RECORD (Rhythm Track Recording)

Function This function sets the length of a song, and the beat of each bar, by assigning a rhythm pattern or rest data to each bar number.

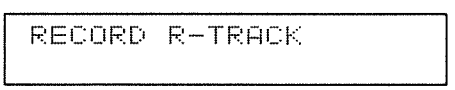
Procedure First, prepare for rhythm – recording from the stand – by condition of MODE 1.

○Move the cursor to Record Mode, then select "RHYTHM" :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]



●From the stand – by condition of MODE 1 :

①Move to the Record Field Display :
[REC]



②Select "R – TRACK" :
([Alpha Dial] or [1]) → [ENTER]

③Specify the bar number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

■To assign a rhythm pattern :

④Assign a rhythm pattern number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑤Select the velocity bias :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

■To assign a rest pattern :

④Enter a rest pattern :
([Alpha Dial] or [0]) → [ENTER]

⑤Set the beat :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

Additions ★Velocity bias is the value that changes the overall velocity of a rhythm pattern (the velocity bias value is added to the current velocity). Using this parameter, you can make the same rhythm patterns gradually stronger (or weaker).

★Pressing [SKIP] or [RESET] will enter all the values you have specified, then move to the following or preceding bar.

★Pressing [PLAY] will monitor the bar currently shown.

★Pressing [PLAY] will monitor the bar currently shown repeatedly. To stop monitoring, press [PAUSE].

PLAY

PLAY 47
BLOCK REPEAT 50
TAPE SYNC SIGNAL OUTPUT 51
TAPE SYNC PLAY 52

PLAY

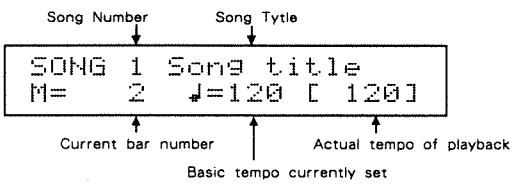
Function This plays the recorded song data.

Procedure

● From the stand – by condition of MODE 1,

①Go to the position where you wish to start playing :
([Alpha Dial] or [Ten Key]) → [ENTER] (specify by the measure number)
[LOC] → [Ten Key]) → [ENTER] (specify by the locate point)

②Start playing :
[PLAY]



③Stop playing :
[STOP]

Additions

★During playback, song data in each track can be muted. Refer to Reference ☆ 1.

★You can pause the playback by pressing [PAUSE]. Any note playing when [PAUSE] is pressed will keep playing. This fact makes it possible to monitor a chord, etc. To cancel the pause, press [PAUSE] again, or [PLAY].

★When [STOP] is pressed,
(1) the data stops immediately, or
(2) the data plays up to the end of the bar.
Either of the above modes can be selected with Reference ☆2. SUPER – MRC defaults to (2).

★You can use a Quicker (4 times quicker) or Slower (1/4 times) play back speed, by [PLAY] + [→] or [PLAY] + [←].

★During playback, the cursor always resides at the tempo position, and the tempo can be changed with the [Alpha Dial] or [Ten Key Pad]. The new tempo does not, however, affect the basic tempo (Reference 3.)

★The edited tempo can be returned to the basic tempo using the [Alpha Dial].

★Only when tempo change data exists in the tempo track will the basic tempo currently set differ from the actual tempo of playback.

★Pressing [RESET] instead of [STOP] will return the song data to the beginning.

Reference ☆1. P.22 TRACK MUTE
☆2. P.186 MODE 5 CNFG 1
☆3. P.87 FUNC 9

BLOCK REPEAT

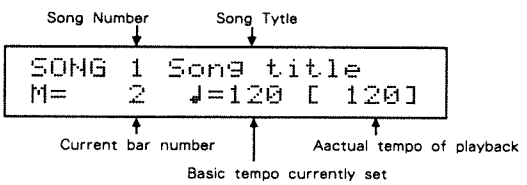
Function This function allows you to play a certain portion of the recorded song data repeatedly.

Procedure

● From the stand – by condition of MODE 1,

①Start the block repeat :

PLAY



The set section of data is played repeatedly.

②Stop playing :

STOP

● The unit is returned to the stand – by condition of MODE 1.

Additions

★The functions available for PLAY are also available.

★To learn how to set the section for block repeat, refer to Reference ☆1. SUPER – MRC defaults to playing from the beginning to end of the song data.

Reference ☆1. P.83 FUNC 7 BLOCK REPEAT

TAPE SYNC SIGNAL OUTPUT

Function

This function records the tape sync signal on an MTR (multi track recorder) while playing song data.

Procedure

● From the stand – by condition of MODE 1,

①Connect the TAPE SYNC OUT socket on the MC to one of the input sockets of the MTR.

②Set the MTR to the recording pause mode, then adjust the recording level of the MTR depending on the level of the pilot signals sent from the MC.

③Start recording on the MTR, recording the pilot signals for about 5 to 10 seconds.

④Play the song data and record the tape sync signals on the MTR :
[PLAY]

⑤When the song data is finished, stop the MTR after waiting for 5 to 10 seconds.

● The unit is returned to the stand – by condition of MODE 1.

Addition

★Set the recording level of the sync signals to abour 0 to – 10VU. If your MTR does not feature a recording level control, adjust it using a mixer, etc.

Notes

★If the FUNC 1 SYNC CLOCK is not set to INTERNAL, no tape sync signal is output.

★Do not record tape sync signals with noise reduction or equalization. If it is not possible to avoid that, use the same settings for playback.

Reference

☆1. P.73 FUNC 1 SYNC CLOCK

TAPE SYNC PLAY

Function This allows you to sync the MC to the tape sync signals sent from an MTR.

Procedure

● From the stand – by condition of MODE 1,

①Connect the TAPE SYNC IN socket on the MC to the output socket of the MTR track where the tape sync signals have been recorded.

②Start playing the MTR.(Set the track of the tape sync signals to play mode, but set the other tracks to record mode if necessary.)

③Set the MC to the play stand – by mode while the pilot signals are still being output :
[PLAY]

The moment the pilot signals change to tape sync signals, the song data starts playing.

④When the tape sync signals have finished, stop the MC.
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Notes

★If the FUNC 1 SYNC CLOCK is not set to TAPE, the MC does not synchronize to the connected device.

★If you have recorded tape sync signals with noise reduction or equalization, use the same settings for playback.

Reference

☆1. P.73 FUNC 1 SYNC CLOCK

AVAILABLE MEMORY

AVAILABLE MEMORY (INTERNAL) 54
AVAILABLE MEMORY (DISK) 55
LOAD CURRENT SONG 56
SAVE CURRENT SONG 57

AVAILABLE MEMORY (INTERNAL)

Function

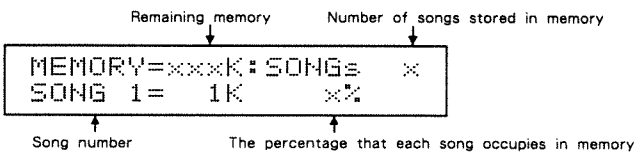
This indicates the remaining memory capacity, the number of songs currently stored in the memory and the percentage that the song data has occupied in the internal memory.

Procedure

● From the Stand – by mode of MODE 1,

①Select the Available Memory function :

AVAIL MEMO



To see the memory percentage of other song data, assign the song number :

Ten Key Pad or Alpha Dial

③Leave this mode :

STOP

● The unit is returned to the Stand – by mode of MODE 1.

Addition

★Depending on the hardware you use, the default memory capacity differs.

AVAILABLE MEMORY (DISK)

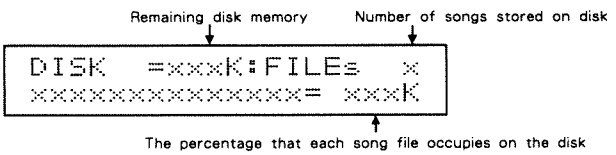
Function

This indicates the remaining memory capacity of a disk, the number of songs currently stored on the disk, and the percentage that song data has occupied in the disk memory.

Procedure

● From the Stand – by condition of MODE 1,

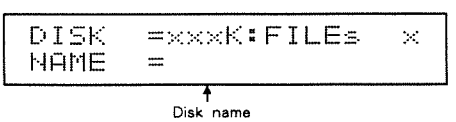
①Select the Available Memory (Disk) function :
AVAIL MEMO → MICROSCOPE



Song files are shown by name.

②Select a song file :
Alpha Dial

③To check the disk name, push FUNC .



④Leave this mode :
STOP

Additions

★The unit will return to the the Available Memory mode if the disk is removed from the disk drive while the disk drive indicator is off.

★By pressing FUNC , the display alternately shows the song name and the percentage that the current song file has occupied in the disk memory. From the disk name display, you can change to the percentage display by using Alpha Dial

Notes

★Do not remove the disk from the disk drive while the disk indicator is lit, or data on the disk may be permanently damaged.

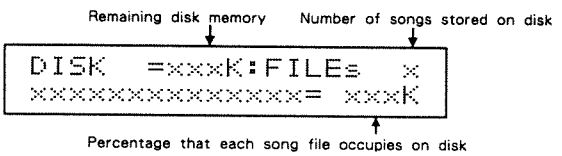
LOAD CURRENT SONG

Function This can load a song file into the current song number without using the Load function in MODE 2.

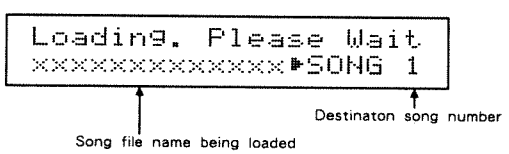
Procedure

● From the Stand – by condition of MODE 2,

①Select the Available Memory (Disk) function :
AVAIL MEMO → MICROSCOPE



②Display the song file you wish to load, then execute the load process :
Alpha Dial → LOAD



● The unit is returned to the Stand – by mode of MODE 1.

Additions ★To load more than one song at the same time, refer to Reference ☆1.

Notes ★When the display shows the disk name, loading cannot be executed.

Reference ☆1. P.159 MODE 2 LOAD

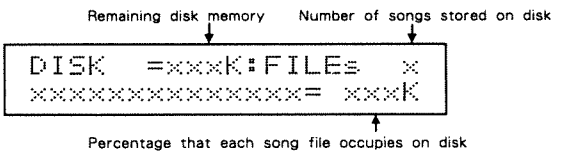
SAVE CURRENT SONG

Function — This can save the current song to a disk without using the Save function in MODE 2.

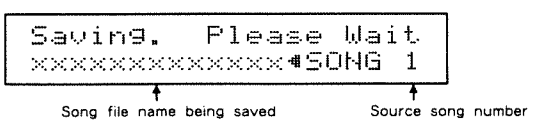
Procedure

●From the Stand – by condition of MODE 1,

①Select the "Available Memory (Disk)" function :
AVAIL MEMO → MICROSCOPE



②Execute the save process :
SAVE



●The unit is returned to the Stand – by mode of MODE 1.

Addition — ★To save more than one song at the same time, refer to Reference ☆1.

Notes

★Song data without a song title cannot be saved.

★When the same song name has been used on the disk, the old song file will be automaticaly replaced with the new one without any warning indication. Refer to Reference ☆1.

★When the display shows the disk name, saving cannot be executed.

Reference — ☆1. P.163 MODE 2 SAVE

LOCATE POINT

SET LOCATE POINT 60
CLEAR LOCATE POINT 62
JUMP TO LOCATE POINT 63

SET LOCATE POINT

Function

This function allows you to set the Locate Points to any position. There are eight user programmable Locate Points, and two System Locate Points, which are the record "start" and "end" points automatically set (renewed), altogether ten Locate Points.

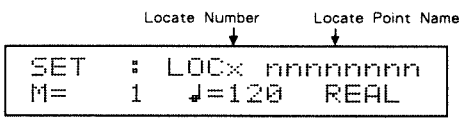
Procedure

●From the Stand – by condition of the Microscope or Play mode,

①Move the measure number to desired position.

②Select the Locate Point setting mode :
[LOC] → [REC]

Locate Point Setting Display



③Specify the Locate Point number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

In the Play mode, the locate point setting display is automatically selected, therefore, you do not need to press [REC].

●The unit is returned to the Stand – by condition of the Microscope or Play mode.

Addition

★To enter a locate point number in the Play mode, select the locate point setting display, then press [ENTER] the moment you wish to set the point.

★ 0 to 9 are valid for a Locate Point as shown below :

Locate Number	Locate Point Type	Description
0	System locate point	Automatically set when recording starts
1 – 8	User programmable locate points	Can be set at any position in the song data
9	System Locate Point	Automatically set when recording ends

★The Locate Point is determined by location messages (measure, beat and clock) in any song data.

★The previous location messages of the Locate Point are automatically rewritten with new data, therefore, it is unnecessary to erase the previous data before setting the new one.

★The Locate Points set here directly affect FUNC10. See Reference ☆1.

★In the Locate Point setting mode, you can leave the mode and return to the previous condition by pushing [LOC].

★Be sure to set the Locate Point Name. (See reference ☆2.)

Notes

★LOC, 0 and 9 are System Locate Points which cannot be rewritten.

★When you are setting the Configuration, or using certain parameters for the Locate Points, only the measure messages may be effective. See Reference ☆2.

Reference

☆1. P.88 FUNC10 LOCATE POINT
☆2. P.186 CNFG 1 LOCATE MODE

CLEAR LOCATE POINT

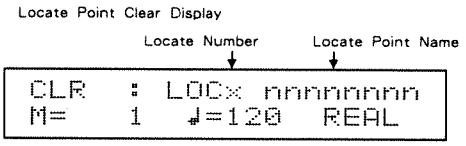
Function This function erases any of the Locate Points (user programmable : 1 – 8) you have set.

Procedure

● From the stand – by mode,

①Select the Locate Point Clear mode :
[LOC] → [REC]

Locate Point Clear Display



②Assign the Locate Point number to be cleared :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

● The unit is returned to the stand – by mode.

Additions

★The Locate Point you have erased here directly affects FUNC10. See Reference ☆1.

★You can leave the Locate Point clear mode, and return to the previous condition, by pushing [LOC] .

Notes

★LOC, 0 and 9 are System Locate Points which cannot be rewritten.

★Clearing a Locate Point will erase the locate point name at the same time.

Reference

☆1. P.88 FUNC10 LOCATE POINT

JUMP TO LOCATE POINT

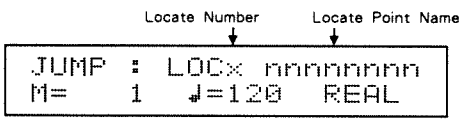
Fuction

This function allows you to jump to any user programmable Locate Point you have previously set, or one of the System Locate Points.

Procedure

●From the Stand – by or Microscope mode,

①Select the Jump to Locate Point mode :
[LOC] → [REC]



②Specify the Locate Point number where you wish to jump :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

●The unit is returned to Stand – by, in Microscope or Play mode.

Addition

★If you have not pushed [ENTER] yet, you can leave the Jump to Locate Point mode simply by pressing [LOC] .

Notes

★Depending on the Configuration setting, only the measure value of the location messages may be effective. See .Reference

★You cannot jump to a Locate Point that has not been set.

★If the location messages (measure, beat and clock) are set to values which exceed the capacity of the song data, the system will jump to the largest possible value. For example, if you try to jump to a Locate Point set at the 120th bar, but the song data has only 100 bars, you jump to the 100th bar.

★The above Jump function is not available during playback or recording.

Reference

☆1. P.186 CNFG 1 LOCATE MODE

MIDI

MIDI 66
MIDI 1 RCV CHANNEL (Receive Channel) 67
MIDI 2 RCV STATUS (Receive Status) 68
MIDI 3 XMI CONDITION (Transmit Condition) 69

MIDI

Function

Three functions are available for setting how the MIDI messages are transmitted or received.

Procedure

● From the Stand – by condition of MODE 1,

①Select a MIDI function

②Set each MIDI function

:
:

○ [STOP]

● SUPER – MRC is returned to the stand – by condition of Mode 1.

Additions

★Any MIDI functions you have edited are not effective until the unit is returned to the stand – by condition.

★If you renew the configuration file after setting each MIDI function, the system will default to the renewed MIDI functions. Refer to Reference ☆1 and ☆2.

Notes

★A complete row of numbers may be entered simultaneously, by using the Ten Key Pad.

★It is not possible to select the MIDI Function setting mode from any other condition (e.g. EDIT) except for the Stand – by.

Reference

☆1. P.184 MODE 5 SYSTEM CONFIG
☆2. P.193 CNFG 7 SETUP UPDATE

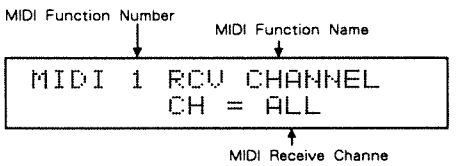
MIDI 1 RCV CHANNEL (Receive Channel)

Function — This sets the channel on which the MIDI messages are received.

Procedure

● From the stand – by condition of MODE 1,

①Select "Receive Channel" :
[MIDI] → [1] → [ENTER]



②Specify the MIDI receive channel :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★The values and the actual receive channels correspond as shown below :

0	ALL	All the MIDI channel messages are received
1~16	1~16	Only the MIDI channel messages currently shown in the display are received.

★Only the channel set here can be re – recorded. Refer to Reference ☆1 and ☆2.

★The MIDI receive channel set here is also effective for MIDI messages which use Soft Thru.

Notes

★System Exclusive messages and Tune Request (= System Common messages) can be received regardless of the MIDI receive channel set here.

Reference

☆1. P.28 REPLACE REC
☆2. P.32 AUTO PUNCH IN P.33 MAN. PUNCH IN

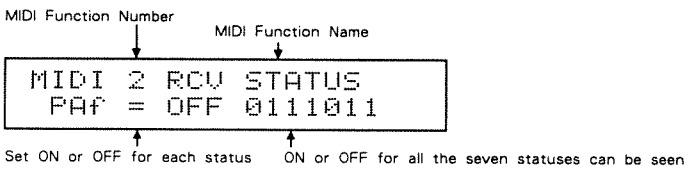
MIDI 2 RCV STATUS (Receive Status)

Function This function can select whether each MIDI status is to be received or not.

Procedure

● From the stand – by condition of MODE 1,

①Select "RCV STATUS" :
[MIDI] → [2] → [ENTER]



②Set ON or OFF for each MIDI status :
[Alpha Dial] or [Ten Key Pad] (Change values)
[←] [→] or [ENTER] (Shift the cursor)

③Leave this mode :
[STOP]

● The unit is returned to the stand – by mode of MODE 1.

Additions

★The values and actual conditions correpsond as shown below.(The value can be entered directly using the Ten Key Pad.)

0	OFF	Receive
1	ON	Non receive

★The following seven MIDI statuses can be set.

PAf	Polyphonic Aftertouch (Polyphonic Key Pressure)
CCa	Control Change (0 – 63)
CCb	Control Change (64 – 120), Local On/Off
PG	Program Change
CAf	Channel Aftertouch (Channel Pressure)
PB	Pitch Bend Change
EX	System Exclusive Messages

★The values you set are also effective for messages which use Soft Thru.

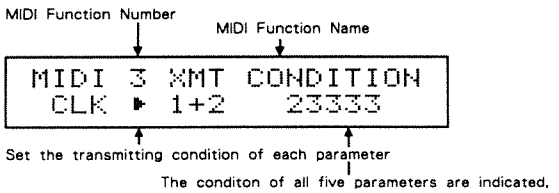
MIDI 3 XMT CONDITION (Transmit Condition)

Function　This sets the transmit condition of MIDI Messages concerning the system.

Porocedure

● From the stand – by condition of MODE 1,

①Select "XMT CONDITION" :
[MIDI] → [3] → [ENTER]



②Set ON or OFF for each MIDI messages :
[Alpha Dial] or [Ten Key Pad] (Change values)
[←] [→] or [ENTER] (Shift the cursor)

③Leave this mode :
[STOP]

● The unit is returned to the stand – by mode of MODE 1.

Additions　★The values and actual conditions correspond as shown below.(The value can be directly entered with the Ten Key Pad.)

0	OFF	Non transmitted
1	OUT 1	Transmitted from MIDI OUT 1
2	OUT 2	Transmitted form MIDI OUT 2
3	1 + 2	Transmitted from both MIDI OUT's, 1 and 2

★The following five MIDI messages can be set :

THRU (Soft Thru)
Set this to ON to send the messages fed into MIDI IN to MIDI OUT (to monitor data being recorded). The system defaults to "2" (OUT 2).

CLK (Timing Clock)
To transmit MIDI messages ; Start/Continue/Stop/Song Position Pointer/Song Select (to use the unit as a master in MIDI Syncc), set this to ON. The systemdefaults to "3" (OUT 1 + 2).

Aoff (All Note Off)
Set this to OFF to use the connected unit in any mode other than MODE 3 (= OMNI OFF/POLY). This parameter is also effective for Soft Thru. The system defaults to "3" (OUT 1 + 2).

RTRG (Retrigger)
Set this to OFF to transmit more than one message that has the same note number. This parameter is also effective for Soft Thru. The system defaults to "3" (OUT 1 + 2).

ActS (Active Sensing)
This message prevents hanging notes on the sound module caused by MIDI cable breaking or cable disconnection. The default value of the Active Sensing is "1 + 2". Normally, the Active Sensing should be transmitted.

Note

★When using a monophonic sound module, or when many voices are required for performance, be sure to set the Retrigger ON. Otherwise, a proper performance may not be obtained, e.g. the sounding time is shortened.

★If the sound module cannot process the Active Sensing message propery, set the Active Sensing to OFF.

FUNC

FUNC 72
FUNC 1 SYNC CLOCK 73
FUNC 2 METRONOME 74
FUNC 3 SONG TITLE 76
FUNC 4 RHYTHM VELO (Rhythm Velocity) 78
FUNC 5 RHYTHM INST (Rhythm Instrument) 79
FUNC 6 PATCH POINT 81
FUNC 7 BLOCK REPEAT 83
FUNC 8 AUTO STOP 85
FUNC 9 BASIC TEMP 87
FUNC 10 LOCATE POINT 88
FUNC 11 OUTPUT ASSIGN 90
FUNC 12 XMT CHANNEL (Transmit Channel) 91
FUNC 13 NOTE NAME 93
FUNC 14 SONG LOG 94

FUNC

Function This allows you to set 14 different functions for each song. These are written into memory with the song data.

Procedure

● From the stand – by condition of MODE 1,

① Select a Function number :
[FUNC] → ([Ten Key Pad] or [Alpha Dial]) → [ENTER]
:
○ (Take the necessary procedure for each Function)
:
○ Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★When you use the [Alpha Dial], the value will be directly entered. When the [Ten Key pad] is used, the value is not entered until [ENTER] is pushed. A "+" mark is shown when the value is not yet entered.

★You can always return to the stand – by condition by pushing [FUNC] then [STOP]. In this case, however, any value not yet entered will be cancelled (erased).

★You can always return to the Function Number selection display by pushing [FUNC] twice. In this case, however, any value not yet entered will be cancelled (erased).

★In the Function setting display, any value not yet entered can be cancelled by pressing [CANCEL].

★The edited values of the Function parameters are not effective until [STOP] is pressed, and the unit is returned to the stand – by mode.

★When specifying the area, or position within the song data using the Function parameters, you can select whether to use bar numbers or locate points by pushing [MODE].

★In some function (sach as FUNC 11, 12), the value is entered by just pressing Ten Key Pad.

★To enter into function setting, be sure to press [FUNC] in the stand – by mode.

Note

★The set values of FUNC 1, 2, 4, 5, 9, 11, 12, 13 and 14 can be copied to another song data. Refer to Reference ☆1.

Reference

☆1. P.145 UTIL 3 FUNCTION COPY

FUNC 1 SYNC CLOCK

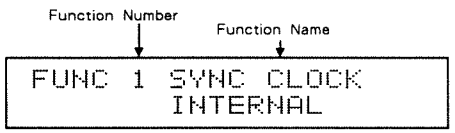
Function — This selects which clock is to be used for synchronizing this unit with an external controlling device.

Procedure

● From the stand – by condition of MODE 1,

①Select "SYNC CLOCK" :
[FUNC] → [1] → [ENTER]

②Select the sync clock to be used :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]



③Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Addition

★Sync clock are set as shown below :

Ten Key Pad	Value	Desciption
1	INTERNAL	All units synchoronize with the clock of the MC. Usually, use this mode. By following Reference 1, the MC works as a master in MIDI sync. Tape sync signals are always transmitted.
2	MIDI	The MC works as a slave in MIDI sync. All units synchronize with the MIDI clock (F8) of the master device (the device connected to the MC). The MC is controlled by the received Start, Continue, Stop, Song Position Pointer and Song Select.
3	TAPE	The MC works as a slave in tape sync. All units synchronize with the tape sync signals received at the Tape Sync In. Refer to Reference 2 for the signal level, etc.

Note

★To perform sync playback or recording, read carefully the explanation on sync in the owner's manual of the controlling device.

Reference

☆1. P.96 MIDI 3 XMT CONDITION
☆2. P.52 TAPE SYNC PLAY

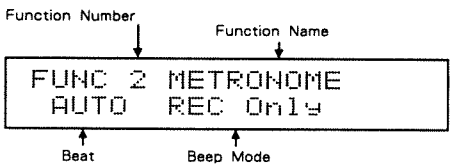
FUNC 2 METRONOME

Function This sets the beep mode (how to play the metronome), and the beat of the metronome.

Procedure

● From the stand – by condition of MODE 1,

①Select "METRONOME" :
[FUNC] → [2] → [ENTER]



②Select the beat.
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Select the Beep mode :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Addition ★Beats are set as shown below, and the beat indicator on the panel flashes to indicate the set beat.

Ten Key Pad	Value	Description
0	AUTO	Beat corresponds to the bottom number of the time signature (of the rhythm track)
1		Fixed beat of the timing shown in the Display (re – played in strong beat from a bar line)
2		
3		
4		
5		

★Beep modes are set as shown below :

Ten Key Pad	Value	Description
0	OFF	Not played
1	REC Only	Played only during recording
2	REC & PLAY	Played during recording and playing
3	Always	Played even during stand – by condition in the tempo

★The volume of the metronome can be adjusted with the metronome level control knob on the rear of the unit. The metronome level control knob changes the metronome volume of the external output at the same time.

Note

★The metronome level control knob controls the volume of the warning beep as well, therefore if it is set too low, you cannot hear the warning beep.

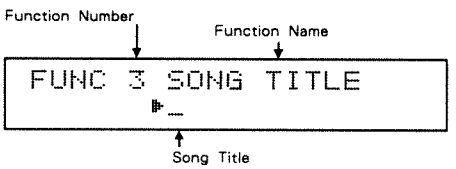
FUNC 3 SONG TITLE

Function This function allows you to name song data in the internal memory using up to 13 letters.

Procedure

● From the stand – by condition of MODE 1,

①Select "SONG TITLE" :
[FUNC] → [3] → [ENTER]



②Write the song title :
[Alpha Dial] or [Ten Key] (Selecting characters)
[←] [→] (Shifting the cursor)

③Enter the song title you have made :
[ENTER]

④Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★Rotating the [Alpha Dial] clockwise, the following characters can be called in sequence :

Letters
Space A ••• Z a ••• z 0 1 ••• 9 & ♩ ♪ ♭ # ! ? . , : ; ' " * + − / < = > ( ) [ ] { } ^ _ | $ % @

★The Ten Key Pad also allows you to select the numbers and capital letters. Each time a key is pushed, the number and capital letters are alternately selected. In this case, the letter is entered directly without [ENTER]. If you push a number key while holding [SHIFT] down, the number and small letter can be alternately selected.(Exceptional case : the ! will become ?.)

★ [PAUSE] + [→] inserts a space at the cursor position, and [PAUSE] + [←] deletes a letter.

★ [SKIP] will delete all the letters from the cursor position to the end.

★The same name written with capitals and small letters is regarded as two different song titles on a disk.

Notes

★A song without a song title (= blank) cannot be saved onto a disk.

★A disk cannot store two song files with the same song titles. Refer to Reference ☆1 and ☆2.

Reference

☆1. P.163 MODE 2 SAVE
☆2. P.57 SAVE CURRENT SONG

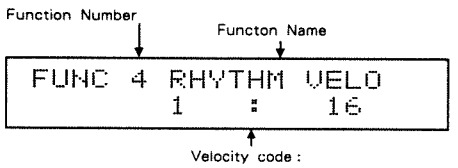
FUNC 4 RHYTHM VELO (Rhythm Velocity)

Function This sets the velocity codes (1~8) for each velocity (transmitted) during rhythm pattern programming.

Procedure

● From the stand – by condition of MODE 1,

①Select "RHYTHM VELO" :
[FUNC] → [4] → [ENTER]



②Select a velocity :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

Repeat step 2 for setting each velocity value.

③Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Addition

★When you make new song data (default values), the velocity level number of each velocity is set as shown below. For rhythm pattern recording, refer to Reference ☆1, and refer to Reference ☆2, for the velocity change during playback.

Velocity code	1	2	3	4	5	6	7	8
Velocity	16	32	48	64	80	96	112	127

★You can move the cursor to the velocity level number using [←].

★If you do not wish to change the velocity, push [ENTER] to go to the next velocity level number.

Note

★"0" is not valid for a velocity.

Reference

☆1. P.38 R – PTN RECORD
☆2. P.44 R – TRK RECORD

FUNC 5 RHYTHM INST (Rhythm Instrument)

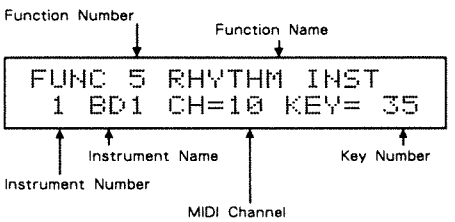
Function

This assigns an instrument name (using up to 3 letters), MIDI channel, and key number, to each instrument number (1 – 32) used during rhythm pattern programming.

Procedure

● From the stand – by condition of MODE 1.,

①Select "RHYTHM INST" :
[FUNC] → [5] → [ENTER]



②Select an instrument number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Select an instrument name for it :
[Alpha Dial] or [Ten Key Pad] (Select characters)
[←] [→] (Shift the cursor)

④Enter the instrument name you have assigned :
[ENTER]

⑤Select a MIDI channel :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑥Assign a key number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

Move the cursor to the instrument number with [←] [→], then repeat steps 2 to 6 to select each instrument number.

⑦Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

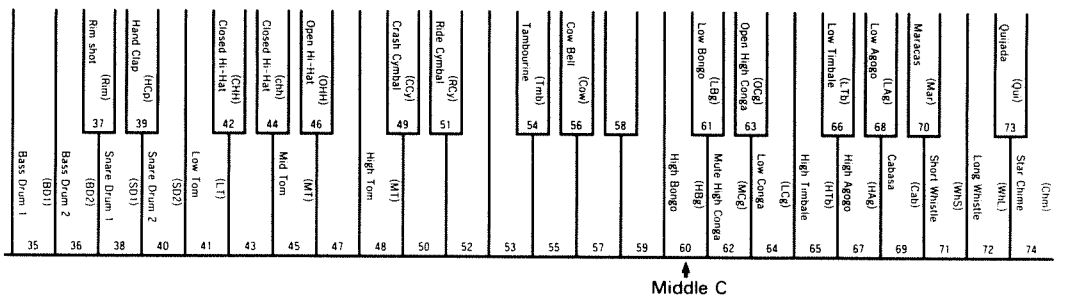
Addition

★Pushing [PLAY] will transmit the Note On messages of the rhythm instrument currently shown from MIDI OUT, for you to monitor the rhythm instrument selection. For details of the transmitting condition, refer to Reference ☆1.

★The values set in the above procedure can be used for all the rhythm patterns in the selected song data. Refer to Reference ☆2 and ☆3.

★The instrument name and key number for each instrument number will default as shown below :

Rhythm Instulments assignment to the Key numbers



★No matter where the cursor resides, you can move to the next instrument number with [SKIP], and back up a number with [RESET].

Note

★When the connected rhythm sound module is changed, all the above settings should be changed again. However, if other song data exists, you can copy it. Refer to Reference ☆4.

Reference

☆1. P.90 FUNC 11 OUTPUT ASSIGN
☆2. P.38 R – PTN RECORD
☆3. P.44 R – TRK RECORD
☆4. P.145 UTIL 3 FUNCTION COPY

FUNC 6 PUNCH POINT

Function

This function allows you to specify the section (bars or locate points) where you wish to perform Punch – in recording.

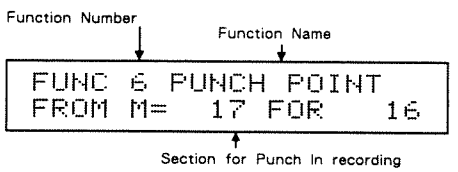
Procedure

● From the stand – by condition of MODE 1,

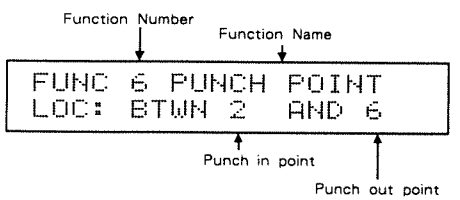
①Select "PUNCH POINT" :
[FUNC] → [6] → [ENTER]

②Specify the section where you wish to perform Punch – in recording.

■ Specifying the section with bars :
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Shift the cursor)



■ Specifying the section with locate points :
[LOC] (Select the Locate Point setting display)
[Alpha Dial] or [Ten Key Pad] (Specify the locate points)
[←] [→] or [ENTER] (Shift the cursor)



③Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★The "Bar" and "Locate Point" setting modes can be alternately selected using [MODE].

■ Specifying the section with bars :

To specify the section with bars, set the punch in point (= a bar number where you wish to Punch – in) and the punch – out point (= number of bars you wish to punch – in).

Punch in point	The head of the begining bar (including the bar line)
Punch out point	The head of the ending bar (excluding the bar line

★If you wish to set the last bar of the song data when specifying a bar number for the punch – out point, simply press [0].

■ Specifying the section with locate points :

To specify the section with locate points, set the punch in point (= locate point number where you wish to punch – in) and the punch – out point (= locate point number where you wish to punch – out).

Punch In Point	The specified locate point number (0 – 9, including the locate point)
Punch Out Point	The specified locate point number (0 – 9, excluding the locate point)

Notes

★You cannot set the punch – in and punch – out points using both bars and locate points simultaneously. The one last you specify will have priority.

★If the punch – out point is set to the same position as the punch – in point, or before the punch – in point, Auto Punch – out cannot be carried out.

Reference

☆1. P.32 AUTO PUNCH IN
☆2. P.88 FUNC 10 LOCATE POINT

FUNC 7 BLOCK REPEAT

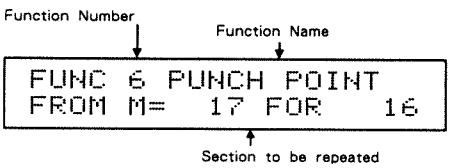
Function

This function allows you to specify the section (bars or locate points) where you wish to perform the repeat.

Procedure

● From the stand – by condition of MODE 1,

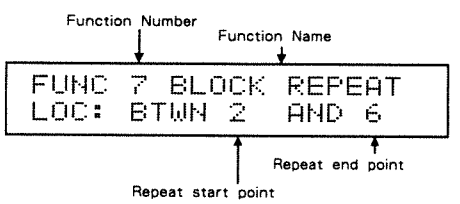
①Select "BLOCK REPEAT" :
[FUNC] → [7] → [ENTER]



②Specify the section where you wish to perform the Repeat.

■ Specifying the section with bars :
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Shift the cursor)

■ Specifying the section with locate points :
[LOC] (Select the Locate Point setting display)
[Alpha Dial] or [Ten Key Pad] (Specify the locate points)
[←] [→] or [ENTER] (Shift the cursor)



③Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★The "Bar" and "Locate Point" setting modes can be alternately selected using [MODE].

■Specifying the section with bars :

To specify the section with bars, set the repeat start point (= bar number where you wish to start playing) and the repeat end point (= the number of bars you wish to repeat).

Repeat Start Point	The head of the beginning bar (including the bar line)
Repeat End Point	The head of the end bar (excluding the bar line)

★If you wish to set the last bar of the song data when specifying a bar number for the repeat end point, simply push [0].

■Specifying the section with locate points :

To specify the section with locate points, set the repeat start point (= locate point number where you wish to start playing) and the repeat end point (= locate point number where you wish to repeat).

Repeat Start Point	The specified locate point number (0~9, including the locate point)
Repeat End Point	The specified locate point number (0~9, excluding the locate point)

Notes

★Even if the repeat end point is set to the same position as the start point, or before the start point, the song data starts playing from the set repeat start point, but does not repeat.

Reference

☆1. P.50 BLOCK REPEAT
☆2. P.88 FUNC 10 LOCATE POINT

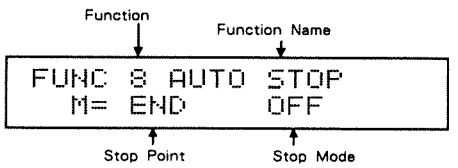
FUNC 8 AUTO STOP

Function — This function allows you to specify the stop point, and the stop mode for playback or recording.

Procedure

●From the stand – by condition of MODE 1,

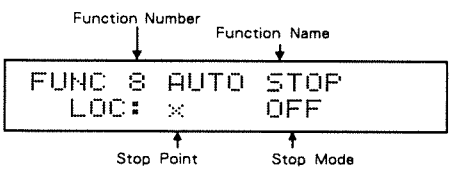
①Select "AUTO STOP" :
[FUNC] → [8] → [ENTER]



②Specify the stop point.

■Specifying the stop point with bars :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

■Specifying the stop point with locate points :
[LOC] (Select the Locate Point setting display)
[Alpha Dial] or [Ten Key Pad] (Specifying the locate points) → [ENTER]



③Select the Stop mode.
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Leave this mode :
[STOP]

●The unit is returned to the stand – by condition of MODE 1.

Additions

★The "Bar" and "Locate Point" setting modes can be alternately selected using [MODE].

★If you wish to set the last bar of the song data when specifying a bar number for the stop point, simply push "0".

★The stop points are set as show below :

Bar or locate point	Value	Description
Bar	Bar number	Stop at the head of the bar
Locate Point	Locate point number (0~9)	Stop at the locate point

★The stop mode is set as shown below :

Ten Key Entry	Value	In the Play Mode	In the Record Mode
0	OFF	Song End	Automatically extended
1	PLAY	Specified position	Automatically extended
2	REC	Song End	Specified poition
3	REC & PLAY	Specified position	Specified position

Notes ★You cannot set the stop points using both bars and locate points simultaneously. The one you specify later will have priority.

Reference ☆ P.88 FUNC 10 LOCATE POINT

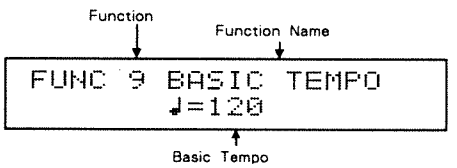
FUNC 9 BASIC TEMPO

Function This function allows you to set the basic tempo of the song data.

Procedure

●From the stand – by condition of MODE 1,

①Select "BASIC TEMPO" :
[FUNC] → [9] → [ENTER]



②Specify the basic tempo :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Leave this mode :
[STOP]

●The unit is returned to the stand – by condition of MODE 1.

Additions

★Any new song data will default to basic tempo = 120.

★When song data is loaded from a disk, the basic tempo is always shown.

★Changing the tempo during playback, or in the stand – by mode, does not affect the basic tempo setting.

Reference

☆1. P.47 PLAY

FUNC 10 LOCATE POINT

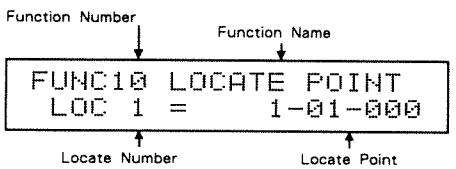
Function

This function allows you to set the Locate Point to any position. There are eight user programmable Locate Points and two System Locate Points which are the recordering "start" and "end" points automatically set (renewed), altogether ten Locate Points.

Procedure

● From the stand – by condition of MODE 1,

①Select Locate Point :
[FUNC] → [1] → [0] → [ENTER]



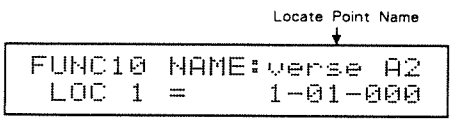
②Specify the locate point number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Specify the measure (bar number) :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Specify the beat :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑤Specify the clock :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

⑥Name the locate point you have set :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]



⑦Enter all the conditions you have set :
[ENTER]

After pushing [ENTER], repeat steps 2 to 7 to specify other locate points.

⑧Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★Locate points can also be set by changing to the locate point setting mode from the stand – by, microscope or play mode.

★Each locate point has the functions shown below :

Locate Number	Locate Point Type	Description
0	System locate point	Automatically set when recording starts
1 – 8	User programmable locate points	Can be set at any position in the song data
9	System Locate Point	Automatically set when recording ends

★Location messages of a locate point are renewed each time they are edited.

★Be sure to name each locate point.

★To cancel the locate point, set the measure to zero.

★It is possible to set the locate point to a value that exceeds the capacity of the song data.

Notes

★The locate point numbers 0 and 9 are automatically set, and therefore cannot be changed by the user.

★Depending on the settings of the Configuration parameters, only measure messages may be effective. Refer to Reference ☆3.

Reference

☆1. P.63 JUMP LOCATE POINT
☆2. P.60 SET LOCATE POINT
☆3. P.186 MODE 5 : CNFG 1 LOCATE MODE

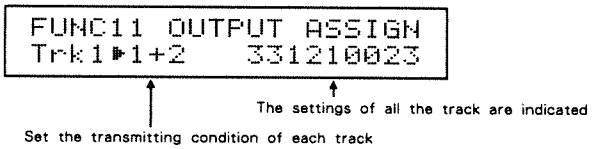
FUNC11 OUTPUT ASSIGN

Function — This function assigns each track to any MIDI Output. In other words, the song data of the track can be transmitted from the MIDI Output connector you have selected.

Procedure

● From the stand – by condition of MODE 1,

①Select "OUTPUT ASSIGN" :
[FUNC] → [1] → [1] → [ENTER]



②Specify a MIDI OUT for each track :
[Alpha Dial] or [Ten Key Pad] (Specifying the value)
[←] [→] (Shifting the cursor)

③Enter the MIDI OUT you have specifyed :
[ENTER]

④Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★The output assignment is set as shown below. When the [Ten Key Pad] is being used for changing values, the value will be entered without pressing [ENTER].

0	OFF	Non Transmitted
1	OUT 1	Transmitted from MIDI OUT 1
2	OUT 2	Transmitted form MIDI OUT 2
3	1 + 2	Transmitted from both MIDI OUT's 1 and 2

★The tracks which can specify MIDI outputs are tracks 1 to 8 and the rhythm track.

★MIDI messages are also transmitted as set above during the microscope or rhythm pattern procedure.

Notes

★MIDI messages that use Soft Thru are not affected by the output assign set here. Refer to Reference ☆1.

★Regarding how the MIDI messages run, refer to Reference ☆2.

Reference

☆1. P.69 MIDI 3 XMT CONDITION
☆2. P.204 MIDI Flow Chart

FUNC12 TRANSMIT CH

Function This function allows you to change the transmit MIDI channel of each phrase track.

Procedure

●From the stand – by condition of MODE 1,

①Select "TRANSMIT CH" :
[FUNC] → [1] → [2] → [ENTER]

②Specify the phrase track number :
([Alpha Dial] , [Ten Key Pad] or [TRACK SELECT]) → [ENTER]

③Set a new number of each transmit MIDI channel with the aid of the indication shown in the lower line of the Display.
[Alpha Dial] or [Ten Key Pad]

④Enter the edited value :
[ENTER]

After pushing [ENTER] , repeat steps 2 to 4 to set the MIDI channel for the other phrase tracks.

⑤Leave this mode :
[STOP]

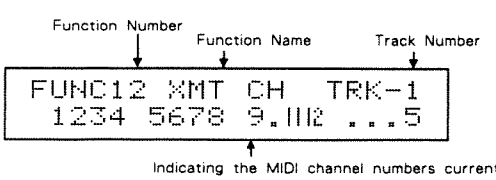
●The unit is returned to the stand – by condition of MODE 1.

Additions

★To specify MIDI channels 10 to 16 using the [Ten Key Pad] , press [0] to [6] . The value will be entered without pushing [ENTER] .

★The MIDI transmit channels are set as shown below :

Ten Key Entry	Value	Description
0	(OFF)	Non transmitted
1~16	1~16	Transmitted on the new MIDI channel which is shown in the Display



The above example is the display when channels 10, 13 to 15 are OFF and the events of channel 16 are transmitted on channel 5.

★The tracks which can specify MIDI channels are tracks 1 to 8.

★MIDI messages are also transmitted as set here during the microscope procedure.

Notes

★MIDI messages that use Soft Thru are transmitted on their own MIDI channel, no matter what MIDI channel is set here.

★Regarding how the MIDI messages run, refer to Reference ☆1.

Reference

☆1. P.205 MIDI Flow chart

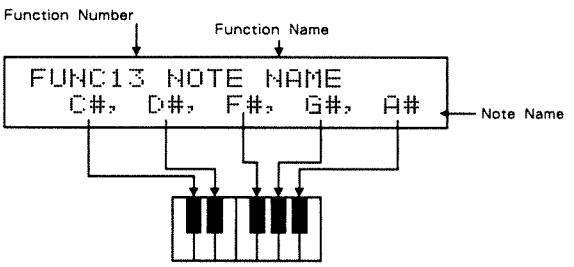
FUNC13 NOTE NAME

Function This function allows you to select whether to show keyboard note names with # or ♭.

Procedure

● From the stand – by condition of MODE 1,

①Select "NOTE NAME" :
[FUNC] → [1] → [3] → [ENTER]



②Select "#" or "♭" for the note name indication :
[Alpha Dial] or [7] / [8] (Change values)
[←] [→] or [ENTER] (Shift the cursor)

③Repeat step ② to continue to set "#" or "♭" for the other note names.

④Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★When using the [Ten Key Pad], push [7] for selecting "♭" and [8] for "#" and the value will be entered without pushing [ENTER].

★If you wish to program song data in E♭ major (or C minor), set as shown below:

```
FUNC13 NOTE NAME
  C#, Eb, F#, Ab, Bb
```

Notes

★This function changes how notes are displayed, but does not affect the way the notes are entered.

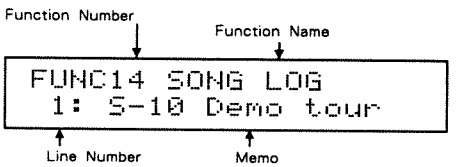
FUNC14 SONG LOG

Function This writes a memo for each song.

Procedure

● From the stand – by condition of MODE 1,

①Select "Song Log" :
[FUNC] → [1] → [4] → [ENTER]



②Specify the line number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Select a letter
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Move the cursor to the position to be written :
[←] [→]

⑤Move to another line where a memo is to be written :
[SKIP] / [RESET]

Repeat steps 4 and 5 as many times as necessary.

⑥Enter the values you have specified :
[ENTER]

⑦Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★Up to 16 letters can be written on a line, and up to 99 lines can be written.

★A space can be written at the cursor position by pressing [PAUSE] + [→], and a letter can be deleted by [PAUSE] + [←].

★ [SKIP] advances a line and [RESET] backs up a line.

★ [SKIP] deletes data from the cursor position to the end of the line.

EDIT

EDIT 96
EDIT 1 ERASE 98
EDIT 2 DELETE 100
EDIT 3 INSERT MEAS (Insert Measure) 102
EDIT 4 MERGE 103
EDIT 5 EXTRACT 104
EDIT 6 TRANSPOSE 106
EDIT 7 CHANGE VELO (Change Velocity) 108
EDIT 8 CHANGE M. CH (Change MIDI Channel) 110
EDIT 9 QUANTIZE 112
EDIT 10 COPY 114
EDIT 11 CHANGE G. T.(Change Gate Time) 116
EDIT 12 SHIFT CLOCK 118
EDIT 13 DATA THIN 120
EDIT 14 TRK EXHANGE (Track Exchange) 122
EDIT 15 MULTI MODIFY 123

EDIT

Function This includes 15 different editing functions which can be used to edit events of a certain section of the song data.

Procedure

● From the stand – by condition of MODE 1,

① Select an Edit Number :
[EDIT] → ([Ten Key Pad] or [Alpha Dial]) → [ENTER]
:
○ (Necessary procedure)
:
○ Leave the mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★When the cursor resides at a track number, you can select a track, using [Ten Key Pad] or [Track Selectors] as shown below.

Track Select Button	Ten Key Pad Entry	Track
[1]	[1]	Track 1
[2]	[2]	Track 2
[3]	[3]	Track 3
[4]	[4]	Track 4
[1]	[5]	Track 5
[2]	[6]	Track 6
[3]	[7]	Track 7
[4]	[8]	Track 8
[RHYTHM]	[9]	Rhythm Track
[RHYTHM]	[9]	Tempo Track
	[0]	ALL or Tracks 1 – 8

★The MIDI statuses which can be edited, and the variable range of each parameter, are as shown below :

MIDI Status	Variable Range
All	All MIDI Statuses
NOTE	Note Numbers (0 – 127)
PAf (Polyphonic Aftertouch)	Note Numbers (0 – 127)
CC (Control Change)	Control Change Numbers (0 – 127)
PG (Program Change)	Program Change Numbers (0 – 127)
CAf (Channel Aftertouch)	(No restriction)
PB (Pitch Bender)	(No restriction)
EX (System Exclusive)	ID Numbers
TU (Tune Request)	(No restriction)

★ To move the cursor without entering a value, use [→] [←]. If there is any value you have not yet entered, it will be cancelled by moving the cursor using [→] [←].

★You can specify the location or section of data to be edited, using either bars or locate points.(Except for some editing functions.) Normally, the unit is set to the bar setting display. To change to the locate point setting display, press [MODE], and to return to the bar setting display, press [LOC] once again.

Notes

★ In some conditions, the value can be directly entered with the [Ten Key Pad] even without pressing [ENTER].

★ It is not possible to move to any other condition but stand－by directly from the editing display.

★ When the rhythm track is to be edited, you cannot use locate points which are smaller resolution than single bars.

★Once you have edited song data, you may not be able to restore the original data. Be sure to save the original song data onto a disk before editing.

Reference

☆1. P.88 FUNC10 LOCATE POINT

EDIT 1 ERASE

Function This function erases events in a certain section of a track.

Procedure

●From the stand – by condition of MODE 1,

①Select "ERASE" :
[EDIT] → [1] → [ENTER]

②Specify the track to be erased :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

③Specify the MIDI channel to be erased :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the MIDI status to be erased :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑤Specify the section of the MIDI status to be edited :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Specify the section of song data to be erased :

■Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑦Execute :
[REC]

⑧Leave this mode :
[STOP]

●The unit is returned to the stand – by condition of MODE 1.

Additions ★Regarding the section set in step 5, refer to Reference ☆1.

■Specifying with bars

When using bars for specifying the section to be erased, set the start point (the bar where the erasing starts) and the end point (how many bars to be erased).

■Specifying with locate points

When using locate points for specifying the section to be erased, set the start point (the locate point number where the erasing starts) and the end point (the locate point where the erasing ends).

★If you keep pressing [ENTER] without setting the value of each parameter, the entire MIDI events of all the tracks from the current location (before selecting the edit mode) to the end will be erased, retaining the same number of empty bars.

★When the rhythm track is erased, the erased rhythm patterns will become rest patterns, with the same timing of the erased rhythm patterns.

Reference ☆1. P.96 EDIT

EDIT 2 DELETE

Function This function deletes data in a certain portion of a track, including all the events.

Procedure

● From the stand – by condition of MODE 1,

①Select "DELETE" :
[EDIT] → [2] → [ENTER]

```
EDIT 2 DELETE
TRK ALL
```

②Specify the track to be deleted :
([Ten Key Pad] , [Alpha Dial] or [Track Select]) → [ENTER]

③Specify the section of data to be deleted :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

④Execute :
[REC]

⑤Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

■ Specifying with bars
When using bars for specifying the section to be deleted, set the start point (the bar where the deletion starts) and the end point (how many bars to be deleted).

■ Specifying with locate points
When using locate points for specifying the section to be deleted, set the start point (the locate point number where the deletion starts) and the end point (the locate point where the deletion is to end).

★If you keep pressing [ENTER] without setting the value of each parameter, the events of all the tracks, from the current location (before selecting the edit mode) to the end, will be deleted.

Note

★When you have deleted data in the rhythm track and it becomes shorter than the phrase tracks, any data after the end of the rhythm track cannot be played. Refer to Reference ☆2.

★To delete the rhythm track (ALL or RHYTHM TRACK), you must assign the locate points to bar lines.

Reference

☆1. P.102 EDIT 3 INSERT MEAS
☆2. P.150 UTIL 7 DATA REDUCE

EDIT 3 INSERT MEAS (Insert Measure)

Function This function inserts space bars to the specified position (bars) in any track.

Procedure

●From the stand – by condition of MODE 1,

①Select "INSERT MEAS" :
[EDIT] → [3] → [ENTER]

```
EDIT 3 INSERT MEAS
TRK ALL
```

②Specify the track where space bars are to be inserted :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the timing of the empty bars :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the section where the space bars are to be inserted :

■Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

⑤Execute :
[REC]

⑥Leave this mode :
[STOP]

●The unit is returned to the stand – by condition of MODE 1.

Additions

■Specifying with bars
When using bars for specifying the section, set the start point (the bar where the measure insertion starts) and the end point (how many bars to be inserted).

★If you keep pressing [ENTER] without setting the value of each parameter, a space bar (4/4 timing) is inserted at the current location (before selecting the edit mode).

★The timing can be set only when the rhythm track has been selected.

Notes

★The section to be inserted cannot be specified with locate points.

★If you have inserted empty bars in a phrase track, and the phrase track becomes longer than the rhythm track, any data after the end of the rhythm track cannot be played. Refer to Reference ☆1.

Reference

☆1. P.50 UTIL 7 DATA REDUCE

EDIT 4 MERGE

Function This function merges two phrase tracks (song data) into one phrase track, leaving the other track empty.

Procedure

● From the stand – by condition of MODE 1,

①Select "MERGE" :
[EDIT] → [4] → [ENTER]

```
EDIT 4 MERGE
TRK 8+TRK 1 ▶ TRK 8
```

②Select two tracks to be merged ; one to be emptied and one to be retained.
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Execute :
[REC]

④Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★If you keep pressing [ENTER] without setting the value of each parameter, track 1 is merged with track 8, with the data in track 1 being erased.

Notes

★The Merge function can be performed only in the phrase tracks.

★If two tracks that use the same MIDI channel are merged, they cannot be separated later.

EDIT 5 EXTRACT

Function This function extracts a certain portion of song data in any track, and moves it to the same position in another track.

Procedure

● From the stand – by condition of MODE 1,

①Select "EXTRACT" :
[EDIT] → [5] → [ENTER]

②Specify the track where the song data is to be extracted, and the destination track :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER] (Repeat)

③Select the extract mode (how the data is to be transferred) :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the MIDI channel to be extracted :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑤Specify the MIDI status to be extracted :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Specify the section of the MIDI status to be edited.
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑦Specify the section of song data to be extracted :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑧Execute :
[REC]

⑨Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★Regarding the section of data set in step ⑥, refer to Reference ☆1.

■Specifying with bars

When using bars for specifying the section, set the start point (the bar where the extraction starts) and the end point (how many bars to be extracted).

■Specifying with locate points

When using locate points for specifying the section, set the start point (the locate point number where the extraction starts) and the end point (the locate point where the extraction is to end).

★If you keep pressing [ENTER] without setting the value of each parameter, all events in track 1, from the current position (before entering the edit mode) to the end are extracted and transferred to track 8, over exactly the same section.

★Depending on the edit track mode, the extracted data is transferred differently as follows :

REPLACE mode	All the events of the specified MIDI channel in the destination track are erased, being replaced by the extracted events.
MIX mode	The extracted song data is mixed with the events in the destination track.

★By setting the MIDI channel of the track to be extracted to the same number as the destination track, all the MIDI events except for the specified status in the specified MIDI channel can be erased.

Reference

☆ 1. P.96 EDIT

EDIT 6 TRANSPOSE

Function A certain portion of note event, or polyphonic key pressure messages, in any phrase track can be transposed.

Procedure

● From the stand – by condition of MODE 1,

①Select "TRANSPOSE" :
[EDIT] → [6] → [ENTER]

```
EDIT 6 TRANSPOSE
TRK 1-8  CH  ALL
```

②Specify the track to be transposed :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the MIDI channel to be transposed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the sound range to be transposed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Repeat)

⑤Specify the section to be transposed :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑥Execute :
[REC]

⑦Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★You can transpose the pitch in semi－tone steps, up or down two octaves (± 24).

■ Specifying with bars

When using bars for specifying the section, set the start point (the bar where the transposition starts) and the end point (how many bars to be transposed).

■ Specifying with locate points

When using locate points for specifying the section, set the start point (the locate point number where the transposition starts) and the end point (the locate point where the transposition ends).

★If you keep pressing [ENTER] without setting the value of each parameter, the transposition cannot be executed.

Note

★Any note number which has become less than zero (or more than 127) by transposition will be automatically changed to zero or 127, and cannot be returned to the original value.

EDIT 7 CHANGE VELO (Change Velocity)

Function This allows you to change the velocity messages of note events in the specified section of any phrase track.

Procedure

● From the stand – by condition of MODE 1,

①Select "CHANGE VELO" :
[EDIT] → [7] → [ENTER]

```
EDIT 7 CHANGE VELO
TRK 1-8   CH   ALL
```

②Specify the track whose velocity is to be changed :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the MIDI channel whose velocity is to be changed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the sound range where the velocity is to be changed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Repeat)

⑤Set the "MAGNIFY" (magnification) for the velocity change :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Set the Key Follow (KF) for the velocity change :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑦Set the "BIAS" for the velocity change :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑧Select one of the edit modes :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑨Specify the section where the velocity is to be changed :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑩Execute :
[REC]

⑦Leave this mode :
STOP

●The unit is returned to the stand – by condition of MODE 1.

Additions

★When using bars for specifying the section, set the start point (the bar where the change velocity starts) and the end point (how many bars will change velocity).

★When using locate points for specifying the section, set the start point (the locate point number where the change velocity starts) and the end point (the locate point where the velocity change ends).

★If you keep pressing ENTER without setting the value of each parameter, the velocity change cannot be executed.

The following is the conversion formula for the velocity change :

$$V = (V_0 - 64) \times MAGNIFY + \{KF \times (key\ \# - 64) + BIAS\} \times (\Delta t / SPNAN)^N + 64$$

V :	New velocity value (after)
Vo :	Previous velocity value (before)
MAGNIFY :	Magnification for the velocity change
KF :	Key Follow value at velocity change
BIAS :	Bias for the velocity change
N :	Conversion mode by KF and BIAS (0 = immediate, 1 = gradual)
Δ t :	Clock number from the editing start point to the note message
SPAN :	Total clock number in the entire section specified

When the MAGNIFY is larger than 1, the velocity change is emphasized, and when it is smaller than 1, the velocity change is supressed.

When the KF is larger than zero, higher sounds are emphasized, while lower sounds are emphasized when it is smaller.

When N = 1 (gradual) is selected, and the BIAS is larger than zero, Cresc (crescendo effect) is obtained. When the BIAS is smaller than zero, Dim (diminuendo effect) is obtained.

Notes

★Any note number whose velocity has become less than 1 (or more than 127) by the velocity change will be automatically changed to 1 or 127, and cannot be returned to the original value.

★The above calculation counts fractions of .5 and over as a unit, and removes the rest, therefore, the edited velocity may not return to the original value by taking the reverse calculation.

EDIT 8 CHANGE M. CH (Change MIDI Channel)

Function This function changes the MIDI channel in the specified section of events in any track.

Procedure

● From the stand – by condition of MODE 1,

①Select "CHANGE MIDI CH" :
[EDIT] → [8] → [ENTER]

②Specify the track whose MIDI channel is to be changed :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the original MIDI channel (before being edited) and a new MIDI channel (after being edited) :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Repeat)

④Specify the MIDI status whose MIDI channel is to be changed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑤Specify the range of the MIDI status whose MIDI channel is to be changed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Specify the section where the Change MIDI Channel is to be executed :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑦Execute :
[REC]

⑦Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★Regarding the section set in step 5, refer to Reference ☆2.

■Specifying with bars

When using bars for specifying the section, set the start point (the bar where the Change MIDI Channel starts) and the end point (how many bars will Change MIDI Channel).

■Specifying with locate points

When using locate points for specifying the section, set the start point (the locate point number where the Change MIDI Channel starts) and the end point (the locate point where the Change MIDI Channel ends).

★ If you keep pressing [ENTER] without setting the value of each parameter, all the events in all the tracks from the current position to the end will be changed to MIDI channel 1.

Note

★If you make two channels of data into the same MIDI channel, using the Change MIDI Channel function, they cannot be separated later. If you wish to change the MIDI channels only for playback, refer to Reference ☆1.

Reference

☆1. P.91 FUNC12 XMT CHANNEL
☆2. P.96 EDIT

EDIT 9 QUANTIZE

Function — This function quantizes (corrects) the timing of a certain portion of the note events in any phrase track.

Procedure

● From the stand – by condition of MODE 1,

①Select "QUANTIZE" :
[EDIT] → [9] → [ENTER]

②Specify the source track (to be quantized) and the destination track (where the quantized data is to be written) :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

③Specify the MIDI channel to be quantized :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Set the resolution, which is the shortest note used for quantization :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑤Specify the rate of the quantization :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Specify the section where the quantization is to be performed :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑦Execute :
[REC]

⑧Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★Any data existing in the specified section of the destination track will be erased.

■ Specifying with bars

When using bars for specifying the section, set the start point (the bar where the quantization starts) and the end point (how many bars to be quantized).

■ Specifying with locate points

When using locate points for specifying the section, set the start point (the locate point number where the quantization starts) and the end point (the locate point where the quantization ends).

★If you keep pressing [ENTER] without setting the value of each parameter, the entire song data in all the tracks from the current position (before selecting the edit mode) to the end will be quantized with the 16th note resolution.

★The quantizing Rate sets how much the note messages are to be moved from their original position toword the resolution. At 1.0, all note messages are moved to the basic position, and smaller values decrease the amount of movement. For instance, at 0.7, they move only 70% toward the basic position.

Notes

★Quantized song data cannot be returned to the original. Be sure to save the song data onto a disk before executing the quantization if you use the same track as a destination.

EDIT10 COPY

Function This function copies the events of a specified MIDI channel in a track to any position of the current song data.

Procedure

● From the stand – by condition of MODE 1,

①Select "COPY" :
[EDIT] → [1] → [0] → [ENTER]

```
EDIT10 COPY
SONG 1 ▶ SONG 1
```

②Specify the source song number :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

③Specify source track and destination track :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER] (Repeat)

④Select either copy mode (how to copy) :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑤Specify the MIDI channel to be copied :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Specify the section to be copied :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑦Specify the position in the destination.

⑧Specify the number of times the data is to be copied :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑨Execute :
[REC]

⑩Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

■Specifying with bars

When using bars for specifying the section, set the start point (the bar where the copying starts) and the end point (how many bars to be copied).

■Specifying with locate points

When using locate points for specifying the section, set the start point (the locate point number where the copying starts) and the end point (the locate point where the copying ends).

★If you keep pressing [ENTER] without setting the value of each parameter, all the events in all the tracks from the current position to the end will be copied to the end of the song data once.

★If the rhythm track is copied to a phrase track, the MIDI channel → key number assignment set in FUNC 5 and the gate time (resolution/2) corresponding to the resolution of each rhythm pattern will also be copied.

★Depending on the copy mode, the copying function is performed differently, as follows :

REPLACE mode : All the events of the specified MIDI channel in the destination track are erased, being replaced by the source events.

MIX mode : : The source events are mixed with the existing events in the destination track.

Notes

★The above procedure cannot copy the rhythm track in a song to another song. To use the rhythm track or rhythm patterns in a different song data, refer to Reference ☆2.

★The tempo track or rhythm track cannot be copied in the MIX mode.

★If you copy without the rhythm track, and the phrase track or the tempo track becomes longer than the rhythm track, a number of rest patternswill be added to the rhythm track, therefore, the copied data can be played up to the end.

★The copy function cannot be obtained between different types of tracks (e.g. between a phrase track and the tempo track, the rhythm track and the tempo track).

Reference

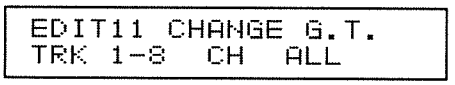
☆1. P.146 UTIL 4 R－PTN COPY
☆2. P.169 MODE 3 LINK

EDIT11 CHANGE G. T.(Change Gate Time)

Function　This function changes the gate times of the specified section in any phrase track.

Procedure　●From the stand－by condition of MODE 1,

①Select "CHANGE G. T." :
[EDIT] → [1] → [1] → [ENTER]



②Specify the track whose gate time is to be changed :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the MIDI channel whose gate time is to be changed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the sound range where the gate time is to be changed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Repeat)

⑤Set the "MAGNIFY" (magnification) for the gate time change :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Set the Key Follow (KF) for the gate time change :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑦Set the "BIAS" for the gate time change :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑧Select either of the editing modes :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑨Specify the section where the gate time is to be changed :

■Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑩Execute :
[REC]

⑦Leave this mode :
STOP

●The unit is returned to the stand－by condition of MODE 1.

Additions

■Specifying with bars

When using bars for specifying the section, set the start point (the bar where the change gate time starts) and the end point (how many bars will change gate time).

■Specifying with locate points

When using locate points for specifying the section, set the start point (the locate point number where the change gate time starts) and the end point (the locate point where the gate time change ends).

★If you keep pressing ENTER without setting the value of each parameter, the gate time change cannot be executed.

The following is the conversion formula for the gate time change :

$$G = G_0 \times MAGNIFY + \{KF \times (key\ \# - 64) + BIAS\} \times (\Delta t / SPNAN)^N$$

G :	New gate time value (after)
Go :	Previous gate time value (before)
MAGNIFY :	Magnification for the gate time change
KF :	Key Follow value of gate time change
BIAS :	Bias for the gate time change
N :	Conversion mode by KF and BIAS (0 = immediate, 1 = gradual)
Δ t :	Clock number from the editing start point to the note data
SPAN :	Total clock number in the entire section specified

Notes

★Any gate time which has become less than 1 (or more than 65535) by the gate time change will be automatically changed to 1 (or 65535), and cannot be returned to the original value.

★The above calculation counts fractions of .5 and over as a unit, and removes the rest, therefore, the edited gate times may not return to the original value by taking the reverse calculation.

EDIT12 SHIFT CLOCK

Function — This function shifts the timing of the events in the specified section of a phrase track or the tempo track using a clock pulse steps.

Procedure

● From the stand – by condition of MODE 1,

①Select "SHIFT CLOCK" :
[EDIT] → [1] → [2] → [ENTER]

```
EDIT12 SHIFT CLK
TRK 1-8   CH   ALL
```

②Specify the track whose clock is to be shifted :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the MIDI channel whose clock is to be shifted :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the MIDI status whose clock is to be shifted :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Repeat)

⑤Specify the range of the MIDI status whose clock is to be shifted :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Set the "BIAS" for the clock shift :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑦Specify the section where the clock is to be shifted :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑧Execute :
[REC]

⑨Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

■Specifying with bars

When using bars for specifying the section, set the start point (the bar where the clock shifting starts) and the end point (how many bars are to be clock shifted).

■Specifying with locate points

When using locate points for specifying the section, set the start point (the locate point number where the clock shift starts) and the end point (the locate point where the clock shift ends).

If you keep pressing [ENTER] without setting the value of each parameter, the clock shift cannot be executed.

★If the Bias is set to a "+" (or "−") value, the data is shifted forward (or backward).

Notes

★You cannot shift the data further than the head of a song. To shift further, insert a space bar at the beginning of the song. Refer to Reference ☆1.

★If you shift an event further than the end of the song data, the event will not be played. To play it, extend the rhythm track. Refer to Reference ☆1.

Reference

☆ 1. P.102 EDIT 3 INSERT MEAS

☆ 2. P.96 EDIT

EDIT13 DATA THIN

Function — This function removes certain portions of song data in a track using arithmetic. This allows you to use the internal memory more effectively.

Procedure

● From the stand – by condition of MODE 1,

①Select "DATA THIN" :
[EDIT] → [1] → [3] → [ENTER]

```
EDIT13 DATA THIN
TRK 1-8   CH    1
```

②Specify the track where the Data Thin is to be exectued :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the MIDI channel where the Data Thin is to be executed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Specify the MIDI status where the Data Thin is to be executed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Repeat)

⑤Specify the range of the MIDI status where the Data Thin is to be executed :
[Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Set the "lowest changing ratio" for Data Thin :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Value)
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Time)

⑦Specify the section where the Data Thin is to be executed :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specify the section)
[←] [→] or [ENTER] (Move the cursor)

■ Specifying with locate points
[LOC] (Select the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Set the locate point)
[←] [→] or [ENTER] (Move the cursor)

⑧Execute :
[REC]

⑨Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Additions

★Pitch bender and aftertouch messages from a MIDI keyboard will consume a large amount of memory in the MC. To save the memory, you can remove events without causing audible change. The optimum ratio used for this arithmetic processing varies depending on the performance. You may have to test several samples.

★Data which can use the Data Thin function have PAf, CC, CAf or PB.

★Regarding the section specified in step 5, refer to Reference ☆1.

★The Pitch bender values can be set from −8191 to 8192 (14bit), but the Microscope display shows these from −128 to 128 (8bit).
The Data Thin function processes the pitch bender data with 10 bit accuracy, therefore 1 corresponds to approximately 2.3 cent when the bend range of the sound source is set to 12 semi−tones (= 1 octave).

■Specifying with bars
When using bars for specifying the section, set the start point (the bar where the data thin starts) and the end point (how many bars the data thin is to be executed).

■Specifying with locate points
When using locate points for specifying the section, set the start point (the locate point number where the data thin starts) and the end point (the locate point where the data thin ends).

★If you keep pressing [ENTER] without setting the value of each parameter, the channel pressure data in all the phrase tracks will be removed (= Data Thin) from the current position to the end of the song data currently selected.

Reference

☆1 P.96 EDIT

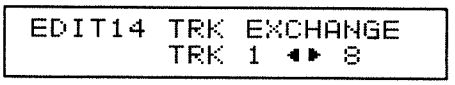
EDIT14 TRACK EXCHANGE

Function This function exchanges data between any two phrase tracks.

Procedure

● From the stand – by condition of MODE 1.

①Select "TRACK EXCHANGE" :
[EDIT] → [1] → [4] → [ENTER]



②Assign the tracks to be exchanged :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Execute :
[REC]

④Leave this mode :
[STOP]

● The unit is returned to the stand – by condition of MODE 1.

Addition ★The FUNC11 and FUNC12's settings are also exchanged.

EDIT15 MULTI EDIT

Function　This function includes 10 different single editing functions.

Procedure　●From the stand－by condition of MODE 1.

①Select "MULTI EDIT" :
[EDIT] → [1] → [5] → [ENTER]

```
EDIT15 MULTI EDIT
TRK 1-8   CH   ALL
```

②Assign the track where the Multi Edit is to be performed :
([Alpha Dial] , [Ten Key Pad] or [Track Select]) → [ENTER]

③Specify the MIDI channel where the Multi Edit is to be performed :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Select the mode for the Multi Edit :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

■When you have selected MODIFY (Data Modify)

⑤Assign the MIDI status to be modified :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Specify the section of the MIDI status to be modified :
([Ten Key Pad] or [Alpha Dial]) → [ENTER] (Repeat)

⑦Select Compand or Reverse :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑧If you have selected Compand, assign the magnification for Companding.
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

■When you have selected SHIFT # (Data Shift)

⑤Assign the MIDI status to be shifted :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑥Assign the value (number) of the source MIDI status :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑦Assign the value (number) of the destination MIDI status :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

⑧Specify the section of data where the Multi Edit is to be performed :

■Specifying with bars

[Alpha Dial] or [Ten Key Pad] (Specify the section)

[←] [→] or [ENTER] (Move the cursor)

■Specifying with locate points

[LOC] (Select the locate point setting display)

[Alpha Dial] or [Ten Key Pad] (Set the locate point)

[←] [→] or [ENTER] (Move the cursor)

⑨Execute :

[REC]

⑩Leave this mode :

[STOP]

●The unit is returned to the stand – by condition of MODE 1.

Additions ★When using bars for specifying the section, set the start point (the bar where the Multi Edit starts) and the end point (how many bars to be edited).

MODIFY (Data Modify ; multiply type editing)

A certain data in an event is compand or reversed.

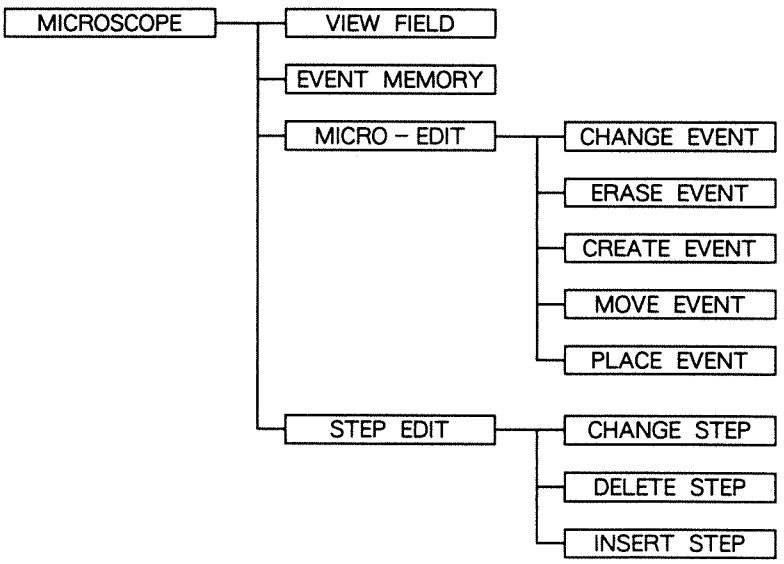
Value	Data	Description
NOTE	Note Number	The range can be set. NOTE and PAf's note numbers can be changed at the same time with the basic value 64.
VELO	Note On Velocity	The range can be changed with basic value "0"
PAf	Aftertouch Value	The range can be changed with basic value "0"
CC	Control Change Value	The range can be changed with basic value "0"
CAF	Aftertouch Value	The basic value is 0.
PB	Pitch Bend Value	The basic value is 0.

SHIFT # (Data Shift ; Addition type editing)

A certain data in an event is Shifted to change to a different Value.

Value	Data	Description
NOTE #	Note Number	Only the specified pitch is altered. NOTE and PAf note numbers are changed at the same time.
ALL Oct	Note Number	All the octaves are shifted by assigning any octave. NOTE and PAf note numbers are changed at the same time.
CC	Control change number	For example, this can be used to change the Expression data (CTRL # = 11) to Volume data (CTRL # = 7).
PG	Program Chang Number	When the same voice is used at several positions, all of them can be changed to a different voice at once.

MICROSCOPE



MICROSCOPE·····126
VIEW FIELD·····127
EVENT MEMORY·····129
μ EDIT/S – EDIT (Micro Edit/Step Edit) ·····130
μ EDIT 1 CHANGE Event ·····132
μ EDIT 2 ERASE Event·····133
μ EDIT 3 CREATE Event ·····134
μ EDIT 4 MOVE Event ·····135
μ EDIT 5 PLACE Event·····136
S – EDIT 1 CHANGE STEP ·····137
S – EDIT 2 DELETE STEP ·····138
S – EDIT 3 INSERT STEP ·····139

MICROSCOPE

This allows you to check events in a phrase track or tempo track in detail.

Procedure

●From the Microscope mode,

○ (Take the necessary procedure)

●The unit is returned to the Microscope mode.

Additions

★Specify a parameter with [←] [→], and move the cursor with the [Alpha Dial]

Cursor position	Function of the Alpha Dial
Track	Track selection
Measure	Shifting a bar
Beat	Shifting a beat
Clock	Shifting an event forward or backward (transmitting the current note event)

★No matter where the cursor resides, [RESET] or [SKIP] work like the as [Alpha Dial] when the cursor resides at the Clock position.

★You can shift tracks using the Track Selector Buttons no matter where the cursor is located.

★The note event is displayed, and meanwhile the note messages are transmitted from the MIDI OUT at a certain gate time. Refer to Reference ☆1 and ☆2 to set the transmitting conditions.

★The event currently shown can be transmitted by pussing [PLAY]. Regarding the note events, the Note ON event is transmitted when [PLAY] is pushed, and the Note OFF is transmitted when it is released. Refer to Reference ☆1 and 2 to set the transmitting conditions.

★By setting the View Field, specified events can be checked. Refer to Reference ☆3.

Note

★The rhythm tracks and rhythm patterns cannot use the Microcope function.

Reference

☆1. P.90 FUNC11 OUTPUT ASSIGN
☆2. P.91 FUNC12 TRANSMIT CH
☆3. P.127 MICROSCOPE VIEW FIELD

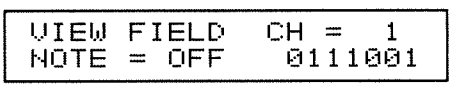
MICROSCOPE VIEW FIELD

This allows you to specify the kinds (View Field) of events which you wish to view in the Microscope display.

Procedure

● From the Microscope mode,

①Change to "MICROSCOPE VIEW FIELD" :
[MICROSCOPE]



②Specify the MIDI channel you wish to check :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Assign the area of the MIDI status you wish to check :
[Alpha Dial] → [←] [→] or [Ten Key Pad]

④Leave this mode :
[ENTER] or [MICROSCOPE]

● The unit is returned to the Microscope mode.

Additions

★The default value of the Miscroscope View Field is that only the note events in all channels are assigned.

0	ALL	All channels are shown in the display
1~16	1~16	Only the specified channels are shown.

★The View Field value of the MIDI status is displayed as shown below, and can be entered directly with the Ten Key Pad.

0	OFF	Shown in the display
1	ON	Not shown in the display

★The following seven parameters can be set in the Microscope View Field :

NOTE : Note Event
PAf : Polyphonic Aftertouch (Polyphonic Key Pressure)
CC : Control Change (0 – 121), Channel Mode Messages
PG : Program Change
CAf : Channel Aftertouch (Channel Pressure)
PB : Pitch Bend Change
EX : System Exclusive Messages

★In the Microscope mode, you can release the Microscope View Field (that is the condition where all events can be viewed) by rotating the [Alpha Dial] while holding [SHIFT] down.

★If you renew the configuration file with the View Field value you have set, the unit will be booted with the renewed data. Refer to Reference ☆1.

Notes

★The View Field will be automatically cancelled during step editing (S – EDIT).

★TU (Tune Request) will be shown only when the View Field is cancelled.

★The tempo track data is always shown in the display regardless of the View Field.

Reference

☆1. P.193 CNFG 7 SETUP UPDATE

EVENT MEMORY

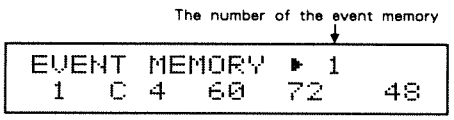
This memorizes events shown in the Microscope display, storing them in an event memory. There are nine event memories for the user, and one for the system.

Procedure

● From the Microscope mode,

①Cause the display to show the event to be memorized.

②Specify the number of the event memory :
[REC] → [Ten Key Pad] → [ENTER]



● The unit is returned to the Microscope mode.

Additions

★Event memories are classified as shown below form 0 to 9.

Memory Number	Event Memory	Description
0 (System)	The last event erased	Each time μ EDIT 2 is executed, a new Erase Event is written. (Non – user programmable). System exclusive cannot be memorized.
1 – 8 (For the user)	Events other than system exclusive	System exclusive cannot be written
9 (For the user)	System exclusive	Only system exclusive can be memorized. (up to 600 bytes)

★The data of an event memory can be PLACED (written) into a phrase track as many times as you like. Refer to Reference.

★The data in an event memory can be renewed by being re – registered.

★The data in an event memory will be retained until the unit is switched off.

Note

★Tempo track data cannot be written into an event memory.

Reference

☆1. P.136 μ EDIT 5 PLACE Event

μ EDIT / S – EDIT (Micro Edit / Step Edit)

There are eight different functions provided in this mode for editing an event. You can choose one of the following two types of editing modes :

■ Single Edit Mode
The unit is returned to the Microscope mode after editing one event.

■ Continuous Edit Mode
The unit continues to edit until the editing mode is cancelled.

Procedure

● From the Microscope mode,

① Select the Micro Edit/Step Edit function :

■ Micro Edit
[EDIT] → [Ten Key Pad] → [ENTER] (Single Edit Mode)
[EDIT] → [Ten Key Pad] → [ENTER] (Continuous Edit Mode)
(The Alpha Dial can also be used.)

■ Step Edit
[EDIT] → [Ten Key Pad] → [ENTER] (Single Edit Mode)
[EDIT] → [Ten Key Pad] → [ENTER] (Continuous Edit Mode)

○ (Editing Procedure)

○ [ENTER]

○ Cancel the Continuous Edit mode :
[MICROSCOPE]

● The unit is returned to the Microscope mode.

Addition

★ The difference between Micro Edit and Step Edit :
Micro Edit works on the specified events separately, therefore, other events are not affected (shifted).
Step Edit affects the other events by editing a certain event. The View Field setting is cancelled during Step editing, and the events that follow are all moved.

Notes

★μ EDIT 4 does not contain Continuous Edit Mode.

★During Micro or Step Edit mode, pressing [MICROSCOPE] will cancel the edit mode assigned to the event currently displayed and return to the Microscope mode.

★During editing, any value which has not yet entered can be returned to the previous value by pressing [CANCEL].

★In the Continuous Edit Mode, when the conditions required for editing are not fulfilled, the MC leaves the Edit mode automatically and returns to the Microscope mode.

μ EDIT 1 CHANGE Event

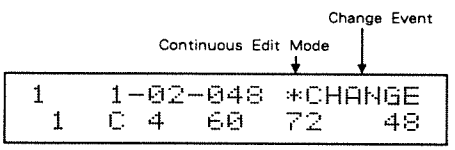
This function edits each parameter in an event.

Procedure

●From the Microscope mode,

①Cause the display to show the event to be edited :

②Select "CHANGE" :
[EDIT] → [1] → [ENTER] (Single Edit Mode)
[EDIT] → [1] → [ENTER] (Continuous Edit Mode)



③Move the cursor to the data you wish to edit, then change the value :
[Alpha Dial] or [Ten Key]

④To enter all the values set, enter the data situated at the far－right of the event to be changed.
[ENTER]

⑤When the Continuous Edit mode has been selected, cancel it :
[MICROSCOPE]

●The unit is returned to the Microscope mode.

Addition

★In the Continuous Edit mode, it is possible to enter the event by using [RESET] or [SKIP] regardless of the cursor position. When you use [RESET], it moves to the preceding event, and when [SKIP] is used, to the following event.

★CH.REST (rest data) is included as a note event. It is possible to change CH. REST to a note or vice versa.

Note

★This editing mode does not include Status Changing, such as changing aprogram change to a system exclusive. To make such changes, program the necessary events with μ－EDIT 3, then delete unneeded events with the μ EDIT 2.

★Exclusive messages exceeding 600 bytes cannot be edited.

μ EDIT 2 ERASE Event

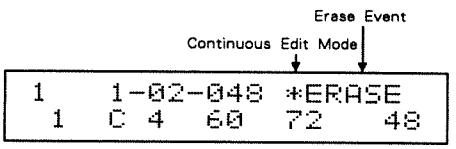
This function erases an event.

Procedure

●From the Microscope mode,

①Cause the display to show the event to be erased :

②Select "ERASE" :
[EDIT] → [2] → [ENTER] (Single Edit Mode)
[EDIT] → [2] → [ENTER] (Continuous Edit Mode)



③Execute.
[REC]

In the Continuous Edit mode, repeat step 3 as many times as necessary.

④When the Continuous Edit mode has been selected, cancel it :
[MICROSCOPE]

●The unit is returned to the Microscope mode.

Addition

★In the Continuous Edit mode, it is possible to move the event by using [RESET] or [SKIP] regardless of the cursor position. When you use [RESET], it moves to the preceding event, and when [SKIP] is used, to the following event, without erasing the event.

★The erased event is memorized in event memory [0].

Note

★System exclusive messages are not memorized in event memory [0] when being erased.

μ EDIT 3 CREATE Event

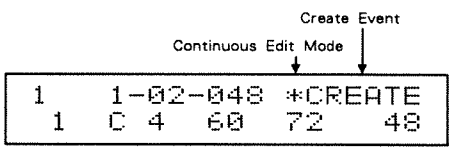
This function creates a new event. A chord can be entered using this funciton.

Procedure

● From the Microscope mode,

①Move the cursor to the position where you wish to create an event.

②Select "CREATE" :
[EDIT] → [3] → [ENTER] (Single Edit Mode)
[EDIT] → [3] → [ENTER] (Continuous Edit Mode)



③Specify the status of the event you wish to create :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Set the data in sequence to create an event.
([Alpha Dial] or [Ten Key Pad]) → [ENTER] (Repeat)

In the Continuous Edit mode, repeat step 4 as many times as necessary.

⑤When the Continuous Edit mode has been selected, cancel it :
[MICROSCOPE]

● The unit is returned to the Microscope mode.

Addition

★The default setting is that the status of the event to be created is "NOTE".

★Pressing [MIDI] can change the MIDI status, but any event not yet entered will be cancelled.

★If any event is currently shown, the created event will come after it.

Note

★System exclusive messages cannot be made more than 600 bytes.

μ EDIT 4 MOVE Event

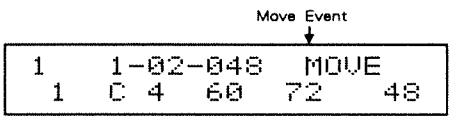
This function moves events within a track.

Procedure

●From the Microscope mode,

①Cause the display to show the event to be moved.

②Select "MOVE" :
[EDIT] → [4] → [ENTER] (Single Edit Mode)



③Assign the destination (measure/beat/clock) :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

④Entering the clock value will set the destination.

●The unit is returned to the Microscope mode.

Addition

★This function is valid only for Single Edit mode.

★The cursor is always located at the "clock" position. If you wish to use beat or measure to assign the destination, move the cursor using [←]. In this case, the destination cannot be set until the clock value is entered.

Note

★When moving the event into a different track, write the event into an event memory (or Erase the Event), then execute the Place Event process (μ EDIT 5).

μ – EDIT 5 PLACE Event

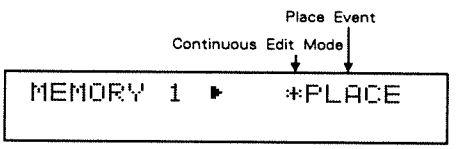
This places an event written in an event memory into a phrase track.

Procedure

●From the Microscope mode,

①Move the event to the position where you wish to place it.

②Select "PLACE" :
[EDIT] → [5] → [ENTER] (Single Edit Mode)
[EDIT] → [5] → [ENTER] (Continuous Edit Mode)



③Assign the number of the event memory which you wish to place :
([Alpa Dial] or [Ten Key]) → [ENTER]

When Continuous mode is used, repeat step 3 as many times as necessary.

④When the Continuous mode is selected, cancel it :
[MICROSCOPE]

●The unit is returned to the Microscope mode.

Additions

★When any event is currently shown, the event will be placed after it.

S – EDIT 1 CHANGE Step

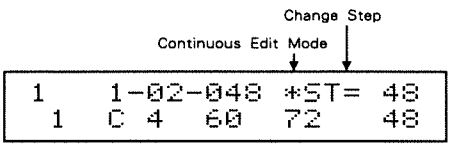
This changes the step time of an event.

Procedure

●From the Microscope mode,

①Cause the display to show the event whose step time you wish to change. If the step time is larger than 1000 ("FAR" is shown) move to a position so that it becomes less than 999.

②Select "ST" :
[EDIT] → [1] → [ENTER] (Single Edit Mode)
[EDIT] → [1] → [ENTER] (Continuous Edit Mode)



③Change the step time :
([Alpa Dial] or [Ten Key]) → [ENTER]

When the Continuous mode is used, repeat step 3 as many times as necessary.

④When the Continuous Edit mode is selected, cancel it :
[MICROSCOPE]

●The unit is returned to the Microscope mode.

Addition

★Executing the Change Step function will cancel the View Field, and all the events (only in the specified track) which follow the edited event will be shifted.

★In the Continuous mode, you can use [SKIP] or [RESET] for moving an event.

Note

★If "FAR" or "END" is shown at the step time, the CHANGE Step cannot be executed. If this happens in the Continuous Edit mode, the MC automatically leaves this mode.

S – EDIT 2 DELETE Step

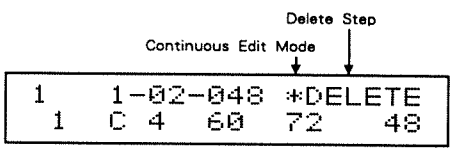
This deletes an event including the step time data.

Procedure

●From the Microscope mode,

①Cause the display to show the event you wish to delete.

②Select "DELETE" :
EDIT → 2 → ENTER (Single Edit Mode)
EDIT → 2 → ENTER (Continuous Edit Mode)



③Delete the event :
REC

When the Continuous mode is used, repeat steps 3 as many times as necessary.

④When the Continuous mode is selected, cancel it :
MICROSCOPE

●The unit is returned to the Microscope mode.

Addition

★In the Continuous Edit mode, the event can be shifted by using RESET or SKIP regardless of the cursor position. RESET shifts to the preceding event and SKIP moves to the next event, without erasing the step.

★Executing the Delete Step function will cancel the View Field settings, and all the events (only in the specified track) which follow the edited event will be shifted.

Note

★The deleted event is not memorized in event memoty 0.

S – EDIT 3 INSERT Step

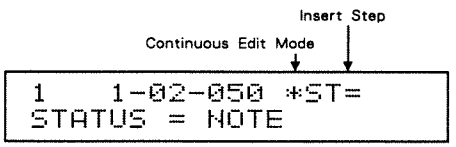
This inserts an event, including the step time data, into a phrase track.

Procedure

● From the Microscope mode,

①Move the event to the position where you wish to insert.

②Select "ST (Insert Step)" :
[EDIT] → [3] → [ENTER] (Single Edit Mode)
[EDIT] → [3] → [ENTER] (Continuous Edit Mode)



③Assign the status of the event to be inserted :
([Alpa Dial] or [Ten Key]) → [ENTER]

④Set the data needed for the event in sequence :
([Alpa Dial] or [Ten Key]) → [ENTER]

⑤Set the step time of the event to be inserted :
([Alpa Dial] or [Ten Key]) → [ENTER]

When the Continuous mode is used, repeat steps 3 to 5 as many times as necessary.

⑥When the Continuous mode is selected, cancel it :
[MICROSCOPE]

● The unit is returned to the Microscope mode.

Addition

★Executing the Insert Step function will cancel the View Field, and all the events (only in the specified track) which follow the edited event will be shifted.

★The default status of the event to be inserted is NOTE.

★Pressing [MIDI] can change the MIDI status, but cancels any event which has not been entered yet.

★To insert more than one event at the same time, set the step time to zero.

★In the Continuous mode, pressing [SKIP] or [RESET] can move the position without inserting steps.

★When any event is currently shown, the inserted event will come before it.

UTILITY

UTILITY ····· 142
UTIL 1 SONG DELETE ····· 143
UTIL 2 TIME CALC (Time Calculation) ····· 144
UTIL 3 FUNCTION COPY ····· 145
UTIL 4 R – PTN COPY (Rhythm Pattern Copy) ····· 146
UTIL 5 SONG EXECHANGE ····· 147
UTIL 6 DATA CHECK ····· 148
UTIL 7 DATA REDUCE ····· 150
UTIL 8 TUNE ····· 151

UTILITY

This mode contains eight utilities such as editing a song, tuning the musical instrument used, etc.

Procedure

● From the Stand – by mode of MODE 1,

① Select UTILITY.
UTIL → Ten Key Pad → ENTER
:
○ (Take the necessary procedure)
:
○ STOP

● The unit is returned to the Stand – by condition of MODE 1.

Notes

★When entering a row of numbers, you may be able to set the value directly with the Ten Key Pad.

★From any mode other than the Stand – by condition of MODE 1, such as EDIT, you cannot enter the Utility Setting mode.

UTIL 1 SONG DELETE

This deletes song data from the internal memory.

Procedure

●From the Stand – by condition of MODE 1,

①Select "SONG DELETE" :
[UTIL] → [1] → [ENTER]

```
UTIL 1 SONG DELETE
SELECT SONG▶1.3**6.8
```

②Specify the song number/s you wish to delete :
[Ten Key Pad] → [ENTER]

③Execute.
[REC]

④Leave this mode :
[STOP]

●The unit is returned to the Stand – by condition of MODE 1.

Additions

★If you do not specify any song number, the song number currently in use will be deleted.

★The following are the numbers and signs shown in the display during song number setting :

Display	Description
.	No song data exists at the specified song number, and therefore cannot be deleted.
*	"Delete" is not assigned to the relevant song number.
1~8	"Delete" is assigned to the relevant song number.

★While you are specifying a song number, you can directly set whether to delete the song or not using the Ten Key Pad.

Ten Key Entry	Description
1~8	Select or cancel the song number to be deleted.
0	Select or cancel all the song numbers which contain song data.

★The values of the MIDI and Configuration parameters do not change in this mode.

UTIL 2 TIME CALC (Time Calculation)

This allows you to check the time needed for playing a certain section of the current song.

Procedure

● From the Stand – by condition of MODE 1,

①Select "TIME CALC" :
[UTIL] → [2] → [ENTER]

```
UTIL 2 TIME CALC
FROM M=    1 FOR ALL
```

②Specify the section to be calculated :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specifying the section)
[←] [→] or [ENTER] (Moving the cursor)

■ Specifying with locate points
[LOC] (Selecting the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Setting the locate point)
[←] [→] or [ENTER] (Moving the cursor)

The data is "time – calculated" according to the tempo set in the Stand – by condition.

```
UTIL 2 TIME CALC
     5m 22.0s  ♩=120
```

③Leave this mode :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Additions

★When the tempo is changed in the Tempo Track, the changes will also be calculated.

★If you change the tempo with the [Alpha Dial] while the performance time is displayed, the display changes to the new time, with the edited tempo.

■ Specifying with bars
When using bars for specifying the section, set the start point (the bar where the Arithmetic starts) and the end point (how many bars the Arithmetic is to be executed).

■ Specifying with locate points
When using locate points for specifying the section, set the start point (the locate point number where the Arithmetic starts) and the end point (the locate point where the Arithmetic ends).

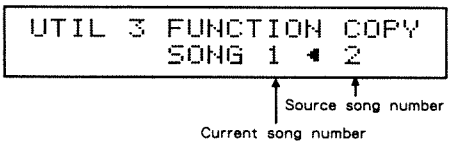
UTIL 3 FUNCTION COPY

This copies the function settings of a song to another song.

Procedure

● From the Stand – by mode of MODE 1,

①Select "FUNCTION COPY" :
[UTIL] → [3] → [ENTER]



②Specify the source song number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Execute.
[REC]

④Leave this mode :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Additions

★The following are the functions which can be copied :

FUNC 1 SYNC CLOCK
FUNC 2 METRONOME
FUNC 4 RHYTHM VELO (Rhythm Velocity)
FUNC 5 RHYTHM INST (Rhythm Instrument)
FUNC 9 BASIC TEMPO
FUNC 11 OUTPUT ASSIGN
FUNC 12 XMT CHANNEL (Transmit Channel)
FUNC 13 NOTE NAME
FUNC 14 SONG LOG

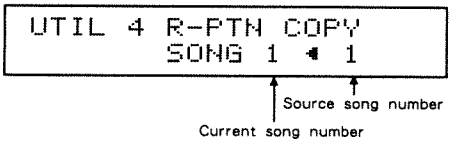
UTIL 4 R – PTN COPY (Rhythm Pattern Copy)

This copies the rhythm pattern data in a song to another song.

Procedure

● From the Stand – by condition of MODE 1,

①Select "R – PTN COPY" :
[UTIL] → [4] → [ENTER]



②Specify the source song number :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Execute :
[REC]

④Leave this mode :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Addition

★Any rhythm pattern written in the source and destination songs will be erased by executing this copy function. However, any rhythm pattern which does not exist in the source song will be retained.

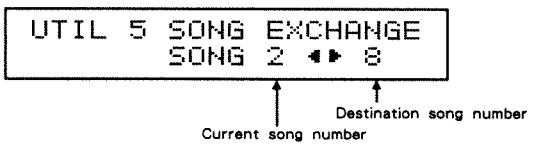
UTIL 5 SONG EXCHANGE

This swaps a song with another song.

Procedure

● From the Stand – by condition of MODE 1,

①Select "SONG EXCHANGE" :
[UTIL] → [5] → [ENTER]



②Specify the song numbers of data to be swapped :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Execute Song Exchange :
[REC]

④Leave this mode :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

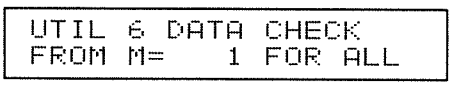
UTIL 6 DATA CHECK

This allows you to check data in a specified section of the song data, displaying the current condition of each status. This function also indicates if the phrase track is longer than the rhythm track.

Procedure

● From the Stand – by condition of MODE 1,

①Select "DATA CHECK" :
[UTIL] → [6] → [ENTER]



②Specify the section where you wish to check data, then execute the Data Check :

■ Specifying with bars
[Alpha Dial] or [Ten Key Pad] (Specifying the section)
[←] [→] or [ENTER] (Moving the cursor)

■ Specifying with locate points
[LOC] (Selecting the locate point setting display)
[Alpha Dial] or [Ten Key Pad] (Setting the locate point)
[←] [→] or [ENTER] (Moving the cursor)

③Specify the track and parameters to be checked :
[←] [→] (Shift the cursor)
[Alpha Dial] (Select a track/status)

④Leave this mode :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Addition

■ Specifying with bars
When using bars for specifying the section, set the start point (the bar where the Check starts) and the end point (how many bars the Check is to be executed).

■ Specifying with locate points
When using locate points for specifying the section, set the start point (the locate point number where the Check starts) and the end point (the locate point where the Check ends).

★The result of the Data Check will be classified as shown below :

Checking parameter	Display and Description
WHOLE (all the statuses)	The relevant status indicates the recording MIDI channel.
NOTE	
PAf (polyphonic aftertouch)	
CC (control change)	
PG (program change)	
CAf (channel aftertouch)	
PB (pitch bend)	
MODE (mode messages)	
EX (system exclusive messages)	Checks if data is recorded. Included : data is recorded Not found : data is not recorded
TU (Tune request)	
SPAN	Check if the phrase track is longer than the rhythm track. Normal : it is not longer than the rhythm track Longer than TRK – R : it is longer than the rhythm track

UTIL 7 DATA REDUCE

This allows you to erase any rest note data you have previously entered, or correct data if the phrase track is longer than the rhythm track.

Procedure

●From the Stand – by condition of MODE 1,

①Select "DATA REDUCE" :
[UTIL] → [7] → [ENTER]

```
UTIL 7 DATA REDUCE
REDUCE CH.REST  ON
```

②Select whether to delete the rest note data or not :
([Alpha Dial] or [0] / [1]) → [ENTER]

③Select whether to correct the length of the phrase track :
([Alpha Dial] or [0] / [1]) → [ENTER]

④Execute :
[REC]

⑤Leave this mode :
[STOP]

●The unit is returned to the Stand – by condition of MODE 1.

Addition

★You can delete the rests (CH.REST) written in step recording or microscope.

★Correct the length of the phrase track if it is longer than the rhythm track.

★If the speed of movement in the microscope display is slow, for instance, after a large number of events have been edited, you may improve it by using Data Reduce.

UTIL 8 TUNE

This transmits a Tune Request and Note On (A4 = key number 69) messages on all MIDI channels. All the connected instruments can be tuned at the same time.

Procedure

● From the Stand – by condition of MODE 1,

①Select "TUNE" :
[UTIL] → [8] → [ENTER]

```
UTIL 8 TUNE
Press PLAY  to tune
```

②Transmit sustained or non – sustained sound :
[PLAY] (sustained sound)
[PLAY] (non – sustained sound)

③Stop transmitting the sound :
[PAUSE]

④Leave the Tuning mode :
[ENTER]

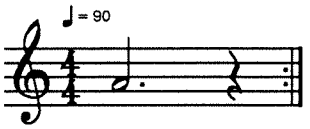
⑤Stop the procedure :
[STOP]

● The unit is returned to the Stand – by condition of MODE 1.

Addition

★Transmit non – sustained sound in the interval as shown below :

Note on : 2.0 seconds, Note off : 0.67 seconds



★The Velocity of the Note On is 64 (medium value), and therefore can be used for adjusting the mix level, or for MIDI and audio connections.

REAL TIME MODIFY

REAL TIME MODIFY 154
MODIFY FIELD 156
REWRITE VELOCITY 157
REWRITE STEP 158

REAL TIME MODIFY

The rhythm or velocity of the data recorded in a phrase track can be edited while playing it back.

Procedure

■ Preparing to Real – time Modify in the stand – by condition

①Set the Record Mode to "REAL".

②Go to the position where you wish start modification.

● Stand – by mode

③Set to the Modify stand – by mode :

[REC]

```
Press PLAY >> MODIFY
M=   1   ♩=120  REAL
```

● Call the Modify Field display if you wish to change the Modify Field :

[REC]

```
REWRITE VELO ▶TRK 1
M=   1    4/4   CH=ALL
```

④Select the track to be modified with the Track Select Button :

⑤Start the modification :

[PLAY]

```
SONG 1 Modifying  1
M=   1   ♩=120 [ 120]
```

⑥Leave the Modify mode :

[STOP]

● The unit is returned to the stand – by mode.

Additions

★If FUNC 1 is set to other than INTERNAL, do as follows. Refer to Reference.

■MIDI

②Go to the position where you wish to start modifying on the master device (if the master device does not transmit Song Position Pointer, you must match the current positions of the two devices).

⑤Start the master device.

⑥Stop the master device.

[STOP] and [PLAY] on the MC function normally, but during MIDI sync modification, Start/Stop control is not performed on a slave device.

■TAPE

②Go to the head of the song data (M = 1).

●Start the tape where the FSK signal is recorded.

⑤While the leader signal is still being heard,
[PLAY]

⑥Modify does not stop automatically when the tape is finished :
[PLAY]

Reference

☆1. P.73 FUNC 1 SYNC CLOCK

MODIFY FIELD

Specifies the Modify Mode and Modify Track.

Procedure

●From the Stand – by condition,

①Set to the MODIFY stand – by condition :
[REC]

②Call the Modify Field display :
[REC]

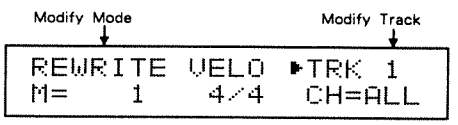
③Set the Modify Mode
([Alpha Dial] or [Ten Key]) → [ENTER]

④Select the track to be modified :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

●The unit is returned to the Modify stand – by condition.

Additions

★The Modify Field display will show the following parameters :



★The following two Modify Modes are available :
1. REWRITE VELO (Rewrite velocity)
2. REWRITE STEP (Rewrite step time)

★Using the Track Select Button, you can select a recording track even in the Modify stand – by mode, or when the cursor does not reside at the track to be modified in the Modify Track Field display.

Notes

★The Modify MIDI channel can be set as explained in the Reference section.

★The tempo track cannot be modified.

Reference

☆1. P.167 MIDI 1 RCV CHANNEL

REWRITE VELOCITY

The velocity of the data recorded in a phrase track can be rewritten using real time recording.

Procedure

①Set to the Modify stand－by condition :
[REC]

②Select the Modify Field display :
[REC]

③Set the Modify Mode to "REWRITE VELO".
([Alpha Dial] or [1]) → [ENTER]

④Select the track to be modified :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

⑤Start modifying :
[PLAY] or ([PAUSE] → [PLAY])

⑥Leave this mode :
[STOP]

●The unit is returned to the stand－by condition.

Addition

★Using the following MIDI messages, the velocity value can be entered.

MIDI message for controlling data	Variable range of data	Variable range of the velocity	The value that makes the velocity 64
NOTE NUMBER	36～ 84 (C2 ～ C6)	4 ～124 (C4)	64
VELOCITY	1 ～ 127	1 ～ 127	64
CC	0 ～ 127	1 ～ 127	64
PB	－128 ～ 128	1 ～ 127	0

Reference

☆1. P.192 CNFG 6 MIDI CONTROL

REWRITE STEP (Rewrite Step Time)

The rhythm (step time) recorded in a phrase track can be rewritten using real time recording.

Procedure

①Set to the Modify stand – by mode :
[REC]

②Change to the Modify Field display :
[REC]

③Set the Modify Mode to "REWRITE STEP" :
([Alpha Dial] or [2]) → [ENTER]

④Select the track to be modified :
([Alpha Dial] , [Ten Key] or [Track Select]) → [ENTER]

●From the Modify stand – by condition :

⑤Start modifying :
[PLAY] or ([PAUSE] → [PLAY])

⑥Leave this mode :
[STOP]

●The unit is returned to the stand – by mode.

Additions

★You can modify by playing the keyboard with one finger while listening to the data. You can use any range on the keyboard.

★CNFG 6 (see Reference ☆1) is set so that the gate time or velocity cannot be rewritten by changing the step time. The default is that the gate time and velocity are changed at the same time.

Note

★This function cannot extend the length of a song. To extend, see Reference ☆2.

Reference

☆ 1. P.191 CNFG 5 REWRITE MODE
☆ 2. P.102 EDIT 3 INSERT MEAS

MODE 2

MODE 2 DISK ····· 160
1 LOAD ····· 161
2 SAVE ····· 163
3 DELETE ····· 165
4 RENAME ····· 166
5 VERIFY ····· 167

MODE 2 DISK

This function allows you to save or load song data between the internal memory and a disk, and also to arrange song files on a disk.

Procedure

●From the Stand – by condition of MODE 2,

```
MODE 2 DISK
1 LOAD    [SONG FILE]
```

① (Select the function)
:
② (Take the necessary procedure)
:
○ (Execute)

●When finished, the unit is returned to the Stand – by condition of MODE 2.

Addition

★In this mode, the following five functions are valid.

Function Name	Function
Load	Internal Memory ← Disk
Save	Internal Memory → Disk
Delete	Delete a song file on a disk
Rename	Change the song title on a disk
Verify	Compare the song data in the internal memory with that on the disk

Note

★Read the owner's manual of the hardware to study how to handle disks.

1 LOAD

The song file in a disk can be loaded to the internal memory.

Procedure

● From the Stand – by condition of MODE 2,

①Set the protect tab on the disk to PROTECT, and insert the disk in to the disk drive.

②Select the "LOAD" function :
[1] → [ENTER]

```
LOAD SONG FROM DISK
SELECT SONG▶1.......
```

③Assign the destination song number :
[Ten Key Pad] → [ENTER]

```
LOAD 1.......◀ DISK
SONG 1◀
```

④Assign the song file to be loaded (source song file) :
[Alpha Dial] → [ENTER]

⑤Execute :
[LOAD]

● The unit is returned to the Stand – by condition of MODE 2.

Additions

★Selecting the Load function will automatically assign the smallest song number with no data stored. If there is no empty song, no song number will be assigned.

★The Song Number Selection Display consists of the following parameters :

Display	Description
.	"Load" is not assigned to the relevant song number. (No song data exists in that song number.)
*	"Load" is not assigned to the relevant song number. (Song data exists in the song number.)
1 – 8	"Load" is assigned to the relevant song number.

★In the Song Number Selection Display, the number assigned with the Ten Key Pad will be entered without using the Enter key. So, you do not need to push the Enter key each time you renew the number.

Ten Key Pad	Description
1 – 8	Selecting or cancelling a song number.
0	Selecting all the song numbers.
[0]	Cancelling all the song numbers.

★To load more than one song file at the same time, assign the song numbers in step ③, then push [ENTER] instead of step ④.

★In the Song Number Selection Display, you can use [←] [→] for changing the song file settings.

★In the Song Number Selection Display, even if you fail to assign song files to all the selected song numbers, pressing [LOAD] will load the song files assigned so far.

Reference ☆1. P.56 LOAD CURRENT SONG

2 SAVE

The song data in the internal memory can be saved to a disk.

Procedure

● From the Stand – by mode of MODE 2,

①Set the protect tab on the disk to WRITE, and insert the disk in to the disk drive.

②Select "SAVE" :
[2] → [ENTER]

```
SAVE SONG ONTO DISK
SELECT SONG▶1.......
```

③Specify the song number you wish to save :
[Ten Key Pad] → [ENTER]

```
SAVE 1.......▶ DISK
SONG 1▶
```
Song Title

④Give a song title to the song data you have specified :
[Alpha Dial] or [Ten Key Pad] (Select characters)
[←] [→] (Move the cursor)

⑤Enter the title :
[ENTER]

⑥Execute :
[SAVE]

● The unit is returned to the Stand – by condition of MODE 2.

Additions

★The Song Number Selection Display consists of the following parameters :

Display	Description
.	"Save" cannot be assigned to the relevant song number. No song data exists in that song number.
*	"Save" is not assigned to the relevant song number. Song data exists in the song number.
1 – 8	"Save" is assigned to the relevant song number.

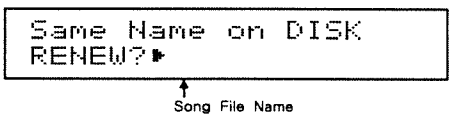
★In the Song Number Selection Display, the number assigned with the Ten Key Pad will be entered without using the Enter key. So, you do not need to push the Enter key each time you renew the number.

Ten Key Pad	Description
1 – 8	Pressing each key will select or cancel the song number.
0	Selects all songs that contain song data. / When all songs have been selected, only the current song number will be selected.

★Selecting the Save function will automatically assign the song number displayed in MODE 1.

★To save more than one song file at the same time, assign the song numbers in step ③, then push [ENTER] instead of step ④.

★If the disk stores a song file with the same name, the display will respond as shown below after step ④. To save both song files, change the song file name, then push [ENTER] and go to the next step.



Notes

★If more than one song has the same song title, they cannot be saved at the same time.

★Any song data without a song title cannot be saved. Refer to Reference ☆2.

Reference

☆1. P.57 SAVE CURRENT SONG
☆2. P.76 FUNC 3 SONG TITLE

3 DELETE

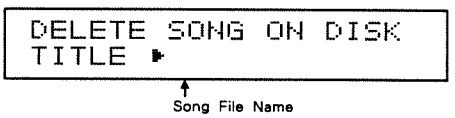
This function deletes a song file on a disk.

Procedure

● From the Stand – by condition of MODE 2,

①Set the protect tab on the disk to WRITE, and insert the disk in to the disk drive.

②Select "DELETE" :
[3] → [ENTER]



③Assign the song file to be deleted :
[Alpha Dial] → [ENTER]

④Execute :
[SAVE]

● The unit is returned to the Stand – by condition of MODE 2.

Addition

★Only one song file can be deleted at a time.

4 RENAME

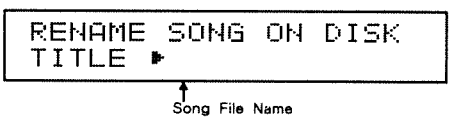
This function renames a song file on a disk.

Procedure

● From the Stand – by condition of MODE 2,

①Set the protect tab on the disk to WRITE, and insert the disk in to the disk drive.

②Select "RENAME" :
[4] → [ENTER]



③Assign the song file to be renamed :
[Alpha Dial] → [ENTER]

④Change the name of the song file you have specified :
[Alpha Dial] or [Ten Key Pad] (Select characters)
[←] [→] or [ENTER] (Move the cursor)

⑤Execute :
[SAVE]

● The unit is returned to the Stand – by condition of MODE 2.

Addition

★Only one song file can be renamed at a time.

Note

★When the disk contains a song file that has the same song title you have renamed, the renaming cannot be executed.

5 VERIFY

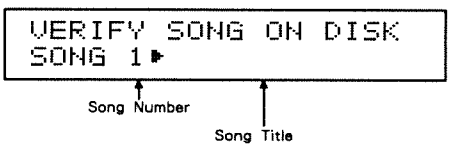
This function verifies song data in the internal memory with a song file on a disk.

Procedure

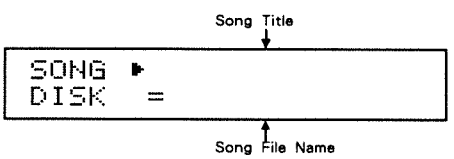
●From the Stand – by condition of MODE 2,

①Set the protect tab on the disk to WRITE, and insert the disk in to the disk drive.

②Select "VERIFY" :
[5] → [ENTER]



③Assign the song number to be verified :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]



④Assign the song file to be verified :
[Alpha Dial] → [ENTER]

The result of the verification is displayed.

⑤Leave the Verify mode :
[STOP]

●The unit is returned to the Stand – by condition of MODE 2.

Addition

★Only one song can be verified at a time.

★The Verify function can verify any data except the song title.

★The display shows "SONG VERIFIED" or "SONG DIFFERS" depending whether the data is correct or not.

MODE 3

MODE 3 LINK ·····170
LINK PROGRAM ·····171

MODE 3 LINK (Song Link)

This links more than one song together, making one song.

Procedure

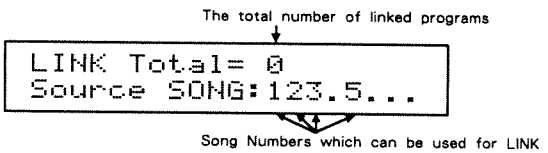
①Load the song files to be linked in MODE 2.

②Turn to MODE 3, and set the order of the songs to be linked.

③Return to MODE 2 and save the linked data onto a disk.

Additions

Mode 3 Stand – by Display



★When the LINK function is executed, the rhythm patterns in each song data will be automatically rearranged, therefore, the rhythm pattern numbers will differ from the numbers.

Notes

★If you turn to the mode other than MODE 3 before exectuing the Linking, the order of the linking you have set will be erased

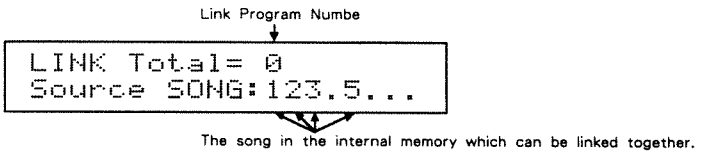
★In the Stand – by condition of MODE 3, the Available Memory function can be used only when the order of the linking has not been set.

LINK PROGRAM

This sets the order of the songs to be linked.

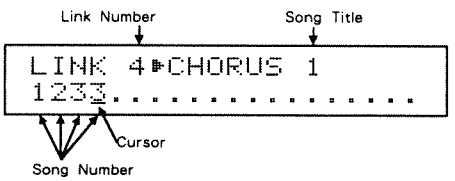
Procedure

● From the Stand – by mode of MODE 3,



①Select the Link Programming mode :

[REC]



②Set the song numbers in the sequence you like :

[Ten Key Pad] → [ENTER] (Repeat)

③Execute :

[EIDT] → [ENTER] → [STOP]

● The unit is returned to the Stand – by condition of MODE 3.

Additions

★If you push [STOP] during Link Programming, the unit will return to the Stand – by condition of MODE 3. However, the order of the songs you have set is not erased.

★In the Link Programming Display, the following functions are available :

[←] [→]	Move the cursor
[PAUSE] + [←] → [ENTER]	Delete the song number at the cursor position.
[PAUSE] + [→] → [Ten Key Pad] → [ENTER]	Assign the song number to the cursor position with the Ten Key Pad.
[SKIP]	All the song numbers stored after the cursor position is deleted.
[ENTER]	Song numbers are deleted.
[CANCEL]	Cancel the insertion or deletion (before [ENTER] is pressed).

★The maximum number of songs to be linked is 20. The same song number can be used many times within this range.

Notes

★When the Linking is executed, the linked song data is written into song number 1, erasing any previous song data stored there.

★Before executing, the unit checks whether the Linking is possible or not. If linking cannot be executed, a warning message will be shown in the display.

MODE 4

MODE 4 DISK UTILITY 174
INITIALIZE (Disk Initialize) 175
BACK UP (Disk Backup) 177
XFER (Song File Transfer) 178
CONVERT (Song Data Convert) 179
DISK NAME (Disk Name) 180
RESTART (Restart) 181

MODE 4 DISK UTILITY (Disk Utility)

This function covers operations concerning disks, such as making a system disk, and disk backup.

Procedure

●From the Stand – by condition of MODE 4,

① (Select the function)
:
② (Take the necessary procedure)
:
○ (Execute)

○ [STOP]

●The unit is returned to the Stand – by condition of MODE 4.

Addition

★In this mode, the following six functions can be used.

Function Name	Description
Initialize 1 Initilaize 2	Initializing a disk, making a system disk Initializing a disk, making a disk for saving song data.
Backup	Copying a disk
Transfer	Copying all song files on a disk
Data Convert	Converting the song files programmed on MRC for SUPER – MRC.
Disk Name	Naming a disk.
Restart	Re – booting the unit with the system program.

Note

★To execute the function, the unit may have to erase the entire song data in the internal memory. Therefore, before selecting MODE 4, be sure to save the song data onto a disk.

Reference

☆1. P.163 MODE 2 SAVE

1 INITIALIZE (Disk Initialize)

This function initializes a brand new disk to make a SUPER－MRC system disk, or a disk for song data.

Procedure 1 ●From the Stand－by condition of MODE 4,

①Select "INITIALIZE" :
[1] → [ENTER]

```
1>Make SYSTEM DISK
2 Make DATA DISK
```

②Assign the System Disk mode :
[1] → [ENTER]

This procedure will erase any song data in the internal memory. However, before erasing data, the display asks you if it is OK to do so.

```
Clear SONG data. OK?
Yes:ENTER    NO:STOP
```

③Erase the song data in the internal memory :
[ENTER]

④Set the protect tab on the disk to be initialized to WRITE, insert the disk into the disk drive, then execute initialization :
[ENTER]

⑤Set the protect tab on the system disk to PROTECT, insert it into the disk drive, then load the system program :
[ENTER]

⑥Set the protect tab on the disk to be initialized to WRITE and insert it into the disk drive, then save the system program :
[ENTER]

On the MC－500/300, repeat steps 5 and 6 until the following display (Complete Display) appears.

⑦To initialize another disk, repeat from step 4.
[ENTER]

⑧Leave the Initialize mode :
[STOP]

●The unit is returned to the Stand－by condition of MODE 4.

Procedure 2 ●From the Stand – by condition of MODE 4,

①Select "INITIALIZE" :
[1] → [ENTER]

```
1>Make SYSTEM DISK
2 Make DATA DISK
```

②Select the Data Disk mode :
[2] → [ENTER]

③Set the protect tab on the disk to be initialized to WRITE, then insert the disk into the disk drive to initialize it :
[ENTER]

④Leave the Initialize mode :
[STOP]

●The unit is returned to the Stand – by condition of MODE 4.

Additions ★If the disk you wish to initialize has been used with an MC – 500/MC – 300/MC – 500MKII or S – 50/S – 550, the following display appears after step 4 in Procedure 1, or step 3 in Procedure 2, so simply press [ENTER].

```
Remake into S-MRC?
Yes:ENTER    NO:STOP
```

★A data disk can be made without the song data in the internal memory being erased.

Notes ★When making a system disk, all the song data in the internal memory is erased.

★A disk initialized (formatted) with a wardprocessor or computer (except when it features the standard specifications) will be auto matically initialized without any warning indication.

2 BACK UP (Disk Backup)

This makes a backup disk, by copying the data, including the system program and all song files.

Procedure

● From the Stand – by condition of MODE 4,

①Select "BACK UP" :
[2] → [ENTER]

This procedure will erase any song data in the internal memory. However, before erasing data, the display asks you if it is OK to do so.

```
Clear SONG data. OK?
Yes:ENTER     NO:STOP
```

②Erase the song data in the internal memory :
[ENTER]

③Set the protect tab on the source disk to PROTECT, and insert the disk into the disk drive, then load the data :
[ENTER]

④Set the protect tab on the destination disk to WRITE, and insert the disk into the disk drive, then save the data :
[ENTER]

⑤Repeat steps 3 and 4 until the display responds as shown below :

```
BACK UP Complete!
Press STOP
```

[STOP]

● The unit is returned to the Stand – by condition of MODE 4.

Additions

★If the source disk has been used with an MC – 500/MC – 300/MC – 500MKII or S – 50/S – 550, the following display appears after step 4, so simply press [ENTER] .

```
Remake into S-MRC?
Yes:ENTER     NO:STOP
```

Notes

★When making a backup disk, all the song data in the internal memory is erased.

3 XFER (Song File Transfer)

This function copies all the song files on a disk to another disk, retaining any song data of a different file name on the destination disk.

Procedure

● From the Stand – by condition of MODE 4,

①Select "XFER" :
[3] → [ENTER]

This procedure will erase any song data in the internal memory. However, before erasing the data, the display asks you if it is OK to do so.

```
Clear SONG data. OK?
Yes:ENTER    NO:STOP
```

②Erase the song data in the internal memory :
[ENTER]

③Set the protect tab on the source disk to PROTECT, and insert the disk into the disk drive, then load the song files on the disk :
[ENTER]

④Set the protect tab on the destination disk to WRITE, and insert the disk into the disk drive, then save the song files in the internal memory :
[ENTER]

⑤Repeat steps 3 and 4 until the display responds as shown below :

```
XFER Complete!
Press STOP
```

⑥Leave the Transfer mode :
[STOP]

● The unit is returned to the Stand – by condition of MODE 4.

Addition

★Be sure to use a disk initialized for SUPER – MRC.

Note

★The Song File Transfer will erase all the song data in the internal memory.

4 CONVERT (Song File Convert)

Song files programmed on MRC－500 can be converted into song files for SUPER－MRC.

Procedure

●From the Stand－by condition of MODE 4,

①Select "CONVERT" :
[4] → [ENTER]

This procedure will erase any song data in the internal memory. However, before erasing data, the display asks you if it is OK to do so.

```
Clear SONG data. OK?
Yes:ENTER     NO:STOP
```

②Erase the song data in the internal memory :
[ENTER]

③Set the protect tab on the MRC－500 disk to WRITE, and insert the disk into the disk drive, then assign Disk Convert.
[ENTER]

```
Remake into S-MRC?
Yes:ENTER     NO:STOP
```

④Execute :
[ENTER]

⑤Leave the Convert mode :
[STOP]

●The unit is returned to the Stand－by condition of MODE 4.

Notes

★The Convert procedure will erase allthe song data in the internal memory.

★Song data converted for SUPER－MRC cannot be restored to MRC－500. So, be sure to make a backup of the MRC－500 disk on MRC－500 system.

5 DISK NAME

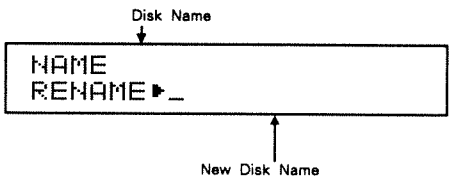
This function allws you to name on the disk using up to 13 letters.

Procedure

● From the Stand – by condition of MODE 4,

①Select "DISK NAME" :
[5] → [ENTER]

The current disk name is displayed.



②Change the disk name :
[Alpha Dial] or [Ten Key Pad] (Select characters)
[←] [→] or [ENTER] (Shift the cursor)

③Save the disk name :
[SAVE]

Additions

★A backup disk will have the same disk name as the source disk. To avoid confusion, you may change the disk name later. (For instance, you could name the disk with 11 letters, then add ".B" for the name of the backup disk.)

★The disk name is optional, there is no problem if you do not name a disk.

★The Disk Naming procedure does not erase the song data in the internal memory.

Note

★At disk name is not put on an initialized disk.

6 RESTART

Funciton　This re－boots the unit with the system program once again.

Procedure　●From the Stand－by condition of MODE 4,

①Select "RESTART" :
[6] → [ENTER]

This procedure will erase any song data in the internal memory. However, before erasing the data, the display asks you if it is OK to do so.

```
Clear SONG data. OK?
Yes:ENTER    NO:STOP
```

②Erase the song data :
[ENTER]

③Execute :
[ENTER]

Now, the system program is loaded again.

MODE 5

MODE 5 SYSTEM CONFIG (System Configuration) ·····184
1 CHANGE CONFIG (Change Configuration) ·····185
CNFG 1 LOCATE MODE·····186
CNFG 2 STEP/GATE·····187
CNFG 3 GATE RATIO (Gate Time Ratio) ·····189
CNFG 4 MIDI UPDATA·····190
CNFG 5 REWRITE MODE·····191
CNFG 6 MIDI CONTROL ·····192
CNFG 7 SETUP UPDATE·····193
2 LOAD CONFIG (Load Configuration) ·····194
3 SAVE CONFIG (Save Configuration) ·····195
4 INIT CONFIG (Initialize Configuration)·····196

MODE 5 SYSTEM CONFIG

This function allows you to collect eight configuration parameters, and a song name for Auto Load, into one configuration file, and save it. In this way, the system boot is greatly simplified.

Procedure

Using "Save Configuration", save the configuration values and the name of the song file to be auto – loaded (as one configuration file) on a disk.

● From the Stand – by condition of MODE 5,

①Set the configuration values with "CHANGE [CONFIG]".

②If you wish to load a song file at boot up (= Auto Load), you must load the song file into the internal memory now.

● The unit is returned to the Stand – by condition of MODE 5.

1. CHANGE CONFIG (Change Configuration)

This function shows and changes the current configuration in the memory.

Procedure

●From the Stand – by condition of MODE 5,

```
MODE 5 SYSTEM CONFIG
1 CHANGE     [CONFIG]
```

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

```
CNFG 1 LOCATE MODE
 STOP = JUST   00
```

②Assign the parameter to be set :
([Alpha Dial] or [Ten Key Pad]) → [ENTER]

③Set the value of each parameter.

④Leave the Change Configuration mode :
[STOP]

●The unit is returned to the Stand – by mode of MODE 5.

Addition

★In the Change Configuration mode, you can select whether to edit the following nine parameters before saving.

■The parameters which can be edited in this mode :
Locate Mode
Step/Gate
Gate Time Ratio
MIDI Updata
Rewrite Mode
MIDI Control

■The parameters which cannot be edited in this mode :
Auto Load File
MIDI 1/2/3
Microscope View Field

CNFG 1 LOCATE MODE

This allows you to set how the unit reacts when the Stop button is pressed during recording or playback, or the destination of the Locate Jump.

Procedure

●From the Stand－by condition of MODE 5,

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

②Select LOCATE MODE :
[1] → [ENTER]

```
CNFG 1 LOCATE MODE
 STOP = JUST   00
```

②Assign the Stop and Locate Jump Modes :
[Alpha Dial] or [Ten Key Pad] (Chane values)
[←] [→] or [ENTER] (Shift the cursor)

④Leave this mode :
[STOP]

●The unit is returned to the Stand－by mode of MODE 5.

Addition

★The value of each parameter and the actual results are shown below :

	Ten Key Pad	Value	Description
Stop Mode	0	JUST	Pressing the Stop button during real－time recording or playing will immediately stop the data.
	1	MEAS	Pressing the Stop button during real－time recording or playing will stop the data at the head of the next bar.
Jump Mode	0	JUST	Locate Jump will jump to the exact position of the locate point.
	1	MEAS	Locate Jump will jump to the head of the bar that includes the locate point.

Note

★Only when the Sync Clock is set to the INTERNAL will the "Stop Mode = Measrue" setting be effective.

CNFG 2 STEP/GATE

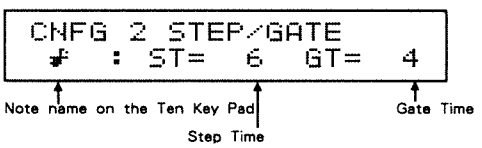
This function sets the step times and gate times of the note marks (ten keys) which are used for the step recording.

Procedure

● From the Stand – by condition of MODE 5,

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

②Select "STEP/GATE" :
[2] → [ENTER]



③Assign a note mark :
[Ten Key Pad] or [Alpha Dial] → [ENTER]

④Specify the step time :
[Ten Key Pad] or [Alpha Dial] → [ENTER]

⑤Specify the gate time :
[Ten Key Pad] or [Alpha Dial] → [ENTER]

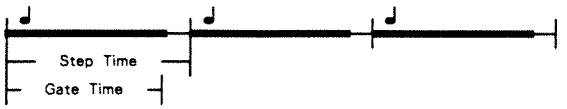
⑥Leave this mode :
[STOP]

● The unit is returned to the Stand – by mode of MODE 5.

Addition

★The default values of the system are shown below :

Note	Ten Key Pad	Step Time	Gate Time
𝅘𝅥𝅯	1 𝅘𝅥𝅯	6	4
𝅘𝅥𝅰	2 𝅘𝅥𝅰	12	9
𝅘𝅥𝅰₃	3 𝅘𝅥𝅰₃	16	12
𝅘𝅥𝅯	4 𝅘𝅥𝅯	24	19
𝅘𝅥𝅯₃	5 𝅘𝅥𝅯₃	32	26
♪	6 ♪	48	41
♩₃	7 ♩₃	60	56
♩	8 ♩	96	86
𝅗𝅥	9 𝅗𝅥	192	178



★The maximum value for the gate time and step time is 999. It is possible to set the gate time longer than the step time.

Reference ☆1. P.36 STEP RECORD

CNFG 3 GATE RATIO (Gate Time Ratio)

This sets the ratio of the gate time when a step time that bars not been set on the note marks (ten keys) is used for the step recording.

Procedure

● From the Stand – by condition of MODE 5,

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

②Select "Gate Ratio" :
[3] → [ENTER]

```
CNFG 3 GATE RATIO
        75%
```

③Specify the gate time ratio :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Leave this mode :
[STOP]

● The unit is returned to the Stand – by mode of MODE 5.

Addition

★ The default value of the Gate Time Ratio is 75%.

★ The variable range of the gate time ratio is 1 to 200%.

Reference

☆1. P.36 STEP RECORD

CNFG 4 MIDI UPDATE

This function allows you to receive song position pointer and transmit "history" messages (all messages except for NOTE) up to that song position.

Procedure

● From the Stand – by condition of MODE 5,

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

②Select "MIDI UPDATE" :
[4] → [ENTER]

```
CNFG 4 MIDI UPDATE
UPDATE TRIG = OFF
```

③Select whether to transmit MIDI "history" messages or not.
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④Leave this mode :
[STOP]

● The unit is returned to the Stand – by mode of MODE 5.

Additions

★The value you have set causes the results shown below :

Ten Key Pad	Value	Descrption
0	OFF	Even when the song position pointer is received, "history" messages cannot be transmitted.
1	SPP	When the song position pointer is received, "history" messages are transmitted.

★To transmit "history" messages manually, refer to Reference ☆1.

★When you use this function, to set the sync clock = MIDI. Refer to Reference ☆2.

Reference

☆1. P.19 STANDBY
☆2. P.73 FUNC 1 SYNC CLOCK

CNFG 5 REWRITE MODE

When rewriting the steps with Real Time Modify, this function selects whether to change the gate time and/or velocity.

Procedure

● From the Stand – by condition of MODE 5,

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

②Select "REWRITE" mode :
[5] → [ENTER]

```
CNFG 5 REWRITE MODE
GATE TIME = ON   11
```

③Select whether to change the gate time and/or velocity in step rewriting :
[Ten Key Pad] or [Alpha Dial] (Change values)
[←] [→] or [ENTER] (Shift the cursor)

④ [ENTER]

⑤Leave this mode :
[STOP]

● The unit is returned to the Stand – by mode of MODE 5.

Addition

★The values you have set cause the actual results shown below :

Parameter	Ten Key Pad	Value	Description
Gate Time	0	OFF	The gate time cannot be changed
	1	ON	The gate time can be changed
Velocity	0	OFF	The velocity cannot be changed
	1	ON	The velocity can be changed

Reference

☆10 P.158 REWRITE MODIFY

CNFG 6 MIDI CONTROL

When performing tempo recording, or velocity rewriting, this function can select which MIDI messages should be received to control the MC.

Procedure

● From the Stand – by condition of MODE 5,

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

②Select "MIDI CONTROL" :
[6] → [ENTER]

```
CNFG 6 MIDI CONTROL
       NOTE#
```

③Specify the MIDI messages that should control the unit :
([Ten Key Pad] or [Alpha Dial]) → [ENTER]

④When you have selected Control Change messages, assign the control change number here.

⑤Leave this mode :
[STOP]

● The unit is returned to the Stand – by mode of MODE 5.

Additions

★The following four MIDI messages are available for controlling the unit :

1 NOTE # (Key Number : 36 – 84 (C2 – C6))
(Playing higher notes will enter quicker (stronger) values.)
2 VELO (Velocity) Playing the key stronger will enter quicker (stronger) values
3 CC (Control Number : 0 – 127) Higher CC values will set quicker (stronger) values
4 PB (Pitch Bend) Increasing the Pitch bend will set quicker (stronger) values

★To study how these MIDI messages actually work on the unit, refer to Reference ☆1 and 2.

Reference

☆1. P.28 Tempo Recording
☆2. P.157 Velocity Rewirte

CNFG 7 SETUP UPDATE

When saving a configuration file, this function selects whether to update the default settings of Auto – Load, Load File, MIDI 1/2/3 and Microscope View Field to the currrent conditions.

Procedure

● From the Stand – by condition of MODE 5,

①Select "CHANGE [CONFIG]" :
[1] → [ENTER]

②Select "SETUP UPDATE" :
[7] → [ENTER]

```
CNFG 7 SETUP UPDATE
A-LOAD = OFF    000
```

③Select whether to update the three parameters :
[Ten Key Pad] or [Alpha Dial] (Change values)
[←] [→] or [ENTER] (Shift the cursor)

④Leave this mode :
[STOP]

● The unit is returned to the Stand – by mode of MODE 5.

Additions

★The values you have set cause the actual results shown below :

Parameter	Ten Key Pad	Value	Description
A – LOAD	0	OFF	Auto Load File name is not renewed.
	1	ON	All the song titles in the internal memory are registered in a configuration file as an auto load file name.
	2	ORG	Erase all file name.
MIDI	0	OFF	MIDI settings are not renewed.
	1	ON	The MIDI 1/2/3 settings are resistered in a configuration file.
μ – VIEW	0	OFF	The View Field is not renewed.
	1	ON	Locate Jump will jump to the locate point position.

2 LOAD CONFIG (Load Configuration file)

This function loads a configuration file from a disk, changing the values of the configuration parameters currently used.

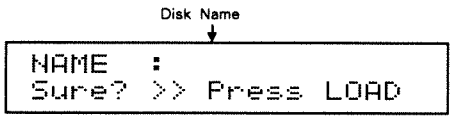
Procedure

●From the Stand – by condition of MODE 5,

①Insert the disk that contains the configuration file you need.

②Select "LOAD [CONFIG]" :
[2] → [ENTER]

The disk name is shown in the display.



③Load the configuration file :
[LOAD]

●The unit is returned to the Stand – by condition of MODE 5.

Note

★The Auto – Load of a song file is executed only at system boot, and thereforeno song file is loaded in the above procedure.

3 SAVE CONFIG (Save Configuration File)

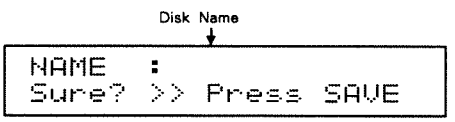
This function saves the current values of the configuration parameters onto a disk as a configuration file.

Procedure

●From the Stand – by condition of MODE 5,

①Insert the disk which configuration file you wish to renew, into the disk drive : [ENTER]

②Select "SAVE [CONFIG]" : [3] → [ENTER]



The disk name is shown in the display.

③Save the configuration file : [SAVE]

●The unit is returned to the Stand – by condition of MODE 5.

Addition

★The CNFG 1 to 6 settings can be stored in a configuration file, renewing the existing CNFG 7 data.

Reference

☆1. P.197 CNFG 7

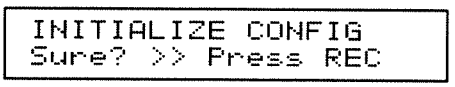
4 INIT CONFIG (Initialize Configuration Data)

This function returns the values of the configuration parameters currently used to the default values (values set in the system program).

Procedure

● From the Stand – by condition of MODE 5,

①Select "INIT [CONFIG]" :
[4] → [ENTER]



③Initialize the configuration values :
[REC]

● The unit is returned to the Stand – by condition of MODE 5.

Addition

★This function returns the value only in the memory.

Attention (Warning Indication)

■ MODE 1

```
Attn! NO DISK
Insert DISK & ENTER
```

【Cause】 You are using an MC－500 or MC－300, but the SUPER－MRC system disk is not inserted correctly.

【What to do】 Insert the SUPER－MRC disk correctly, and push [ENTER]

```
Attn! WRONG DISK
Change DISK & ENTER
```

【Cause】 You are using an MC－500 or MC－300, but a disk other than a SUPER－MRC system disk is inserted.

【What to do】 Insert a SUPER－MRC system disk, and push [ENTER]

```
Attn! CANNOT READ
Change DISK & ENTER
```

【Cause】 You are using an MC－500 or MC－300 with SUPER－MRC, but the system program cannot be read properly.

【What to do】 Insert another SUPER－MRC system disk, and push [ENTER]
If the same message is shown again, do not use the disk.

```
Attn! LACK of LENGTH
Press STOP
```

【Cause】 Executing the current function would exceed the maximum length of the song data.

【What to do】 Push [STOP] and change the settings so that it will not exceed the maximum length of the song data.

■ LOAD/SAVE CURRENT SONG

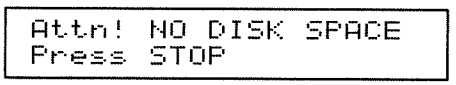
```
Attn! WRONG DISK
Press STOP
```

【Cause】 The connected disk has been initialized with a system other than SUPER－MRC, and therefore cannot save or load data.

【What to do】 Press [STOP]
Change to a disk initialized with SUPER－MRC.

【Cause】 The song file you are trying to load is too large for the internal memory.

【What to do】 Push [STOP]
If there is any data mot required in the internal memory, delete it.



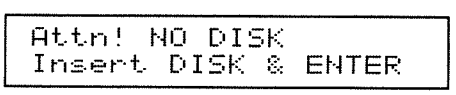
【Cause】 The song data you are trying to save is too large for the remaining space of the disk you use.

【What to do】 Press [STOP]
Change to another disk. If you do not have another disk, make a data disk with MODE 4, then save.

【Cause】 The protect tab on the disk is set to the "Protect" position, therefore, saving is impossible.

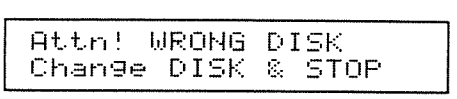
【What to do】 Press [STOP]
Change the position of the protect tab to the "Write" position, then repeat the whole procedure.

■ MODE 2



【Cause】 No disk is inserted, therefore data cannot be loaded or saved.

【What to do】 Insert a disk which has been initialized with SUPER – MRC and press [ENTER]

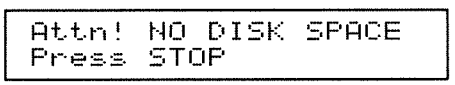


【Cause】 The connected disk has been initialized with a system other than SUPER – MRC, and therefore cannot save or load data.

【What to do】 Press [STOP]
Change to a disk initialized with SUPER – MRC.

【Cause】 The song file you are trying to load is too large for the internal memory.

【What to do】 Push [STOP]
If you are trying to load more than one song file, reduce the number of files until it is smaller than the remaining space of the internal memory. If there is any unneeded data in the internal memory, delete it.

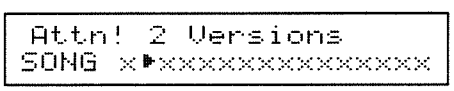


【Cause】 The song data you are trying to save is too large for the remaining space of the disk you are using.

【What to do】 Change to another disk, then push [ENTER]
If you do not have another disk, make a data disk with MODE 4, then save.

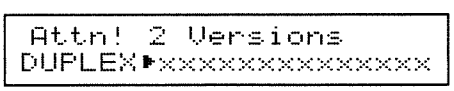
【Cause】 The protect tab on the disk is set to the "Protect" position, therefore, saving, deleting or renaming are impossible.

【What to do】 Press [STOP]
Change the position of the protect tab to the "Write" position, then repeat the whole procedure.



【Cause】 You are trying to save more than one song that has the same song title.

【What to do】 Change the song title, then push [ENTER]



【Cause】 The new name of the song file you are trying to rename already exists on the disk.

【What to do】 Change the song file name, and push [ENTER]

■ MODE 3

```
Attn! Rhytm Mismatch
CANNOT LINK @ SONG x
```

【Cause】 The FUNC 4 and 5 settings of the songs you are trying to link are different.

【What to do】 Match the settings using UTIL 3.

```
Attn! LACK of MEMORY
CANNOT LINK @ LINKxx
```

【Cause】 The song data, after being linked, would exceed the remaining memory.

【What to do】 Reduce the number of songs to be linked.

```
Attn! LACK of R-PTN
CANNOT LINK @ SONG x
```

【Cause】 The number of rhythm patterns would exceed 240 if the songs were linked.

【What to do】 Reduce the number of songs to be linked.

```
Attn! LACK of LENGTH
CANNOT LINK @ LINKxx
```

【Cause】 The linked song data would exceed the maximum length.

【What to do】 Reduce the number of songs to be linked.

■ MODE 4

```
Attn! PROTECTED
Change DISK & STOP
```

【Cause】 The protect tab on the disk is set to the "Protect" position, therefore, writing cannot be executed.

【What to do】 Press [STOP].
Change the position of the protect tab to the "Write" position, then repeat the whole procedure.

```
Attn! NO DISK SPACE
Change DISK & ENTER
```

【Cause】 The disk is full.

【What to do】 Change to another disk, and push [ENTER].

■ MODE 5

```
Attn! NO DISK
Insert DISK & ENTER
```

【Cause】 No disk is inserted, therefore configuration files cannot be loaded or saved.

【What to do】 Insert a SUPER – MRC disk, then push [ENTER].

```
Attn! WRONG DISK
Change DISK & STOP
```

【Cause】 The connected disk is not for SUPER – MRC.

【What to do】 Change to a SUPER – MRC disk, then push [ENTER].

■ MIDI

```
Attn! BUFFER FULL
Press STOP
```

【Cause】 A large amount of MIDI messages have been sent in a short period of time, and therefore cannot be received completely.

【What to do】 Push [STOP].
If you wish to receive the same messages, slow down the rate for MIDI message transmission. Otherwise, reduce the amount for MIDI messages.

```
Attn! MIDI ERROR
Press STOP
```

【Cause】 The unit has received signals other than MIDI messages, and therefore stopped recording.

【What to do】 Push [STOP].

```
Attn! MIDI OFF LINE
Press STOP
```

【Cause】 The Active Sensing from the external MIDI device stops in the middle, and therefore, the unit stops recording.
(This applies to units which can receive Active Sensing.)

【What to do】 Push [STOP].

ERROR (Error Messages)

```
ERROR 1 RAM CHECK
See Owner's manual
```

【Cause】 There is something wrong with the internal memory.

【What to do】 Call your local Roland service center or the retail shop where you bought the product.

```
ERROR 2 ILLEGAL DISK
See Owner's manual
```

【Cause】 The system disk you use is not one for the MC－500 series.

【What to do】 Change to a system disk for the MC－500 series, e.g. SUPER－MRC.

```
ERROR 3 DISK I/O
See Owner's manual
```

【Cause】 The system disk is damaged, or has not been initialized yet, and therefore cannot boot up the unit.

【What to do】 Change to a proper system disk.

```
ERROR 4 MEMORY FULL
Press STOP
```

【Cause】 The internal memory is full, therefore recording cannot be continued.

【What to do】 Push [STOP] and delete unnecessary data.

```
ERROR12 DISK I/O
See Owner's manual
```

【Cause】 The SUPER－MRC disk is damaged, or has not been initialized yet, and therefore cannot save or load song data.

【What to do】 Push [STOP]

If the disk is damaged, throw it away.

If the disk is not initialized, initialize it.

```
ERROR22 DISK I/O
See Owner's manual
```

【Cause】 The SUPER－MRC disk is damaged or have not initialized yet, and therefore cannot read or write data correctly.

【What to do】 Push [STOP].
If the disk is damaged, throw it away.
If the disk is not initialized, initialize it.

```
ERROR32 DISK I/O
See Owner's manual
```

【Cause】 The disk you use is not for SUPER－MRC or has not been initialized yet, and therefore cannot load or save the configuration files.

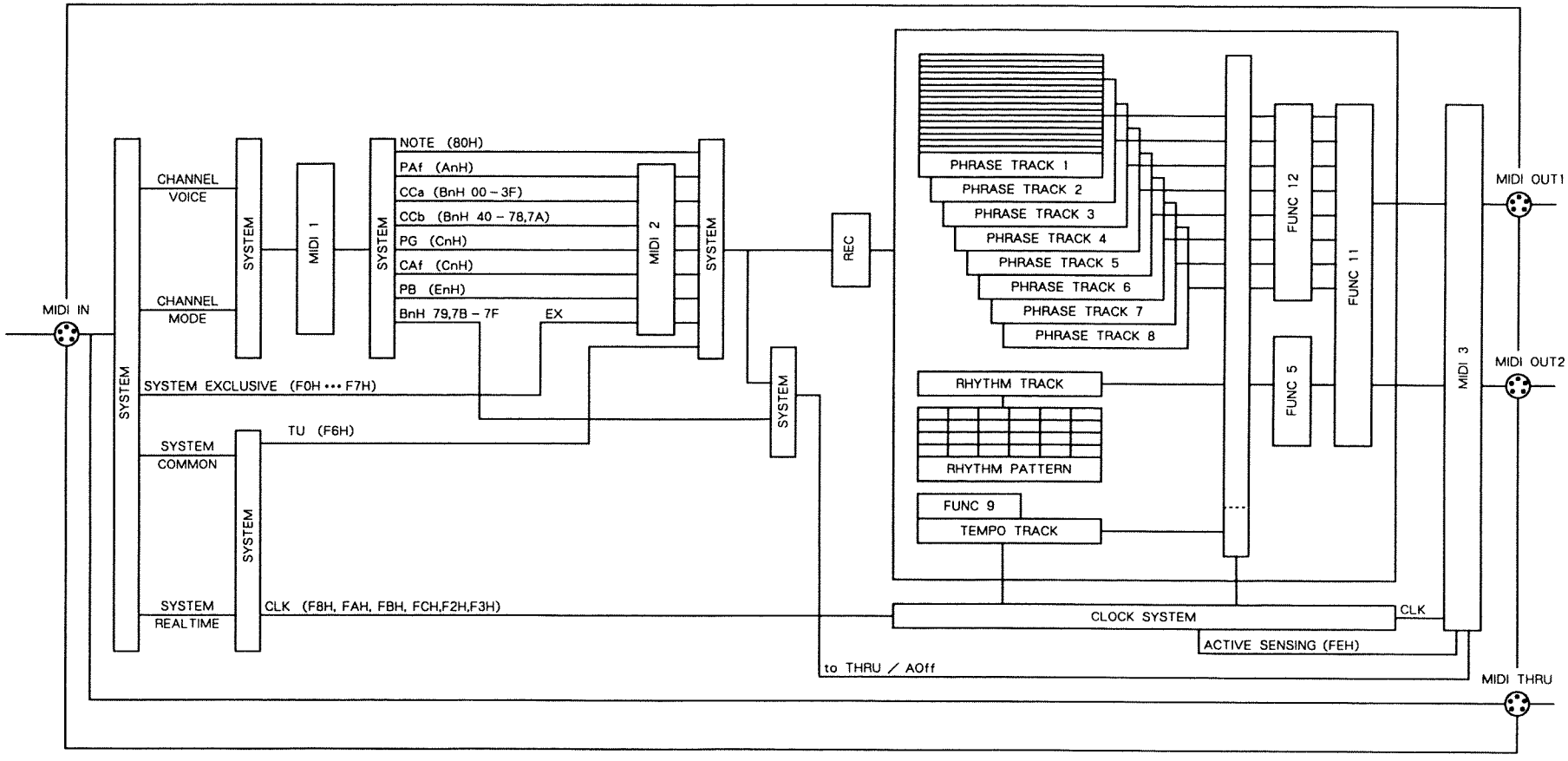
【What to do】 Push [STOP]
If the disk is damaged, throw it away.
If the disk is not initialized, initialize it.

```
ERROR99 DISK I/O xxx
See Owner's manual
```

【Cause】 Unpredictable disk I/O (input/output) error occurs.

【What to do】 Push [STOP]
Record the number shown in the upper right of the display and the location condition of the hardware so that Roland can use it to find out the cause.

MIDI Flow Chart



Date : May. 18 1988

Model SUPER – MRC

MIDI Implementation Chart

Version : 1.00

Function •••		Transmitted	Recognixed	Remarks
Basic Channel	Default	All Ch	All Ch	not BASIC ch
	Changed	×	1 – 16 each	
Mode	Default	Mode 3	×	
	Messages	OMNI OFF、 POLY	×	*2
	Alterd	*********		
Note Number		0 – 127	0 – 127	
	True Voice	*********	0 – 127	
Velocity	Note ON	○	○	
	NOte OFF	× 9n, v = 0	×	
After Touch	Key's	○	*1	
	Ch's	○	*1	
Pich Bender		○	*1	
Control Change	0 – 63	○	*1	
	64 – 120	○	*1	
	121	○	×	
Prog Change		○	*1	
	True #	*********	0 – 127	
System Exclusive		○	*1	
System Common	Song Pos	*1	○ (SYNC = MIDI)	
	Song Sel	*1	○ (SYNC = MIDI)	
	Tune	○	○	
System Real Time	Clock	*1	○ (SYNC = MIDI)	
	Commands	*1	○ (SYNC = MIDI)	
Aux Message	Local ON/OFF	○	*1	
	All Notes OFF	*1 (123)	○ (123 – 127)	
	Active Sense	○	○	
		×	×	
Notes		*1 Can be set to ○ or × manually. *2 When SUPER – MRC is first booted up, OMNI OFF, POLY ON are sent for all channels (1~16).		

Mode 1 : OMNI ON, POLY Mode 2 : OMNI ON, MONO ○ : Yes

Mode 3 : OMNI OFF, POLY Mode 4 : OMNI OFF, MONO × : No

Model SUPER – MRC

MIDI Implementation

Date : May. 18 1988

Version : 1.00

1. RECOGNIZED RECEIVE DATA

1.1Messages memorized in RECORD mode

■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 : 00H~7FH (0~127)

*8n kk vv is memorized as 9n kk 00.

●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)

* Received and memorized when PAf in MIDI 2 RCV STATUS is ON.

●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~78H (0~120)
vv = Value : 00H~7FH (0~127)

*Received and memorized when CCa (control number 0 - 63) and CCb (control number 64 - 120) in MIDI 2 RCV STATUS are ON.

●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)

* Received and memorized when PG in MIDI 2 RCV STATUS is ON.

●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)

* Received and memorized when CAf in MIDI 2 RCV STATUS is ON.

●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)

* Received and memorized when PB in MIDI 2 RCV STATUS is ON.

■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)

* Received and memorized as specified in CCb.

■System Exclusive Message

Status	data
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 /System common)

*Received and memorized when EX in MIDI 2 RCV STATUS is ON.
The number of data bytes varies according to the setting of THRU (Soft THRU).

■Sytem Common Message

●Tune request

Status
F6H

1.2Messages not memorized in RECORD mode

■Channel Voice Message

●Control change

Status	Second	Third
BnH	79H	00H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16

■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 SUPER - MRC receives this message, it produces and memorized Note off message for 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

* Recognizes 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

* Recognizes 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

* Recognizes 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

* Recognizes only as All Notes Off.

1.3Recognized messages for sync.

Recognized when FUNC 1 SYNC CLOCK is set at MIDI.

■ Sytem Common Message

● Song position pointer

Status	Second	Third
F2H	mmH	llH

mm,ll = Value : 00H,00H~7FH,7FH 0~16383

* Received when SUPER - MRC is in standby mode.

● Song select

Status	Second
F3H	ssH

ss = Value : 00H~7FH 0~127

* Received when SUPER - MRC is in standby mode.

■ System Realtime Message

● Timing clock

Status
F8H

● Start

Status
FAH

● Continue

Status
FBH

● Stop

Status
FCH

1.4Messages received for detecting trouble in MIDI connection

■ System Realtime Message

● Active sensing

Status
FEH

*Having received Active Sensing, SUPER - MRC automatically terminates recording if a MIDI message is not followed by a MIDI message within 300 ms.

2. TRANSMITTED DATA

2.1 SUPER - MRC transmits memorized message in playback mode.

2.2 When THRU (Soft THRU) is set in MIDI 3 XMT CONDITION, SUPER - MRC transmits received message (except Sytem Common Messages and System Realtime Messages). The following messages can be selectively set to ON or OFF.

■ 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

* Transmitted when all notes are turned off in a specific channel.

2.3 Messages transmitted when CLK of MIDI 3 XMT CONDITION is ON and FUNC 1 SYNC CLOCK is MIDI.

■ Sytem Common Message

● Song position pointer

Status	Second	Third
F2H	mmH	llH

mm,ll = Value : 00H,00H~7FH,7FH 0~16383

● Song select

Status	Second
F3H	ssH

ss = Value : 00H~7FH 0~127

■ System Realtime Message

● Timing clock

Status
F8H

● Start

Status
FAH

● Continue

Status
FBH

● Stop

Status
FCH

2.4 Created message

2.4.1 Messages are automatically created by system.

■ 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

Transmitted when all notes are turned off in a specific channel.

● OMNI OFF

Status	Second	Third
BnH	7CH	00H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16

* Transmitted on all channels (1 - 16) upon starting of the system program.

● POLY

Status	Second	Third
BnH	7FH	00H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16

* Transmitted on all channels (1 - 16) upon starting of the system program.

■ System Realtime Message

● Active sensing

Status
FEH

2.4.2 Created messages for sync.

■ Sytem Common Message

● Song position pointer

Status	Second	Third
F2H	mmH	llH

mm,ll = Value : 00H,00H~7FH,7FH 0~16383

* Transmitted when CLK in MIDI 3 XMT CONDITION is ON.

● Song select

Status	Second
F3H	ssH

ss = Value : 00H~7FH 0~127

* Transmitted when CLK in MIDI 3 XMT CONDITION is ON.

■ System Realtime Message

● Timing clock

Status
F8H

* Transmitted when CLK in MIDI 3 XMT CONDITION is ON.

● Start

Status
FAH

* Transmitted when CLK in MIDI 3 XMT CONDITION is ON.

● Continue

Status
FBH

* Transmitted when CLK in MIDI 3 XMT CONDITION is ON.

● Stop

Status
FCH

* Transmitted when CLK in MIDI 3 XMT CONDITION is ON.

2.4.3 Messages generated upon execution of UTIL 8.

■ Channel Voice Message

● Note off

Status	Second	Third
9nH	45H	00H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16

* Transmitted over all channels.

● Note on

Status	Second	Third
9nH	45H	40H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16

* Transmitted over all channels.

■ Sytem Common Message

● Tune request

Status
F6H

2.4.4 generated upon execution of [STOP] + [MIDI].

■ Channel Voice Message

● Control change

Status	Second	Third
BnH	kkH	00H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16
kk = Control number : 01H,40H,79H (1,64,121)

* Transmitted over all channels.

● Channel pressure

Status	Second
DnH	00H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16

* Transmitted over all channels.

● Pitch bend change

Status	Second	Third
EnH	00H	40H

n = MIDI channel number : 0H~FH (0~15) 0 = ch.1 15 = ch.16

* Transmitted over all channels.

■ 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

* Transmitted over all channels.

SPECIFICATIONS OF THE SUPER – MRC

■ Song Data

● Maximum length of song data
999 bers or quarter note × 87381

● Tempo control Range
♩ = 10~250 (basic tempo)
♩ = 5~500 (When controlled with the tempo track)

● Tracks
Phrase track (16 MIDI Channel/track) × 8
Tempo track × 1

● Data Input methods
Real time recoding
Step recording

● the maximum number of voices which can be recorded at the same time (at real time recording) 64 voices

● the maximum number of voices which can be played at the same time 64 voices /track

● Phrase Track Data Resolution
96 Clock/quater note

● Available Time Signature
1~32/16, 1~32/8, 1~32/4, 1~32/2

● Rhythm Pattern Data
The number of rhythm instruments ••• Max. 32 (with individual MIDI channels)
The number of patterns which can be used ••• Max. 240 patterns/song
Resolution ••• Min, 32nd note (individually set for each insturment)

● Song Data Capacity

Internal memory

	MC – 500MK II	Data Disk
Song	8 songs	8 songs
Step	Approx. 100,000 steps	Approx. 150,000 steps

Disk Memory

	System Disk	Data Disk
File	103 files	109 files
Step	Approx. 100,000 steps	Approx. 25,000 steps

● Song Data Functions
FUNC 1 – 14

● Song Data Edit
General Edit
(specific section of data) Edit 1 – 15
Event Edit — Micro Edit 1 – 5
Step Edit 1 – 5
Song Edit — Mode 3 Link

■ External connections

● MIDI Condition control
MIDI Input Control ••• MIDI1, 2
MIDI Output Control ••• MIDI 3

● External Sync
MIDI Sync
Tape Sync

INDEX

A

AUTO STOP 85
AUTO PUNCH in recording 32
AVAILable disk 55
AVAILable memory 54

B

BACK UP 177
BLOCK REPEAT (FUNC 7) 83
BLOCK REPEAT play 50

C

CHANGE [CONFIG] 185
CHANGE EVENT 132
CHANGE G.T.(Gate Time EDIT 11) 116
CHANGE M.CH (MIDI CHannel,EDIT 8) 110
CHANGE STEP (S – EDIT 1) 137
CHANGE VELOcity (EDIT 7) 108

D

DATA CHECK (UTIL 6) 148
DATA REDUCE (UTIL 7) 150
DATA THIN (EDIT 13) 120
DELETE (EDIT 2) 100
DELETE [SONG FILE] 165
DELETE STEP 138
DISK NAME 180

E

EDIT 96
ERASE (EDIT 1) 98
ERASE EVENT (μ – EDIT 2 133
EXTRACT (EDIT 5) 104

F

FUNCtion 72
FUNCTION COPY (UTIL 3) 145
FUNCtion .....

G

GATE time RATIO (CNFG 3) .....

I

INITIALIZE [DISK] ····· 175
INITialize [CONFIG] ····· 196
INSERT MEASure (EDIT 3) ····· 102
INSERT STEP (S – EDIT 3) ····· 139

J

JUMP LOCate point ····· 63

L

LINK (MODE 3) ····· 170
LOAD [CONFIG] ····· 194
LOAD [SONG FILE] ····· 161
LOAD CURRENT SONG ····· 56
LOCate ····· 59
LOCATE POINT (FUNC 10) ····· 88
LOCATE MODE (CNFG 1) ····· 186

M

MAnual PUNCH in recording ····· 33
MERGE (EDIT 4) ····· 103
METRONOME (FUNC 2) ····· 74
MICROSCOPE ····· 126
MIDI ····· 66
MIDI CONTROL (CNFG 6) ····· 192
MIDI UPDATE (CNFG 4) ····· 190
MIX recording ····· 30
MODE ····· 8
MULTI EDIT (EDIT 15 ····· 123
MOVE EVENT (μ – EDIT 4) ····· 135
μ (micro) – EDIT ····· 130

N

NOTE NAME (FUNC 13) ····· 93

O

OUTPUT ASSIGN (FUNC 11) ····· 90

P

PLACE EVENT (μ – EDIT 5 136
PLAY 48
PUNCH IN RECORD→AUTO PUNCH in recording 32
PUNCH IN RECORD→MAN. PUNCH in recording 33
PUNCH POINT (FUNC 6) 81

Q

QUANTIZE (EDIT 9) 112

R

RCV CHANNEL (ReCeiVe MIDI CHANNEL MIDI 1) 67
RCV STATUS (ReCeiVe STATUS MIDI 2) 68
REALtime recording 24
REALtime modify 153
RECORD 23
RENAME [SONG FILE] (MODE 2) 166
REPLACE recording 28
RESTART (MODE 4) 181
REWRITE MODE (CNFG 5) 191
REWRITE STEP 158
REWRITE VELOcity 157
RHYTHM INSTrument (FUNC 5) 79
RHYTHM VELOcity (FUNC 4) 78
R – PTN recording (Rhythm – PaTterN recording) 38
R – TRK recording (Rhythm – TRacK recording) 44

S

SAVE [CONFIG] (MODE 5) 195
SAVE [SONG FILE] (MODE 2) 163
SAVE CURRENT SONG 57
SETUP UPDATE (CNFG 7) 193
SET LOCate point 60
SHIFT CLK (EDIT 12) 118
SONG DELETE (UTIL 1) 143
SONG EXCHANGE (UTIL 5) 147
SONG LOG (FUNC 14) 94
SONG TITLE (FUNC 3) 76
STEP/GATE (CNFG 2) 187
STEP recording 36
SYNC CLK (FUNC 1) 73
S – EDIT (Step – EDIT) 130

MEMO

T

TIME CALCulation (UTIL 2) ····· 144
TRANSPOSE (EDIT 6) ····· 106
TRK EXCHANGE (EDIT 14) ····· 122
TUNE (UTIL 8) ····· 151

U

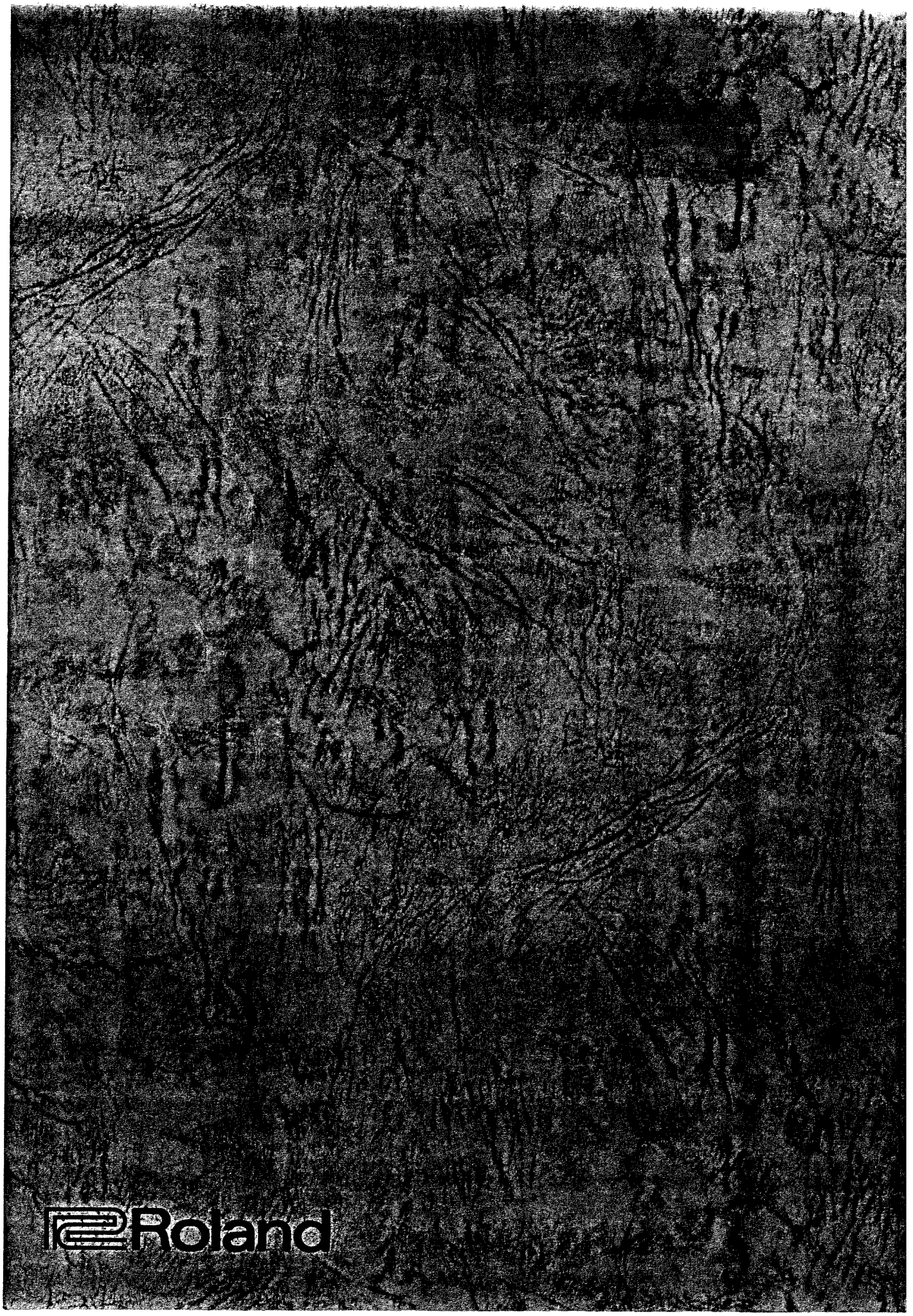
UTILit ····· 142

V

VERIFY (MODE2) ····· 167
VIEW FIELD (MICROSCOPE) ····· 127

X

XFER [SONG FILE] (SONG FILE TRANSFER MODE 4) ····· 178
XMT CHANNEL (TRANSMIT MIDI CHANNEL FUNC 12) ····· 91
XMT CONDITION (TRANSMIT CONDITION MIDI 3) ····· 69


Roland