

F 1 - 3 TRACK STATUS

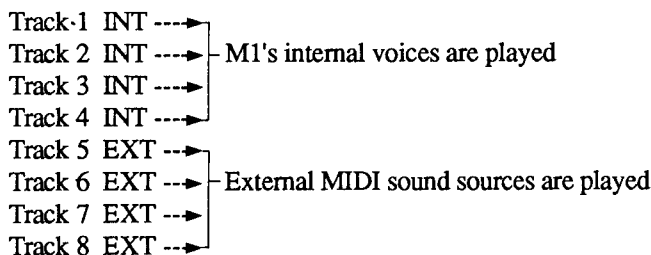
| SONG0 | TRACK STATUS | | | | Track 1 | | |
|-------|--------------|----|----|----|---------|----|----|
| ON | ON | ON | ON | ON | ON | ON | ON |

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
|---|---|---|---|---|---|---|---|

| | | | |
|----------|---------|----------------|--|
| A | Track 1 | OFF/EXT/INT/ON | OFF: play disabled EXT: only MIDI OUT INT: play using only internal sound origin ON: play using both internal sound origin and MIDI OUT |
| B | Track 2 | OFF/EXT/INT/ON | |
| C | Track 3 | OFF/EXT/INT/ON | |
| D | Track 4 | OFF/EXT/INT/ON | |
| E | Track 5 | OFF/EXT/INT/ON | |
| F | Track 6 | OFF/EXT/INT/ON | |
| G | Track 7 | OFF/EXT/INT/ON | |
| H | Track 8 | OFF/EXT/INT/ON | |

There are four selections: play disabled (OFF), play only MIDI OUT (EXT), play using only internal sound origin (INT) and play using both (ON) for the play data of each track.

- * This setting is memorized as part of each song as a song parameter.
- * If another MIDI device is being used -- for example, another 16-voice multi-timbral synthesizer -- additional voices in each track can be allotted to the device, allowing a total of 32 voices that can be played simultaneously.



- * When the currently played track is set to EXT, internal voices do not sound when playing the keyboard. Moreover, when the current track is set to INT or OFF, note data (from playing the keyboard) is not output through MIDI OUT.

F 1 - 4 MIDI CH (MIDI channel)

| SONG0 | MIDI CH | | | | Track 1 | | |
|-------|---------|---|---|---|---------|---|---|
| 1G | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
|---|---|---|---|---|---|---|---|

| | | | |
|----------|---------|------|------------------------------------|
| A | Track 1 | 1~16 | Setting MIDI channel of each track |
| B | Track 2 | 1~16 | |
| C | Track 3 | 1~16 | |
| D | Track 4 | 1~16 | |
| E | Track 5 | 1~16 | |
| F | Track 6 | 1~16 | |
| G | Track 7 | 1~16 | |
| H | Track 8 | 1~16 | |

Sets the MIDI channel for playback of each track. (Sequence data and the set MIDI channel corresponding to the sound origin change at the same time.)

- * This setting is memorized as part of each song as a song parameter.
- * Usually different channels are assigned to each of the eight tracks. However, layering of sounds is possible by assigning two tracks to the same channel.

Example

| | | | |
|---------|-------|------------|----------------------|
| Track 1 | ch. 1 | Program 00 | Play data of track 1 |
| Track 2 | ch. 1 | Program 01 | (no data is entered) |

Plays Program 00 and Program 01 together in layered fashion from the play data of track 1.

- * It is possible to input play data separately by setting more than two tracks to the same channel. (The Program of the other track should be set to "OFF.")

Example

| | | | |
|------|-------|---------|--------------|
| TR 1 | ch. 1 | PROG 00 | Note data |
| TR 2 | ch. 1 | OFF | Control data |

Program 00 can be played with the combined note and control data.

F 2 - 1 STEP RECORDING

| | | | | | | | |
|-----------------------|---|---|---|-------------|---|---|---|
| SONG00 STEP RECORDING | | | | | | | |
| Track=1 | | | | Measure=001 | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|---------|---------|-----------------------------|
| [A] | Track | 1 ~ 8 | Track number to be recorded |
| [H] | Measure | 1 ~ 250 | Measure number |

| | | | | | | | |
|--------------------------------|---|---|---|----------------------|---|---|---|
| SONG00 Tr1 M001 1:00 Step Time | | | | | | | |
| Step=1/4 | | | | mf Ten [RST][TIE][◀] | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|-----------------|---------------------|---|
| [B] | Step Time | 1/32~1/1 | The basic length of a note (a thirty-second to a whole note) |
| [C] | Triplet/Dot | ---- TRIP DOT | Changing the length of a note Note specified by step Triplet of the specified note by step Dotted note of the specified note by step |
| [D] | Key Dynamics | <i>ppp - fff</i> | Strength (volume) of sound (very weak to very strong) |
| [E] | Staccato/Tenuto | Stac ---- Ten | Style of play Staccato (cut short) Regular playing style Tenuto (holding to full note-value) |
| [F] | | [RST] | Setting rest marks |
| [G] | | [TIE] | Setting ties (only if a note has been input) |
| [H] | | [◀] | Goes back one step (step back) |

In step recording, the length and the strength of each note is input by specifying the value and the pitch is input by specifying the key.

* The data included in the measure which was recorded is erased.

1. Sets the track (**[A]**) to be recorded and the measure number (**[H]**) at which recording will start.

2. Press the START/STOP key after pressing the REC key; it will light up.

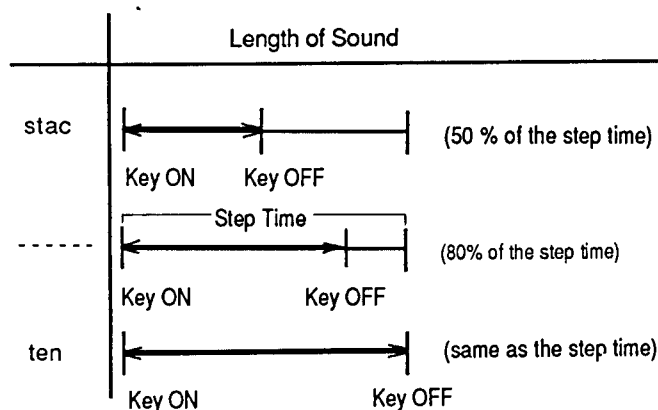
* Shown at the top of the display are: the measure number of the step to be recorded, the time signature, and the clock position in the beat. (The value of 1 clock is 1/48 of a quarter note.)

M001 1:24
 Measure Beat Clock

3. Sets the type (length) of the note to be input by step time (**[B]**) and triplet/dot (**[C]**). (The value of a triplet is 2/3 of the step time, and the value of a dot is 3/2 of the step time.)

| [B] | 32 | 16 | 8 | 4 | 2 | 1 |
|------------|----|----|---|---|---|---|
| [C] | | | | | | |
| --- | | | | | | |
| TRIP | | | | | | |
| DOT | | | | | | |

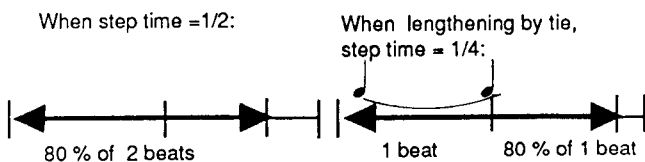
4. Sets the length each note sounds (staccato/tenuto) (**[E]**).



5. Sets the sound strength (volume) by key velocity (**[F]**).

| | Strength | Velocity value |
|------------|-------------------------------|----------------|
| <i>ppp</i> | Pianississimo (very weak) | 24 |
| <i>pp</i> | Pianissimo | 44 |
| <i>p</i> | Piano | 54 |
| <i>mp</i> | Mezzo piano (slightly weak) | 64 |
| <i>mf</i> | Mezzo forte (slightly strong) | 74 |
| <i>f</i> | Forte | 84 |
| <i>ff</i> | Fortissimo | 94 |
| <i>fff</i> | Fortississimo (very strong) | 114 |

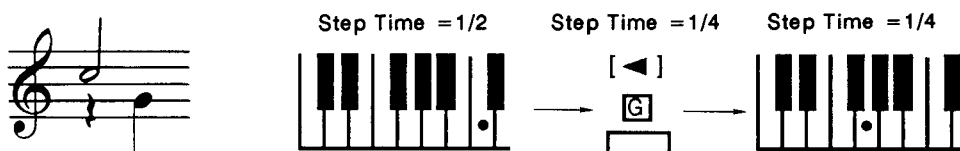
- * In step recording the strength at which the keyboard is played is ignored.
- 6. Use the keyboard to input the notes while step recording. (Likewise, play a chord when inputting chords.) All the keys that are played until their release are recorded together in the same step regardless of the actual timing of playing the keys.
- 7. Recording proceeds to the next step when all the keys are released. Repeat operations 3 through 6 as many times as you want.
- * When entering rests, recording proceeds to the next step by pressing rest (**[F]**).
- 8. After finishing all step inputs, press the START/STOP key to complete the recording.
- * Step is forwarded as many times as set by the step time when pressing Rest (**[F]**).
- * The note input in the previous step lengthens by the amount of the step time when pressing tie (**[G]**).
- * There are two ways of inputting longer notes than the note value set by step time. One method is to reset the note by step time and the other is to lengthen by using tie. The length of the note as determined by each method is shown below:



- * Tie can also be set while playing the keys, and the note becomes longer according to the amount of step time. In this case, the tie affects only the played key's sound, making it possible to change chords around the held key.



- * The step can be moved back as far as set by the step time when pressing step back (**[H]**). Any notes or steps starting from and occupying the space moved back to are deleted.



- * This is used not only for deleting mistakenly entered notes, but also used for inputting succeeding notes; in such applications step back is used to shorten the step time.

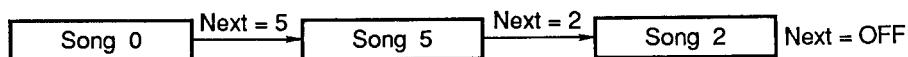
- * In step recording, control data cannot be input. Record the control data on another track in real time and bounce or insert the control data by using event edit.

F 3 - 1 SONG PARAMETER

| | | | | | | | | | |
|-------|---|----------|---|--------|---|----------|---|-------|--|
| SONG0 | | New Song | | [◀][▶] | | Next=OFF | | ♩=120 | |
| A | B | C | D | E | F | G | H | | |

| | | | |
|-----|-----------|---------------------|--|
| [C] | | [◀] | Moving cursor to the left |
| [D] | | [▶] | Moving cursor to the right |
| [F] | Next Song | OFF, 0-9 C0 ~ C9 | Following song to be played |
| [H] | ♩= Tempo | 40 ~ 208 | Initial tempo of the song (beats per minute) |

- * Input the song name (up to ten characters) by using [◀] ([C]) and [▶] ([D]). (Identical to PROGRAM Mode F 9 - 1, RENAME.)
- * In Tempo set the initial tempo of the song.
- * Tempo can be changed by the tempo change function as part of the play data.
- * When recording in real time, set the tempo in this function before recording.
- * Setting tempo has no effect when clock (in GLOBAL Mode F5-1) is set to MIDI.
- * Next Song sets the song that will follow the present song's completion.
- * When playing song 0, 5 and 2 continuously:



- * If the first song is set as the next song, it will continue to play repeatedly.
- * When the memory card which has sequence data in it is inserted in the PROG/SEQ DATA slot, songs in the card can be selected. (It is necessary to create sequence data inside the M1.)
- * When Next Song is set, a short break may occur between the playing of successive songs.

F 3 - 2 SONG INITIALIZE

| | | | | | | | |
|-------|---|-----------------|---|--------|---|--------|---|
| SONG0 | | SONG INITIALIZE | | Beat=4 | | [EXEC] | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|------|-----------|------------------------------------|
| [A] | Song | 0 ~ 9 | Selection of song |
| [D] | Beat | 2/4 ~ 6/4 | Setting time signature (2/4 ~ 6/4) |
| [G] | | [EXEC] | Executing the initialization |

This function erases all song data (including data on all of the tracks) and sets the time signature (number of beats per measure) at the same time.

1. Select the song to be initialized (**[B]**).
 2. Set the number of beats per measure of four (**[D]**) of the song in the range of 2/4 and 6/4.
 3. Execute INITIALIZE by [EXEC] (**[G]**).
- * The display prompts for confirmation if the song to be initialized has data in it.
 - * The time signature set here cannot be changed unless it is initialized again.
 - * The protect function (F 4-1) for each track is ignored here.

F 4 - 1 TRACK PARAMETER

| | | |
|----------|---------------------|----------|
| SONG00 | TRACK PARAMETER | Track |
| Tr1 | I00 V99 T+00 D+00 A | Prot:OFF |
| A | B | C |
| D | E | F |
| G | H | |

| | | | |
|-----------------|---------------|----------------------------|---|
| [A] Tr | Track | 1 ~ 8 | Selecting the track to be edited |
| [B] | Program | OFF,I00 ~ I99 C00 ~ C99 | Program (sound color) of current track |
| [C] G | Volume | 0 ~ 99 | Volume of current track |
| [D] T | Transpose | -12 ~ +12 | Transposition (in semitones) current track |
| [E] D | Detune | -50 ~ +50 | Minute adjustment of pitch of current track |
| [F] | Panpot | A/9:1~1:9/B/C/C+D/D | Output destination of current track |
| [G] Prot | Track Protect | OFF/ON | Prevents recording on current track |

This function edits the parameter of each track.

- * Select the track whose parameter is to be edited by using Track. The parameter of each track is indicated by the number of the track.
- * Program sets the Program (sound color) of the track. The Program set here is played until any program changes appear in the play data.
- * If real time recording is executed, the Program used at that time is set here.
- * When the memory card having Program data stored in it is used, Programs in the card can be selected. (Make sure the correct card is inserted when playing Programs from the card.)
- * Volume controls the volume of the track.
- * When recording in real time, the volume used in recording is set to the same level here.
- * Transpose and Detune adjust the pitch of the track. (Transpose adjusts in semitone steps, and Detune in cent steps.)
- * Panpot (pan) sets the output destination of the track. Settings are: A, A:B (1:9 - 9:1), B, C, C + D, and D.
- * Recording and editing are prevented when Protect is ON.
- * It is recommended to set Protect to ON for tracks which have been recorded to avoid erasing or rewriting data by mistake.

F 4 - 2 TRACK COPY/BOUNCE

| | | |
|----------|-------------|--------------|
| SONG00 | COPY/BOUNCE | Source Track |
| (COPY) | Tr2 --> Tr1 | [EXEC] |
| A | B | C |
| D | E | F |
| G | H | |

| | | | |
|--------|--------------|-------------|------------------------------------|
| [A] | Copy/Bounce | COPY/BOUNCE | Switching between copy and bounce |
| [C] Tr | Source Track | 1 ~ 8 | Track number to be bounced |
| [E] Tr | Dest Track | 1 ~ 8 | Track number of bounce destination |
| [G] | | [EXEC] | Executing the bounce |

This function lets you copy or bounce the play data from track to track.

Track Copy

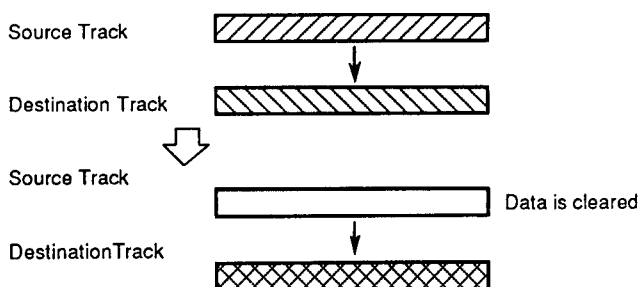
This copies the play data from one track to another.

1. Select the COPY function ([A]) and set the source track (the track that will be copied) ([C]), and the destination track (the track to which the copy will be made) ([E]).
2. COPY is executed by pressing [EXEC] ([G]).

Track Bounce

This combines the play data of two tracks into one.

1. Select the BOUNCE function ([A]) and set the source track (the track that will be bounced) ([C]), and the destination track (the track to which the selected track will be bounced) ([E]).
2. BOUNCE is executed by pressing [EXEC] ([G]).



- * The data on the source track is cleared after the bounce operation.
- * Setting of destination track is effective for track parameters like track Program (sound color) and MIDI channel. (Note that after bouncing tracks which have different Programs or MIDI channels, the track bounced to is assigned only one Program or MIDI channel and the original assignments cannot be recovered.)
- * Bouncing may cause an unnatural effect when control change data is included in both of the tracks. (Control change data can be deleted by Measure Erase, F 5 - 3.)
- * When patterns are included in the source track, that track cannot be bounced unless the corresponding measures of the destination track are empty. (An error message results.)

F 4 - 3 TRACK ERASE

| | | | | | | | |
|--------|---|-------------|---|--------|---|---|---|
| SONG00 | | TRACK ERASE | | | | | |
| | | Track = 1 | | [EXEC] | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|-------|--------|--|
| [D] | Track | 1 ~ 8 | Track number whose play data is to be erased |
| [G] | | [EXEC] | Executing the erase |

This function erases one track in the current song.

1. Select the track to be erased ([D]).

2. Execute ERASE by [EXEC] ([G]).

* A prompt for confirmation appears when the track to be erased has data.

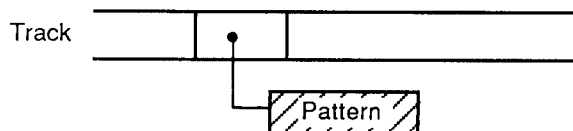
F 5 - 1 PUT/COPY PATTERN

| | | | | | | | |
|---------|---|------------------|---|--------|---|---|---|
| SONG00 | | PUT/COPY PAT | | | | | |
| (PUT) | | P00 --> Tr1 M001 | | [EXEC] | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|--------|----------|-------------|---|
| [A] | PUT/COPY | PUT COPY | Selection of pattern function (put or copy) Assigning pattern Copying pattern |
| [C] P | Pattern | 0 ~ 99 | Pattern number |
| [E] Tr | Track | 1 ~ 8 | Track number |
| [F] M | Measure | 1 ~ 250 | Measure number |
| [G] | | [EXEC] | Executing PUT or COPY |

Patterns can be connected or strung together in the measure of the specified track. There are two ways of connecting patterns: PUT and COPY. PUT writes the pattern number to the track, and COPY copies the play data of the pattern to the track.

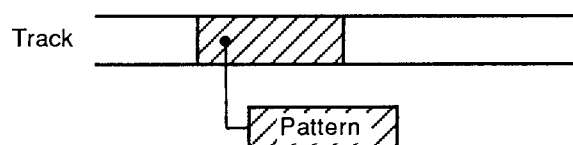
* In the case of PUT:



* Consumes little memory.

* Play changes when pattern is revised.

* In the case of COPY:



* Play data can be revised on the track.

* Play does not change even if the pattern is revised.

1. Specify whether PUT (writing in the pattern number) or COPY (writing in the play data of the pattern) will be used ([A]).

2. Specify the pattern ([C]), track ([E]) and measure ([F]) to be written in.

3. Execute by [EXEC] ([G]).

* The play data included in the measure, which is in the specified measure, will be lost. (A prompt for confirmation will appear when the play data is included.)

- * Measures move to fill the space left by the pattern measure after executing.
- * If the time signature of the song and the pattern differ, PUT/COPY cannot be executed.
- * Patterns which do not have data cannot be used with PUT. (Create a pattern before using PUT.)
- * When using PUT to assign a pattern of longer than two measures, specific measures within the pattern cannot be erased or edited while they are part of the track; they must be edited separately.

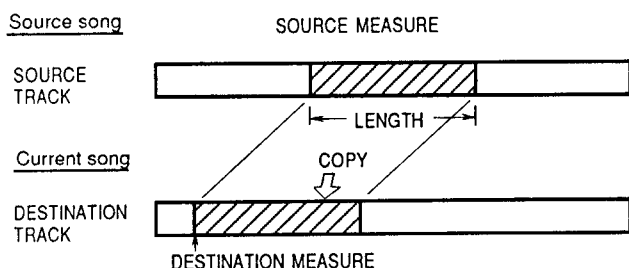
F 5 - 2 MEASURE COPY

| | | | | | | | |
|-------|---|-------------------|---|-------------|---|---|---|
| SONG0 | | MEASURE COPY | | Source Song | | | |
| Song0 | | Tr1 M001 L004→Tr1 | | M005 [EXEC] | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|---------------|----------------|---------|---|
| A SONG | Source Song | 0 ~ 99 | Song number which has the measure to be copied |
| B Tr | Source Track | 1 ~ 8 | Track number which has the measure to be copied |
| C M | Source Measure | 1 ~ 250 | First measure number to be copied |
| D L | Length | 1 ~ 250 | Length of measures to be copied (in measures) |
| E Tr | Dest Track | 1 ~ 8 | Track number to which measure is to be copied |
| F M | Dest Measure | 1 ~ 250 | First measure of destination |
| G | | [EXEC] | Executing the copy |

Copies the specified range of the play data.

1. Specify the song (**A**), track (**B**) and the first measure (**C**) of the copy source, and specify the track (**E**), the first measure of the destination (**F**) and number of measures to be copied (**D**) to the destination.
2. Execute COPY by [EXEC] (**G**).



- * The data included in the destination copy will be lost. (A prompt for confirmation will appear when play data is included.)
- * When there is a tied note which lays between the inside and outside of the specified range, the tie is deleted when copying.
- * Copy cannot be executed when the pattern lies between the inside and outside of the specified range.
- * Copy cannot be executed when the time signatures of the source and destination differ.
- * When copying within the same track, the copy function cannot be executed if the range of the destination measure and the range of source measure overlap.

F 5 - 3 MEASURE INS/DEL/ERASE (Measure Insert/Delete/Erase)

| | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|
| SONG00 INS/DEL/ERASE | | | | | | | |
| (INSERT) Tr-1 M001 L000 [EXEC] | | | | | | | |
| A | B | C | D | E | F | G | H |

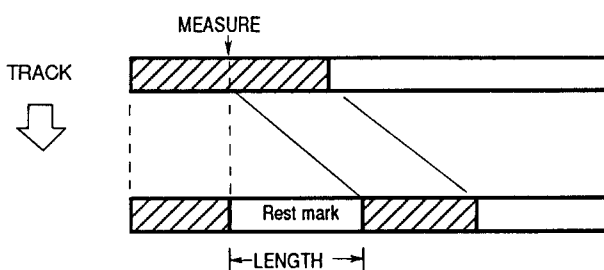
| | | | |
|--------|---------------|---------------------------|--|
| [A] | INS/DEL/ERASE | INSERT DELETE ERASE | Selection of function (insert/delete/erase) Inserting measure Deleting measure Erasing data |
| [C] Tr | Track | 1 ~ 8 ALL | Track number |
| [D] M | Measure | 1 ~ 250 | Measure number |
| [E] L | Length | 1 ~ 250 | Length (in measures) |
| [F] | Erase Data | ALL NOTE CTRL | Types of data to be erased (Erase only) All data (effectively puts a rest at the specified point) Note data (key information) Control data (joy stick, after touch, etc.) |
| [G] | | [EXEC] | Executing insert/delete/erase |

This function inserts and deletes measures and erases play data. First select the desired function, -- insert, delete, or erase -- by using INS/DEL/ERASE ([A]).

MEASURE INSERT

This function inserts an empty measure of a specified length.

1. Set the track ([C]), measure ([D]) and number of measures ([E]).
2. Executes insert by [EXEC] ([G]).

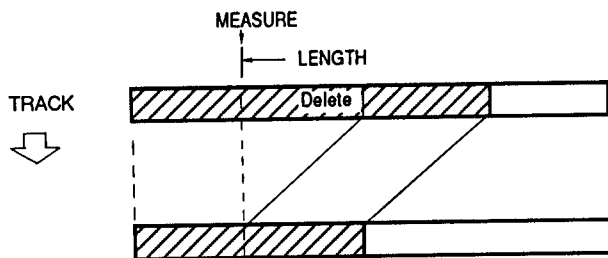


- * The measures following the specified measure move over to accommodate the inserted measures.
- * When setting TRACK to ALL, insert is executed to all the tracks.
- * Insert cannot be executed to a measure in the middle of a pattern.
- * When there is a tied note which lies between the inside and outside of the specified measure, the tie is deleted and the note is divided into two.

MEASURE DELETE

This function deletes play data in the specified range.

1. Specify the track ([C]), the first measure ([D]) and the number of measures ([E]) to be deleted.
 2. Execute delete by [EXEC] ([G]).
- * A prompt for confirmation appears when there is data in the measure to be deleted.

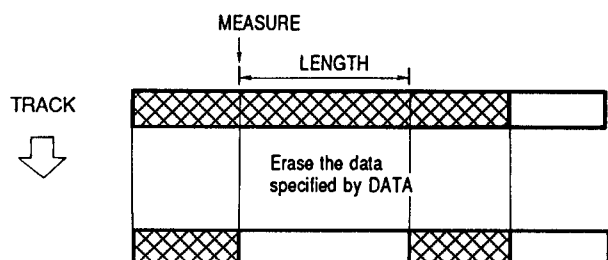


- * The data following the deleted measure is moved to fill the space left by the deleted measure.
- * When setting the TRACK to ALL, Delete is executed for all the tracks.
- * Delete cannot be executed on a measure in the middle of a pattern.
- * When patterns are included in the deleting range, the measures occupied by the patterns are erased.
- * When there is a note lying between the inside and outside of the specified range, the part of the note in the range is deleted.

MEASURE ERASE

This function deletes the specified measures from the play data in the specified range.

1. Specify the track (**[C]**), the first measure (**[D]**) and the number of measures (**[E]**) to be erased.
2. Specify the data to be deleted (**[F]**).
 ALL: all data
 NOTE: note data (from keyboard)
 CTRL: control data (pitch bend, after touch, modulation wheel, etc.)
3. Execute ERASE by [EXEC] (**[G]**).



- * Erase is executed for all the tracks when TRACK is set to ALL.
- * This function cannot erase the measure in the middle of the pattern.
- * When setting DATA to ALL, and when there are patterns included in the range to be erased, the measure that the patterns occupy is erased. (When selecting NOTE or CTRL, patterns are not erased.)
- * When there is a note lying between the inside and outside of the specified measure, the part of the note inside the range is erased.
- * As a result of editing measures with these functions, messages such as damper = off and pitch bend = 0 may be lost, thus continuing those effects indefinitely. When this happens, erase the appropriate data, or revise by event edit.

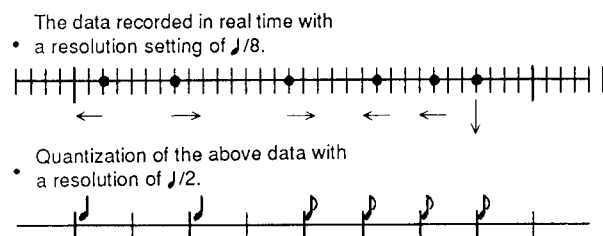
F 5 - 4 QUANTIZE

SONG00 QUANTIZE Quantize Data
Tr1 M001 L001 Res= $\text{♩}/48$ ALL [EXEC]

A B C D E F G H

| | | | |
|---------|---------------|-------------------------------|---|
| [A] Tr | Track | 1 ~ 8 ALL | Track number which has the measure to be quantized All the tracks of current song |
| [B] M | Measure | 1~250 | First measure number to be quantized |
| [C] L | Length | 1~250 | Length of the measures to be quantized (in measures) |
| [D] Res | Resolution | $\text{♩}/48 \sim \text{♩}/1$ | Quantization of rhythm |
| [F] | Quantize Data | ALL NOTE CTRL | Types of data to be QUANTIZED All the data Note data (keyboard information) Control data (joy stick, after touch etc.) |
| [G] | | [EXEC] | Executing the quantization |

This function automatically corrects the timing of measures in the specified range to a pre-selected beat length.



1. Specify the track ([A]), first measure ([B]) and number of measures ([C]) to be quantized.
2. Set the preciseness of quantization by using Resolution ([D]). (When $\text{♩}/1$ is set, notes are quantized to the nearest quarter note.)
3. Specify the data to be quantized ([F]).

ALL: all data

NOTE: note data (from keyboard)

CTRL: control data (pitch bend, after touch, modulation, etc.)

4. Execute QUANTIZE by [EXEC].

* When two events of the same kind of control data are moved to the same note-value as a result of quantizing the control data, they are put together into one. Because of this it is possible to thin down the amount of control data and thus economize memory by use of quantization. (The quantization resolution of $\text{♩}/48$ is provided for this purpose.)

F 6 - 1 PATTERN REAL TIME REC (Pattern Real Time Recording)

PATTERN REAL TIME REC Resolution
P02 ♩/48 MM:OFF ♩=120 M1 (ADD) [ERA]

A B C D E F G H

| | | | |
|--------|----------------|------------|---|
| [A] P | Pattern Number | 00~99 | Pattern number to be assigned |
| [B] | Resolution | ♩/48~♩/1 | Quantization of rhythm |
| [C] MM | Metronome | OFF/ON | Metronome sound |
| [E] ♩= | TEMPO | 40 ~ 208 | Tempo (in beats per minute) |
| [F] M | Measure Number | 1 ~ 8 | Measure number |
| [G] | Add/Remove | ADD RMV | Adding to pattern data Deleting pattern data |
| [H] | | [ERA] | Erasing pattern data |

This function allows real time recording, deletion and changing of pattern data. In creating a new pattern, set the time signature and the length (number of measures) in F 6-3 PATTERN INITIALIZE and erase the play data beforehand.

1. Select the pattern to be made ([A]). Patterns made by step write and copy are also selectable.
2. Set the resolution ([B]), metronome ON/OFF ([C]) and tempo ([E]). These are changeable in real time.
3. Start recording by first pressing the REC key, then the START/STOP key; the START/STOP key will light up. In Pattern Real Time Recording, when the last measure is finished, the first measure is returned to and you can continue recording. In this case, all data recorded on the second pass is overdubbed onto the initially recorded data. When mistakes are made in recording, revise by erasing the data.

* In Pattern Real Time Recording, erasing of data can be done in the following two ways:

All existing sequence data is erased by pressing the [ERA] ([H]) key.

Select RMV by pressing ADD/REMOVE ([G]) and play the notes to be erased on the keyboard. The notes played will be the notes erased; if an F3, for example, is part of the sequence data, playing an F3 in this function will erase or remove that note. Only note data, and no other sequence data, is erased here.

4. Recording stops when pressing the START/STOP key. The pattern can be played back by starting play without pressing the REC key. When adding more data, repeat operations 2 through 4.

* In pattern real time recording, the setting of the tempo cannot be memorized.

F 6 - 2 PATTERN STEP RECORDING

| | | | | | | | |
|--------------|----------------|---|---|---|---|---|---|
| PATTERN | STEP RECORDING | | | | | | |
| Pattern = 02 | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|------------|---------------------------|------|------------------------------------|
| [E] | Pattern Pattern Number | 0~99 | Pattern number to be step recorded |
|------------|---------------------------|------|------------------------------------|

| | | | | | | | |
|---------------|------|------|------|---|---|---|---|
| PATTERN | M1 | 1:00 | Step | | | | |
| Step=1/4 | ---- | mf | Ten | | | | |
| [RST][TIE][◀] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|------------|-----------------|----------------------|---|
| [B] | Step | 1/32 ~ 1/1 | Length of the basic note (thirty-second note – whole note) |
| [C] | Triplet/Dot | ----- Trip Dot | Changing the length of the note Note specified by step Triplet of specified note by step Dotted note of the specified note by step |
| [D] | Key Dynamics | <i>ppp ~ fff</i> | Strength (volume) of sound (very weak – very strong) |
| [E] | Staccato/Tenuto | Stac ----- Ten | Style of playing Staccato (cut short) Regular way of playing Tenuto (held to full note-value) |
| [F] | | [RST] | Inputting Rest |
| [G] | | [TIE] | Setting tie |
| [H] | | [◀] | Going back 1 step (Step back) |

Patterns are made by Step Write here. When making new patterns, first set the time signature and length (number of measures) by F 6 - 3, INITIALIZE and erase the existing play data before recording.

1. Select the pattern to be created (**[A]**). Patterns made by real time recording or by the GET function can be also selected.

2. Press the REC key (so that it lights up) and then press the START/STOP key.

3. Operation steps from this point are identical to steps 3 through 8 of F 2-1 STEP RECORDING. However, when recording of the set length (number of measures) is finished, the first measure is returned to and overdubbing begins.

- * The operations of rest (**[F]**) and tie (**[G]**) are the same as that in F 2-1 STEP RECORDING.
- * The step can be moved back as far as set by the step time when pressing step back (**[H]**). Any notes or steps starting from and occupying the space moved back to are deleted.
- * The Program used at the time the pattern is created is the one used for the current track. (When inserting a pattern in the track, the Program becomes the same as that used in the track.)

F 6 - 3 PATTERN INITIALIZE

| | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|
| PATTERN INITIALIZE | | | | | | | |
| Pattern=02 Beat=4 Length=1 [EXEC] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|---------|--------|---|
| [B] | Pattern | 0~99 | Pattern number to be initialized |
| [D] | Beat | 2~6 | Selection of time signature (2/4 – 6/4) |
| [F] | Length | 1~8 | Length of pattern (in measures) |
| [G] | | [EXEC] | Executing the initialize function |

This function sets defaults for the pattern (and erases any existing data). It also sets the time signature and the pattern length (up to eight measures) of each pattern here.

1. Select the pattern number to be initialized ([B]).
 2. Set the time signature ([D]) and the number of measures ([F]) of the pattern.
 3. Initialize by [EXEC].
- * The time signature and the length set here cannot be changed unless re-initialized.
 - * When the specified pattern is used in the song, the display will show, "Pattern used in song." All the patterns in the song are erased by pressing YES ([G]). Pattern initialize is cancelled by pressing NO ([H]).

F 6 - 4 GET PATTERN

| | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|
| PATTERN GET FROM TRACK Pattern | | | | | | | |
| Song00 Tr1 M001 --> P00 [EXEC] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|--------|----------------|---------|---|
| [A] | Source Song | 0 ~ 9 | Song number which has the measure to "GET" |
| [B] Tr | Source Track | 1 ~ 8 | Track number which has the measure to "GET" |
| [C] M | Source Measure | 1 ~ 250 | Number of the first measure to "GET" |
| [E] P | Pattern | 0 ~ 99 | Pattern number from which data is taken |
| [G] | | [EXEC] | Executing the GET PATTERN function |

This function transfers play data to the pattern by copying from a track. Patterns can easily be created from data on the track.

1. Set the time signature and the length of the pattern by using Pattern Initialize (F 6-3) beforehand. Also set the time signature to be the same as the song that will be copied from and set the length to the number of measures desired.
2. Specify the song ([A]), track ([B]) and the first measure ([C]) of the source song and specify the pattern ([E]) of the destination.
3. Copy by pressing the [EXEC] ([G]) key.

- * A prompt for confirmation appears when data already exists in the destination pattern.
- * The copy function cannot be executed when the time signature of the song and the pattern differ.
- * The copy function cannot be executed when there are patterns in the specified source range.
- * When there is a tied note lying between the inside and outside of the specified range, it is copied after deletion of the tie.
- * Edits which cannot be executed on the pattern (quantization, for example) can be accomplished by copying the pattern to an empty track, editing it there, then copying it back to the original track.

F 6 - 5 PATTERN COPY/BOUNCE

| | |
|---------------------|---------------------|
| PATTERN COPY/BOUNCE | |
| (COPY) | P00 ---> P00 [EXEC] |
| A | B C D E F G H |

| | | | |
|-------|----------------|----------------|---|
| [A] | COPY/BOUNCE | COPY BOUNCE | Selection of the function (copy or bounce) Copying from pattern to pattern Bouncing from pattern to pattern |
| [C] P | Source Pattern | 0 ~ 99 | Pattern to be copied (bounced) |
| [E] P | Dest. Pattern | 0 ~ 99 | Destination pattern to be copied (bounced) |
| [G] | | [EXEC] | Executing the copy or bounce |

This function copies and bounces the play data from pattern to pattern.

- * Copying or bouncing cannot be executed when the time signatures or the lengths of the source and destination patterns are different.

Pattern Copy

Copies from pattern to pattern.

1. Specify the source pattern ([C]) and destination pattern ([E]).
2. Copy by pressing the [EXEC] ([G]) key.

Pattern Bounce

This function combines the play data of two patterns into one pattern.

1. Set the source pattern (for bouncing) ([C]) and the destination pattern (for bouncing) ([E]).
 2. Bounce by pressing the [EXEC] ([G]) key.
- * As opposed to the track bounce function, the pattern which was specified as a source is not erased.

F 7 - 1 EVENT EDIT

| | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|
| EVENT EDIT (TRACK) = 1 | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|------------|---------------------------|------------------|--|
| [C] | TRACK/PATTERN | TRACK PATTERN | Selection of material to be edited Track of current song Pattern |
| [E] | Track No./ Pattern No. | 1~8 00~99 | Setting track number (when track is selected) Setting pattern number (when pattern is selected) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| EVENT EDIT Measure | | | | | | | |
| M001 #001 1:00 F#4 U064 0:24 [INS][DEL] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|--------------------------------------|---|--|---|
| [A] M | Measure | 1~250 | Measure to be edited |
| [B] # | Index | 1~ | Selection of event to be edited |
| [C] | Location | TIE, 1:00 ~ 6:47 | Position of event in measure |
| [D] | Event | C-1 ~ G9 BEND AFTT PROG CTRL | Type of event Note Pitch bend After touch Program change Control change |
| [E] V C | Velocity Bend After touch Program Control | 2~126 -8192 ~ 8191 0~127 I00~I99/C00~C99 0~108 | (for note) (for pitch bend) (for after touch) (for program change) (for control change) |
| [F] | Length Data | 0:00 ~ 6:00 TIE 0~127 | Length of note (for note) Control data (for control change) |
| [G] | | [INS] | Inserting event |
| [H] | | [DEL] | Deleting event |

Sequence data having a length of 1 step is called an event. For instance, a note assumes a value of 1 even though it has a combination of data types, such as pitch (note number), volume (velocity) and the length of the sound. Control data also assumes a step value of 1 even though it is a combination of type and value.

* For control data, 1 MIDI message corresponds to 1 event.

Event edit is a function that changes, inserts and deletes any event in the play data of tracks or patterns.

* In event edit, any and all events can be edited; moreover, sequence data is re-written directly. This editing, as a result, is both convenient and dangerous -- dangerous in that play data prior to editing cannot be recovered. Double checking of to-be-edited material is advised.

Event Operation

1. Select either editing of track data or pattern data (**[C]**) and specify the track number or pattern number (**[E]**).
2. Press the REC key, and, when it lights up, press the START/STOP key. You have now called up the EVENT EDIT Mode.
- * Other modes or functions cannot be selected until event editing is finished by pressing the START/STOP key again.
3. Specify the measure to be edited (**[A]**). The first event of that measure is indicated.
4. By increasing the Index (**[B]**) from #001, the events in the measure can be seen in the order of their location (their position in the measure).
- * The location is indicated by the beat number within the measure and by the clock number in the beat. One clock pulse is the same as 1/48 beat. (One MIDI clock pulse is equal to two M1 clock pulses.)

| EVENT EDIT | | | | Event | | | |
|------------|------|------|------|-------|------------|---|---|
| M001 | #004 | 1:04 | BEND | +4095 | [INS][DEL] | | |
| A | B | C | D | E | F | G | H |

| | | | | | | | | | |
|--------|------|------|------|------|------|------|------|------|------|
| Note | | | | | | | | | |
| Length | 0:12 | 0:18 | 0:24 | 0:36 | 1:00 | 1:24 | 2:00 | 3:00 | 4:00 |

- * Note events include: note name (the pitch of the note) (**[D]**), velocity (the strength at which the keys are hit) (**[E]**), and duration (length of sound) (**[F]**).
- * Odd numbers are not available for velocity value settings.
- * When pitch bend, after touch or program change are selected by **[D]** , their values are indicated above **[E]** .

| EVENT EDIT | | | | Event | | | |
|------------|------|------|------|-------|------------|---|---|
| M001 | #004 | 1:04 | BEND | +4095 | [INS][DEL] | | |
| A | B | C | D | E | F | G | H |

- * When control change is selected by **[D]** , the type of control change (control change number) is shown above **[E]** and its value above **[F]** :

| | | |
|----------------|--------------|-------------|
| EVENT EDIT | | Event |
| M001 #005 1:08 | CNTL C064 64 | [INS] [DEL] |
| A | B | C |
| D | E | F |
| G | H | |

| Control Number | Type of Control | Value |
|----------------|------------------|----------------------------|
| 1 | Pitch Modulation | 0 (OFF) ~ 127 (Max.) |
| 2 | VDF Modulation | 0 (OFF) ~ 127 (Max.) |
| 7 | Volume | 0 (Min.) ~ 127 (Max.) |
| 64 | Damper Switch | 0 (OFF), 127 (ON) |
| 102 | VDF Cutoff | 0 (LOW) ~ 64 ~ 127 (HIGH) |
| 103 | Effect 1 Switch | 0 |
| 104 | Effect 2 Switch | 0 |
| 105 | Effect 1 Control | 0 (Min.) ~ 64 ~ 127 (Max.) |
| 106 | Effect 2 Control | 0 (Min.) ~ 64 ~ 127 (Max.) |
| 107 | Tempo Change | 0 (-50%) ~ 64 ~ 127 (+50%) |

- * The control numbers not listed in this chart are the data of control change recorded from MIDI IN.
- * MIDI does not input or output 102 to 107.
- * The measures without events are indicated as below. (Edit functions, with the exception of insert cannot be executed.)

| | | |
|------------|-------------------|---------|
| EVENT EDIT | | Measure |
| M003 | --- No Events --- | [INS] |
| A | B | C |
| D | E | F |
| G | H | |

- * The measures occupied by patterns are indicated as below. (No editing is possible. Changing patterns should be done in F 5 - 1.)

| | | |
|------------|--------------------|---------|
| EVENT EDIT | | Measure |
| M004 | --- Pattern 00 --- | |
| A | B | C |
| D | E | F |
| G | H | |

Editing Events

When Event is selected, the pitch of the sound and type of event can be changed by [D] and the data of the event can be changed by [E] and [F]. (See the Event Operation section for more information.)

Moving Events

The indicated event can be moved within the measure by using Location ([C]).

- * When the order of events changes by moving of an event from one location in the measure to another, the index numbers of the events shift accordingly. (Though the index numbers change, this is completely different than changing the index numbers directly by Index ([B]).)
- * Moving events between measures can be accomplished by using the Delete and Insert functions.

Deleting Events

When an event is selected, the event can be deleted by pressing [DEL] (**H**).

- * The index value of events that follow the deleted event in the measure will decrease by 1. (Location does not change.)
- * If you mistakenly make a deletion, pressing **G** immediately after the deletion will restore it.

Inserting Events

When an event is selected, the same event can be inserted to another location (or the same one, if desired) by pressing [INS] (**G**). Any events can be inserted by moving the location or editing the event.

- * When using the insertion function right after deleting, the deleted event will be inserted.
- * The index value of events following the inserted event in the measure will be increased by 1. (Location does not change.)
- * New tracks can be made by Event Insert. In this case it is necessary to create an empty measure beforehand by using Insert Measure (F 5-3).
- * A note lying over two measures is treated as 2 notes connected with a tie. When editing such notes, follow the procedure below:

A

| EVENT EDIT | | | | | Index | | |
|------------|------|------|----|------|-------|------------|---|
| M001 | #002 | 1:00 | C4 | U064 | TIE | [INS][DEL] | |
| A | B | C | D | E | F | G | H |

B

| EVENT EDIT | | | | Length | | | |
|------------|------|-----|----|--------|------|-------|---|
| M002 | #001 | TIE | C4 | | 0:24 | [INS] | |
| A | B | C | D | E | F | G | H |

1. Edit the note number and velocity of the note in A. The note in B is automatically revised.
2. When changing the note length, edit note in B.
3. When deleting both in A and B, do it in the order of A and B. When deleting only in B, set the note length in A to a value 1 unit smaller than "TIE," then delete in B.
4. When inserting both in A and B, set the note length in A to "TIE" after inserting in A and B separately.

EFFECT PARAMETERS

- F 8 - 1 Effect 1
- F 8 - 2 Effect 1 Parameter
- F 8 - 3 Effect 2
- F 8 - 4 Effect 2 Parameter
- F 8 - 5 Effect Placement
- F 8 - 6 Effect Copy

Descriptions of functions F 8 - 2 and F 8 - 4 are given in the Effect Parameter section following the EDIT PROGRAM Mode chapter.

F 8 - 1 EFFECT 1

| | | | | | | | |
|-----------------|---|---|---|---|---|---|---|
| EFFECT 1 | | | | | | | |
| [01: Hall] :ON | | | | | | | |
| A | B | C | D | E | F | G | H |

Selects the effect type for Effect 1.

| | | |
|---|-------------|--------------------|
| A | EFFECT TYPE | 01~03 No Effect |
| F | SWITCH | OFF/ON [SELECT] |

F 8 - 3 EFFECT 2

Selects the effect type for Effect 2.
Same as F 8 - 1 EFFECT 1.

F 8 - 5 EFFECT PLACEMENT

| | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|
| EFFECT PLACEMENT | | | | | | | |
| [SERIAL P3 =50:50 P4 = 50:50] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | |
|------|------------------|----------------------|
| A | Effect Placement | PARALLEL SERIAL |
| F P3 | Out 3 Panpot | OFF 100:0 ~ 0:100 |
| H P4 | Out 4 Panpot | OFF 100:0 ~ 0:100 |

This function sets the Effect Placement and Pan setting of Outputs 3 and 4. (See pp. 36-37 for more on Effect Placement.)

F 8 - 6 EFFECT COPY

| | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|
| EFFECT COPY | | | | | | | |
| from (COMBINATION) - I00 [COPY] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | |
|---|--|--------------------------------|
| B | | PROGRAM COMBINATION SONG |
| E | | I00-I99 0-9 |
| G | | [COPY] |

See the Effect Parameter section (p.38) for descriptions of F 8 - 2 and F 8 - 4, as well as more about all of the Effect functions.

- * Assigning effects to Programs can be done by Effect Copy (F 8 - 6).

F 9 - 1 EXCHANGE ALL SEQ (Exchange All Sequences)

| | | | | | | | |
|------------------|---|---|---|---|---|---|---|
| EXCHANGE ALL SEQ | | | | | | | |
| [EXEC] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | |
|---|--------|------------------------|
| G | [EXEC] | Executing the exchange |
|---|--------|------------------------|

Exchanges the sequence data of RAM card and that of internal memory.

- * Save and Load functions for sequence data and formatting of the RAM card are done in the Global Mode (F 8-1 to F 9-2).
- * This function cannot be done when the sequence data of internal memory is greater than the capacity of the RAM card or when the sequence data of the RAM card is greater than the capacity of the internal memory.
- * The data of Next Song in the song parameter is replaced: that of internal to card, and card to internal.
- * Make sure to store the songs you want to edit in the internal memory since creating or editing the sequence data directly to the RAM card is impossible.

F 9 - 2 LOAD 1 SONG

| | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|
| Load 1 Song | | | | | | | |
| Card Song 4 ---> Int Song 1 [EXEC] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|-----------|------|---|
| [C] | Card Song | 0~9 | Specifying the song in the card to be loaded |
| [F] | Int Song | 0~9 | Specifying destination song number in the internal memory |
| [G] | | EXEC | Executing the load |

This function loads 1 song from the card.

- * When loading a song that has patterns, load those patterns beforehand (F 9-3).
- * The data of the specified internal song before loading is lost.

1. Specify the song in the card to be loaded ([C]) and the internal song number to which the song will be loaded ([F]).
2. Load by pressing [EXEC] ([G]) key.

When there are different time signatures or pattern lengths used in the song to be loaded from the patterns in the internal memory, the display prompts for confirmation of the load.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Some Patterns Will Not Be Assigned Are You Sure ? [YES] [NO] | | | | | | | |
| A | B | C | D | E | F | G | H |

Selecting YES ([G]) erases these patterns and loads. Load can be cancelled by pressing NO ([H]).

F 9 - 3 LOAD 1 PATTERN

| | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|
| Load 1 Pattern | | | | | | | |
| Card Pat 04---> Int Pat 01 [EXEC] | | | | | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|--------------|--------|--|
| [C] | Card Pattern | 0 ~ 99 | Specifying the pattern in the card to be loaded |
| [F] | Int. Pattern | 0 ~ 99 | Specifying the destination pattern number in the internal memory |
| [G] | | [EXEC] | Executing the load |

Loads 1 pattern in the card.

- * The data of the specified internal pattern before loading is lost.
1. Specify the pattern in the card to be loaded ([C]) and the internal pattern number to which the pattern will be loaded ([F]).
 2. Load by pressing [EXEC] ([G]) key.
- Loading cannot be executed when the internal pattern before loading is presently used in the song.

7 -- GLOBAL MODE

In this mode, parameters relating to the M1 as a whole (master tuning, MIDI settings, etc.) and assignment of drum sounds to the Drum Kit are handled.

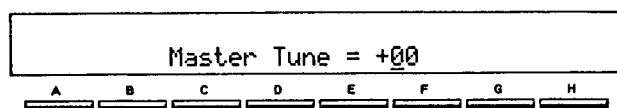
- * Since all parameters in this mode with the exception of a few of the MIDI parameters are stored in memory even when the power is turned off, there is no need to reset them.

FUNCTIONS IN THE GLOBAL MODE

- * The first page of each function is selected by using the numeric keypad (0-9). Select the page where parameters to be edited are by using the PAGE + and PAGE - keys.

| Page | | Parameter to be set |
|------|----------------------------|--|
| 0-1 | Master Tune | Adjustment of the entire instrument's pitch |
| 1-1 | Key Transpose | Transpose setting of the instrument |
| 2-1 | Damper Polarity | Setting the polarity of the foot switch for damper |
| 2 | Pedal Assign | Assignment of each function for the two pedals |
| 3-1 | Scale Type | Selection of scale (Equal temperament, pure major, etc.) |
| 2 | User Scale | Setting the user scale |
| 4-1 | Drum Kit 1 | Assignment of drum sounds |
| 2 | Drum Kit 2 | Assignment of drum sounds |
| 3 | Drum Kit 3 | Assignment of drum sounds |
| 4 | Drum Kit 4 | Assignment of drum sounds |
| 5-1 | MIDI Global | Setting MIDI global channel, local ON/OFF and MIDI clock |
| 2 | MIDI Filtering | Receiving switch for each type of MIDI message |
| 6-1 | Program Memory Protect | Prevents saving of Program parameters (ON/OFF) |
| 2 | Combination Memory Protect | Prevents saving of Combination parameters (ON/OFF) |
| 3 | SEQ Data Memory Protect | Prevents saving of sequence data (ON/OFF) |
| 4 | Memory Allocation | Changing the memory allocation |
| 7-1 | MIDI Data Dump | Transmission of all parameters or sequence data by MIDI system exclusive |
| 8-1 | Load from CARD | Loading from ROM/RAM card to memory |
| 9-1 | Save to CARD | Saving from memory to card |
| 2 | Format CARD | Formatting RAM card |

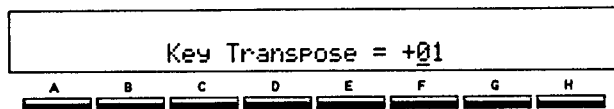
F 0 - 1 MASTER TUNE



| | | |
|-------------|-----------|---|
| Master Tune | -50 ~ +50 | Tuning the overall pitch of the M1 (in cents) |
|-------------|-----------|---|

- * Master Tune is used to adjust the overall tuning of the M1 in the range of +/- 50 cents. This is used when tuning to match the pitch of other instruments.

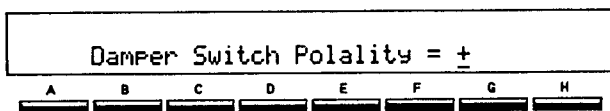
F 1 - 1 KEY TRANSPOSE



| | | |
|---------------|------------|---|
| Key Transpose | - 12 , +12 | Transposition of the overall pitch of the M1 (in semitones) |
|---------------|------------|---|

- * Key Transpose sets the overall pitch of the M1 over a range of +/- 1 octave (-12 to + 12) in semitone steps. This function can be used to change keys to make the playing of music in difficult keys easier.
- * This affects the data recorded to the sequencer and the MIDI OUT data from the keyboard. However, it does not affect the data played by the sequencer.

F 2 - 1 DAMPER POLARITY

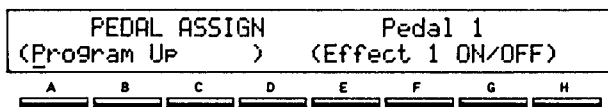


| | | |
|-----------------|------|---|
| Damper Polarity | -, + | Selecting the polarity of the footswitch to be inserted in the damper jack. |
|-----------------|------|---|

Damper Polarity -, + Selecting the polarity of the footswitch to be inserted in the damper jack.

- * Corresponds to the polarity of the footswitch for the damper. Set this to [-] when using (type) such as KORG PS-1, and set to [+] when using other types (type).

F 2 - 2 PEDAL ASSIGN



| A | Pedal 1 | | Function assigned to Pedal 1 |
|---|---------|------------------|--|
| | | Program Up | Footswitch -- Program (Combination) up |
| | | Program Down | Footswitch -- Program (Combination) down |
| | | SEQ Start/Stop | Footswitch -- Start/Stop of sequencer |
| | | Effect 1 ON/OFF | Footswitch -- ON/OFF of Effect 1 |
| | | Effect 2 ON/OFF | Footswitch -- ON/OFF of Effect 2 |
| | | Volume | Volume Pedal -- volume control |
| | | VDF Cutoff | Volume Pedal -- VDF cutoff frequency control |
| | | Effect 1 Control | Volume Pedal -- Effect 1 balance control |
| | | Effect 2 Control | Volume Pedal -- Effect 2 balance control |
| | | Data Entry | Volume Pedal -- adjusting parameter values |

| | | | |
|----------|---------|-------------------|-------------------------------|
| F | Pedal 2 | | Functions assigned to Pedal 2 |
| | | (Same as Pedal 1) | (Same as Pedal 1) |

- * Selects the function to be assigned to Pedal 1 and Pedal 2.
- * Connect footswitch or foot controller to the jack of Pedal 1 or 2 depending on the function to be selected.
- * The range controllable by the foot controller may sometimes be limited by the corresponding parameter settings.
- * Program Up: Switches to the next Program (or, in PROG/COMBI Mode, Combination) by footswitch. When this is selected, MIDI program change data is sent from MIDI OUT.
- * Program Down: Selects the previous Program (or, in PROG/COMBI Mode, Combination) by footswitch.
- * SEQ Start/Stop: Starts and stops the sequencer by footswitch.
- * Effect 1 ON/OFF: Toggles Effect 1 on and off by footswitch.
- * Effect 2 ON/OFF: Toggles Effect 2 on and off by footswitch.
- * Volume: Controls the volume of M1 by foot controller.
- * VDF Cutoff: Changes the cutoff frequency by foot controller. Cutoff frequency is raised by pressing down the pedal. (The sound color becomes brighter.)
- * Effect 1 Balance: Determines the overall balance between the direct sound and the effect sound of Effect 1 by foot controller. The ratio of the effect sound to direct sound becomes greater when pressing down the pedal.
- * Effect 2 Balance: Determines the overall balance between the direct sound and the effect sound of Effect 2 by foot controller. The ratio of the effect sound to direct sound becomes greater when pressing down the pedal.
- * Data Entry: Allows changing and adjustment of parameter values (usually controlled by the VALUE slider on the panel) by using the foot controller. The value of each parameter can be controlled by foot controller while playing if the parameters to be changed are selected beforehand.
- * Make sure to match the footswitch/foot controller connection to the assigned functions.
- * Use the KORG EXP-2 for the foot controller.

NOTE: When no pedals or footswitches are connected to the rear panel jacks, set this function's parameters to correspond to footswitch operation functions (Program Up, Program Down, SEQ Start/Stop, Effect ON/OFF).

F 3 - 1 SCALE TYPE

| SCALE TYPE | | | | | | | |
|----------------|---|---|---|--------|---|---|---|
| (Pure Minor) | | | | Key= E | | | |
| A | B | C | D | E | F | G | H |

| | | | |
|-----|---|-----|---|
| [B] | Equal Temp. (Equal Temperament) | | Equal Temperament |
| | Equal Temp. 2 (Equal Temperament, Random Pitch) | | Random detuning applied to each tone of Equal Temperament scale |
| | Pure Major | | Pure Major |
| | Pure Minor | | Pure Minor |
| | User Programmable | | Scale in which pitch can be set for every key |
| [H] | Key | C~B | |

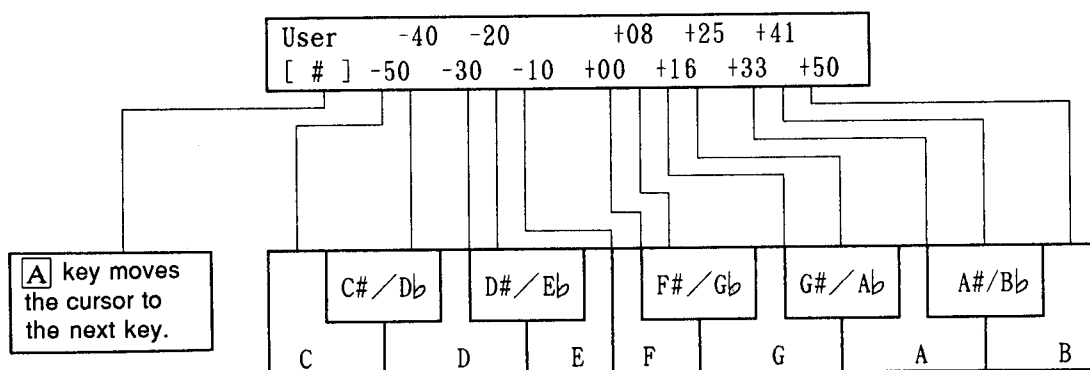
- * Equal Temp. (Equal Temperament): A widely used tuning for keyboard instruments in which chords can be played in any key to the same effect.
- * Equal Temp. 2 (Equal Temperament, Random pitch): This equal temperament scale has random detuning applied to each note of the scale; in other words, every note that is played is detuned from the equal temperament scale by a randomly assigned amount. This is especially useful in reproducing the errors of intonation that occur in the playing of many acoustic instruments or in reproducing instruments whose pitch is slightly unstable.
- * Pure Major: Pure Major is a tuning for which chords played in the selected key are most closely in tune. Select the key from C to B.
- * Pure Minor: Select the key from C to B.
- * User Programmable: Original scales can be created by setting the pitch of each of the 12 tones from C to B in the range of +/- 50 cents (based on equal temperament). With this function, the playing of specific or unique scales besides the preset scales is possible.
- * Scale type is operative in the same way for all Programs.

F 3 - 2 USER SCALE

| | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|
| USER | -40 | -20 | | +08 | +25 | +41 | |
| [#] | -50 | -30 | -10 | +00 | +16 | +33 | +50 |
| A | B | C | D | E | F | G | H |

| | | | |
|---------|------|-----------|--|
| [A] [#] | | | Moves cursor to the key a semitone above present key |
| [B] | C/C# | -50 ~ +50 | Pitch (in cents) of each sound compared to equal temperament |
| [C] | D/D# | -50 ~ +50 | |
| [D] | E | -50 ~ +50 | |
| [E] | F/F# | -50 ~ +50 | |
| [F] | G/G# | -50 ~ +50 | |
| [G] | A/A# | -50 ~ +50 | |
| [H] | B | -50 ~ +50 | |

- * Sets the pitch of each scale when selecting User Scale in the Scale Type function (F 3-1).



- * The 12 tones set here are assigned with the same relative settings to all octaves over the entire range of the instrument.

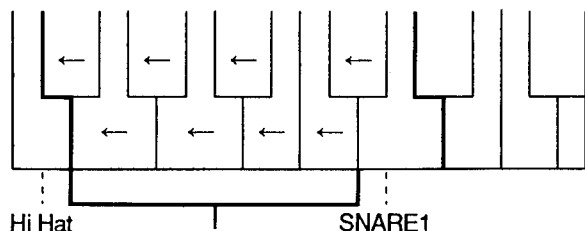
F 4 - 1 DRUM KIT 1

| | | | | | | | |
|------------|----|-----|------|--------|------|-----|---|
| DRUM KIT 1 | | | | Kick 1 | | | |
| #30 | 01 | C#6 | -120 | L+48 | D+13 | 4:6 | |
| A | B | C | D | E | F | G | H |

| | | | |
|-------|-------|-----------------|---|
| [A] # | Index | 0 ~ 29 | Drum sound to be edited |
| [B] | Inst | ---, 01 ~ 44 | Selection of drum sound |
| [C] | Key | C0 ~ G8 | Key to which drum sound is assigned |
| [D] | Tune | -120 ~ +120 | Adjustment of pitch within ± 1 octave |
| [E] | Level | -99 ~ +99 | Level adjustment of each sound |
| [G] | Decay | -99 ~ +99 | Adjustment of decay time of each sound |
| [H] | Pan | A,A:B,B,C,D+D,D | Selection of output |

This function is used to edit the Drum Kit sounds and assign them to Programs of the Drum Kit mode. Up to 30 kinds of drum sounds can be assigned to each of the 4 Drum Kits (1 to 4).

- * Index selects the drum sound to edit.
- * Select the drum sound by using Inst (instrument). (See the back cover for the list of drum sounds.)
- * When using the PCM card (optional) which has drum sounds stored in it, sounds in the card can be selected by adjusting the VALUE dial. (When playing the sound color which uses a drum sound from the card, make sure to put the correct card in the slot.)
- * Set all the instruments of the index which do not need to be assigned to "No Assign".
- * Key sets the key (C0 to G8) to which the sound is assigned. The name of the key is indicated when the octave is set to 8'.
- * Two or more sounds cannot be assigned to the same key.
- * Any sound assigned to a key will also occupy all unassigned keys beneath it, or up to the next assigned key.
- * It is possible to assign the same sound with the same pitch to several different keys.



Snare 1 is assigned to all of these keys (the pitch changes accordingly).

- * Tune, Level and Decay are the parameters which set the volume, pitch and VDA decay time of each drum sound.
- * When changing the corresponding Program parameters, the parameters (volume, for instance) of the whole Drum Kit change.
- * Other Program parameters control the entire Drum Kit as well.
- * Tune sets the pitch of assigned key in the range of -120 to +120 (in 10-cent units, +/- 1 octave).
- * Level sets the relative value to the oscillator level in the PROGRAM Mode over a range of -50 to +50.
- * Decay sets the relative value to the VDA EG Decay setting in the PROGRAM Mode over a range of -50 to +50.
- * Pan determines the output destination from the selection of A, A:B (9:1 to 1:9), B, C, C + D and D.

F 4 - 2--4 DRUM KIT 2--4

- * Identical to F 4-1 DRUM KIT 1.

F 5 - 1 MIDI GLOBAL

| | | |
|-------------|---------|-----------|
| MIDI GLOBAL | | Common CH |
| CH= _1 | CLK:INT | Local:OFF |
| A | B | C |
| D | E | F |
| G | H | |

| | | | |
|----------|--------------|---------|--|
| B | Channel | 1-16 | Input/Output channel of internal play data |
| D | Clock Source | INT/EXT | Selection of transmission or reception of MIDI clock for sequencer |
| G | Local | OFF/ON | MIDI local mode switch |

- * Channel sets the sending and receiving channel of MIDI.
- * When the type is set to Multi in the COMBINATION PLAY Mode or when in the SEQUENCER Mode, MIDI data other than that of channel set here may be handled.
- * When Local is set to OFF, the M1's keyboard and controllers (joy stick, after touch, etc.) will not control the internal sound generation of the M1. (However, MIDI information is both sent and received.) Usually this parameter should be left ON.
- * When Local is set to OFF, the sequencer sends and receives only MIDI data.
- * The default setting, or the setting when power is turned on, is ON.
- * Clock Source should be set to EXT when receiving the play tempo from external sequencers as MIDI clock data. (With this setting the internal tempo of M1 is not operative.) This is used to synchronize with external sequencers and rhythm machines.
- * Make sure to set this function to INT when other MIDI devices are not connected to MIDI IN.
- * The M1 will receive start, stop, continue, song select, and song position data from external MIDI devices only when this function is set to EXT.
- * The default setting, or the setting when power is turned on, is INT.