

### How to Use This Manual

The MOTIF XF Reference Manual (in PDF format) is equipped with special features that are exclusive to electronic files, such as the Link function and the Search function which lets you jump to the desired page by clicking the page number of the specific term.

**NOTE** The MOTIF XF lets you select one of eight different color types (page 220). This manual uses the screen shots which are shown by setting the Color parameter to “Yellow” in the Utility mode. This is the most universal color visibility, allowing the manual to be easily viewed by many people having different types of color recognition.

#### Search Function

This function built into the viewer software is very useful if you want to know the meaning of unfamiliar terms. When using Adobe Reader to read this manual, enter a specific word in the search box, then press the <Enter> key of your computer keyboard to call up the relevant section in this manual.

**NOTE** Make sure to check and download the latest version of the Adobe Reader from the following site.  
<http://www.adobe.com/products/reader/>

#### Previous Page View/Next Page View

When using Adobe Reader, click these buttons in the toolbar to return to the previous page view or go to the next page view.

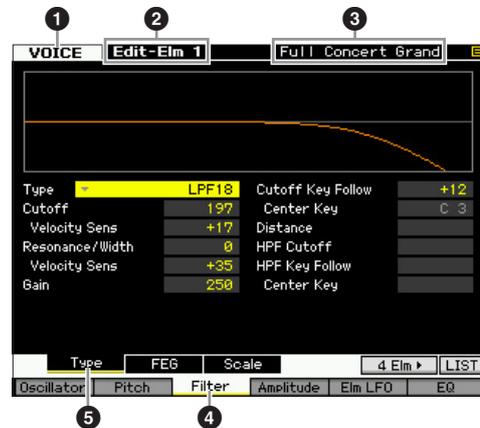
This function is very useful if you want to return to the previous page view after jumping to a linked page.

**NOTE** If the previous page view/next page view buttons are not shown in the toolbar, hold the <Alt> key and press <<->/<->> keys to move to the previous/next page view.

**NOTE** For more information on these and other functions in the software, refer to the owner's manual of the software.

#### Using the Function Tree

The Function Tree of the MOTIF XF is shown on the next page. Use this Function Tree to find desired pages. For example, if you make edits on the display shown below and you want to read explanations of the display, check the five points numbered here.



- ❶ “VOICE” indicates the MOTIF XF is in the Voice mode. Refer to the Voice mode section of the Function Tree.
- ❷ “Edit-Elm 1” indicates that this display lets you edit the Element parameters of the Normal Voice.
- ❸ Here, you can confirm the current Voice Type, Normal Voice or Drum Voice.
- ❹❺ These indicate that the [F3] Filter button then the [SF1] Type button have been pressed.

Applying the five points above to the Function Tree as shown below lets you easily find the desired page.

		Click here to jump.
❶	VOICE	
❷	Edit-Elm	
❸	**** (Normal Voice name)	Page #
	[VOICE] → Normal Voice	[F1] Oscillator 69
	selection → [EDIT] →	[F2] Pitch [SF1] Tune 71
	Element selection →	[SF2] PEG 72
❹	[F3] Filter	❺ [SF1] Type 74
		[SF2] FEG 76
		[SF3] Scale 78
	[F4] Amplitude	[SF1] Level/Pan 79
		[SF2] AEG 80
		[SF3] Scale 81
	[F5] Elm LFO	82
	[F6] EQ	83

# Function Tree

## Voice mode

### Voice Play mode

VOICE	Play	Page #
[VOICE] →	[SF6] INFO*	50
	[F1] Play	48
	[F2] Porta	50
	[F3] EG/EQ	51
	[F4] Arpeggio	52
	[F6] Effect	64

\*Available on certain displays.

### Voice Edit mode (Normal Voice)

VOICE	Edit-Common	***** (Normal Voice name)	Page #
[VOICE] → Normal Voice selection → [EDIT] → [COMMON] →	[F1] General	[SF1] Name	55
		[SF2] Play Mode	55
		[SF3] Other	57
	[F2] ARP Main		58
	[F3] ARP Other		59
	[F4] Ctrl Set		61
	[F5] Com LFO	[SF1] Wave	62
		[SF2] Set	63
		[SF3] User	64
	[F6] Effect	[SF1] Connect	64
		[SF2] Ins A	66
		[SF3] Ins B	
		[SF4] Reverb	
		[SF5] Chorus	

VOICE	Edit-Elm	***** (Normal Voice name)	Page #
[VOICE] → Normal Voice selection → [EDIT] → Element selection →	[F1] Oscillator		69
	[F2] Pitch	[SF1] Tune	71
		[SF2] PEG	72
	[F3] Filter	[SF1] Type	74
		[SF2] FEG	76
		[SF3] Scale	78
	[F4] Amplitude	[SF1] Level/Pan	79
		[SF2] AEG	80
		[SF3] Scale	81
	[F5] Elm LFO		82
	[F6] EQ		83

## Voice Edit mode (Drum Voice)

VOICE	Edit-Common	***** (Drum Voice name)	Page #
[VOICE] → Drum Voice selection → [EDIT] → [COMMON] →	[F1] General	[SF1] Name	85
		[SF2] Play Mode	85
		[SF3] Other	85
	[F2] ARP Main		85
	[F3] ARP Other		85
	[F4] Ctrl Set		86
	[F6] Effect	[SF1] Connect	86
		[SF2] Ins A	86
		[SF3] Ins B	
		[SF4] Reverb	
		[SF5] Chorus	

VOICE	Edit-Key	***** (Drum Voice name)	Page #
[VOICE] → Drum Voice selection → [EDIT] → Drum Key selection →	[F1] Oscillator		87
	[F3] Filter		89
	[F4] Amplitude		89
	[F6] EQ		90

## Voice Job mode

Voice Job	Page #	
[VOICE] → [JOB] →	[F1] Init	91
	[F2] Recall	92
	[F3] Copy	92
	[F4] Bulk	92

## Voice Store mode

Voice Store	Page #
[VOICE] → [STORE]	54

## Performance mode

### Performance Play mode

PERF	Play	Page #
[PERFORM] →	[SF6] INFO*	96
	[F1] Play	95
	[F2] Voice	97
	[F3] EG	97
	[F4] Arpeggio	98
	[F6] Effect	107

\*Available on certain displays.

### Performance Record mode

PERF	Record	Page #
[PERFORM] → [●]	[F1] Setup (Record)	98

### Performance Edit mode

PERF	Edit-Common	Page #
[PERFORM] → [EDIT] → [COMMON] →	[F1] General	[SF1] Name 102
		[SF2] Porta 103
		[SF3] Part EQ 103
		[SF4] Other 104
	[F2] Level/MEF	[SF1] Level 104
		[SF2] Master FX 104
		[SF3] Master EQ 105
	[F4] Audio In	[SF1] Output 106
		[SF2] Connect 106
		[SF3] Ins A 107
		[SF3] Ins B
	[F5] Effect	[SF1] Connect 107
		[SF2] Ins Switch 108
		[SF3] Reverb 108
		[SF4] Chorus

PERF	Edit-Part	Page #
[PERFORM] → [EDIT] → Part selection →	[F1] Voice	[SF1] Voice 109
		[SF2] Output 110
		[SF3] Other 111
	[F2] ARP Main	112
	[F3] ARP Other	114
	[F4] EG	115
	[F5] EQ	116
	[F6] Rcv Switch	116

### Performance Job mode

Performance Job	Page #
[PERFORM] → [JOB] →	[F1] Init 117
	[F2] Recall 117
	[F3] Copy 118
	[F4] Bulk 118

## Performance Store mode

Performance Store	Page #
[PERFORM] → [STORE]	101

## Song mode

### Song Play mode

SONG	Play	Page #
[SONG] →	[SF6] INFO*	142
	[F1] Track View	139
	[F2] Play FX	141
	[F3] Track	[SF1] Out 142
		[SF2] Loop 143
	[F4] Chain	143

\*Available on certain displays.

### Song Record mode

SONG	Record	Page #
[SONG] → [●] (Record)	[F1] Setup	145
	[F2] Arpeggio	147

### Song Edit mode

SONG	Edit	Page #
[SONG] → [EDIT]		150

### Song Job mode

Song Job	Page #
[SONG] → [JOB] →	[F1] Undo/Redo 154
	[F2] Note
	01 Quantize 154
	02 Modify Velocity 155
	03 Modify Gate Time 156
	04 Crescendo 156
	05 Transpose 156
	06 Glide 157
	07 Create Roll 157
	08 Sort Chord 158
	09 Separate Chord 158
	[F3] Event
	01 Shift Clock 158
	02 Copy Event 159
	03 Erase Event 159
	04 Extract Event 159
	05 Create Continuous Data 160
	06 Thin Out 160
	07 Modify Control Data 161
	08 Beat Stretch 161
	[F4] Measure
	01 Create Measure 161
	02 Delete Measure 162

## Song Job mode

Song Job		Page #
[SONG] → [JOB] [F5] Track →	01 Copy Track	162
	02 Exchange Track	163
	03 Mix Track	163
	04 Clear Track	163
	05 Normalize Play Effect	163
	06 Divide Drum Track	163
	07 Put Track to Arpeggio	164
	08 Copy Phrase	164
[F6] Song	01 Copy Song	165
	02 Split Song to Pattern	165
	03 Clear Song	165

## Song Store mode

Song Store	Page #
[SONG] → [STORE]	144

## Pattern mode

### Pattern Play mode

PATTERN	Play	Page #
[PATTERN] →	[SF6] INFO*	169
	[F1] Play	168
	[F2] Play FX	169
	[F3] Track	169
	[F4] Patch	170
	[F5] Chain	171
	[F6] Remix	175

\*Available on certain displays.

### Pattern Chain Record mode

PATTERN	Chain Record	Page #
[PATTERN] → [F5] Chain → [●] (Record)		172

### Pattern Chain Edit mode

PATTERN	Chain Record	Page #
[PATTERN] → [F5] Chain → [EDIT]	[SF1] View Filter	173
	[SF2] Copy	173
	[SF3] Song	174
	[SF4] Insert	174
	[SF5] Delete	174

### Pattern Record mode

PATTERN	Record	Page #
[PATTERN] → [●] (Record)	[F1] Setup	178
	[F2] Arpeggio	147

## Pattern Edit mode

PATTERN	Edit	Page #
[PATTERN] → [EDIT]		179

## Pattern Job mode

Pattern Job		Page #
[PATTERN] →	[F1] Undo/Redo	154
[JOB] →	[F2] Note	01 Quantize 154
		02 Modify Velocity 155
		03 Modify Gate Time 156
		04 Crescendo 156
		05 Transpose 156
		06 Glide 157
		07 Create Roll 157
		08 Sort Chord 158
		09 Separate Chord 158
[F3] Event	01 Shift Clock	158
	02 Copy Event	159
	03 Erase Event	159
	04 Extract Event	159
	05 Create Continuous Data	160
	06 Thin Out	160
	07 Modify Control Data	161
	08 Beat Stretch	161
[F4] Phrase	01 Copy Phrase	182
	02 Exchange Phrase	183
	03 Mix Phrase	183
	04 Append Phrase	183
	05 Split Phrase	184
	06 Get Phrase from Song	184
	07 Put Phrase to Song	184
	08 Clear Phrase	185
[F5] Track	01 Copy Track	185
	02 Exchange Track	185
	03 Mix Track	185
	04 Clear Track	185
	05 Normalize Play Effect	186
	06 Divide Drum Track	186
	07 Put Track to Arpeggio	186
[F6] Pattern	01 Copy Pattern	186
	02 Append Pattern	186
	03 Split Pattern	187
	04 Clear Pattern	187

## Pattern Store mode

Pattern Store	Page #
[PATTERN] → [STORE]	177

## Mixing mode

### Mixing Play mode

SONG PATTERN	Mix Play	Page #
[SONG] / [PATTERN] → [MIXING] →	[F1] Part 1-16	190
	[F2] Audio	191
	[F5] Effect	193
	[F6] Vce Edit	198

### Mixing Edit mode

SONG PATTERN	Edit-Common	Page #
[SONG] / [PATTERN] → [MIXING] → [EDIT] → [COMMON] →	[F1] General	192
	[F2] Master FX	[SF2] Master FX 193
		[SF3] Master EQ 193
	[F4] Audio In	[SF1] Output 193
		[SF2] Connect 193
		[SF3] Ins A 193
		[SF4] Ins B
	[F5] Effect	[SF1] Connect 193
		[SF2] Ins Switch 193
		[SF3] Reverb 193
		[SF4] Chorus

SONG PATTERN	Edit-Part	Page #
[SONG] / [PATTERN] → [MIXING] → [EDIT] → Part selection →	[F1] Voice	[SF1] Voice 194
		[SF2] Output 194
		[SF3] Other 194
	[F2] ARP Main	194
	[F3] ARP Other	194
	[F4] EG	194
	[F5] EQ	195
	[F6] Rcv Switch	195

### Mixing Voice Edit mode (Normal Voice)

SONG PATTERN	Edit-Common	Page #
[SONG] / [PATTERN] → [MIXING] → Normal Voice selection → [F6] Vce Edit → [COMMON] →	[F1] General	[SF1] Name 55
		[SF2] Play Mode 55
		[SF3] Other 57
	[F2] ARP Main	58
	[F3] ARP Other	59
	[F4] Ctrl Set	61
	[F5] Com LFO	[SF1] Wave 62
		[SF2] Set 63
		[SF3] User 64
	[F5] Effect	[SF1] Connect 64
		[SF2] Ins A 66
		[SF3] Ins B

SONG PATTERN	Edit-Elm	Page #
[SONG] / [PATTERN] → [MIXING] → Normal Voice selection → [F6] Vce Edit → Element selection →	[F1] Oscillator	69
	[F2] Pitch	[SF1] Tune 71
		[SF2] PEG 72
	[F3] Filter	[SF1] Type 74
		[SF2] FEG 76
		[SF3] Scale 78
	[F4] Amplitude	[SF1] Level/Pan 79
		[SF2] AEG 80
		[SF3] Scale 81
	[F5] Elm LFO	82
	[F6] EQ	83

### Mixing Voice Edit mode (Drum Voice)

SONG PATTERN	Edit-Common	Page #
[SONG] / [PATTERN] → [MIXING] → Drum Voice selection → [F6] Vce Edit → [COMMON] →	[F1] General	[SF1] Name 85
		[SF2] Play Mode 85
		[SF3] Other 85
	[F4] Ctrl Set	86
	[F6] Effect	[SF1] Connect 86
		[SF2] Ins A 86
		[SF3] Ins B

SONG PATTERN	Edit-Key	Page #
[SONG] / [PATTERN] → [MIXING] → Drum Voice selection → [F6] Vce Edit → Drum Key selection →	[F1] Oscillator	87
	[F3] Filter	89
	[F4] Amplitude	89
	[F6] EQ	90

### Mixing Voice Job mode

Mix Voice Job	Page #
[SONG] / [PATTERN] → [MIXING] → [F6] Vce Edit → [JOB] →	[F2] Recall 200
	[F3] Copy 200
	[F4] Delete 200

### Mixing Voice Store mode

Mix Voice Store	Page #
[SONG] / [PATTERN] → [MIXING] → [F6] Vce Edit → [STORE]	199

### Mixing Job mode

Mix Job	Page #
[SONG] / [PATTERN] → [MIXING] → [EDIT] → [JOB] →	[F1] Init 195
	[F2] Recall 196
	[F3] Copy
	[SF1] Part 196
	[SF2] Voice 196
	[SF3] Perf 197
[SONG] / [PATTERN] → [MIXING] → [EDIT] → [JOB] →	[F4] Bulk 197
	[F5] Template
	[SF1] Mix 197
	[SF2] Perf 197

## Sampling mode

### Sampling mode

SAMPLE	Select	Page #
[VOICE] / [PERFORM] →	[INTEGRATED SAMPLING] →	120
[SONG] / [PATTERN] →	[INTEGRATED SAMPLING] →	203

### Sampling Record mode (Voice/Performance)

SAMPLE	Record	Page #
[VOICE] / [PERFORM] →	[SF6] INFO*	123
[INTEGRATED SAMPLING] →	[F6] Rec	
	STANDBY → [F6] Standby	124
	RECORDING → Sampling start**	125
	FINISHED → Sampling stop**	125

\*Available on certain displays.

\*\*The Sampling start/stop operation actually differs depending on the setting.

### Sampling Record mode (Song/Pattern)

SAMPLE	Record	Page #
[SONG] / [PATTERN] →	[SF6] INFO*	123
[INTEGRATED SAMPLING] →	[F6] Rec	
	STANDBY → [F6] Standby	205
	RECORDING → [F6] Start**	206
	FINISHED → [F6] Stop**	206
	→ [ENTER] (Record Trim display)***	207
	→ [F6] Slice (Record Slice display)***	208

\*Available on certain displays.

\*\*The Sampling start/stop operation actually differs depending on the setting.

\*\*\*Available when "slice+seq" is selected before the Sampling operation.

### Sampling Edit mode

SAMPLE	Edit	Page #
[INTEGRATED SAMPLING] →	[EDIT] →	
	[F1] Trim	127
	[F2] Param	128

### Sampling Job mode

Sample Job	Page #
[INTEGRATED SAMPLING] →	
[JOB] →	
[F1] KeyBank	01 Copy 130
	02 Delete 131
	03 Move 131
	04 Normalize 131
	05 Time Stretch 132
	06 Convert Pitch 132
	07 Fade In/Out 132
	08 Half Sampling Frequency 133
	09 Stereo to Mono 133
	10 Loop-Remix 133
	11 Slice 134

### Sampling Job mode

Sample Job	Page #
[INTEGRATED SAMPLING] →	
[JOB] →	
[F2] Waveform	01 Copy 134
	02 Delete 135
	03 Extract 135
	04 Transpose 135
	05 Rename 135
[F3] Other	01 Optimize Memory 135
	02 Delete All 135
	03 Copy to Flash Memory 135

## Master mode

### Master Play mode

MASTER	Play	Page #
[MASTER] →	[SF6] INFO*	214

\*Available on certain displays.

### Master Edit mode

MASTER	Edit-Common	Page #
[MASTER] →	[EDIT] →	
[COMMON] →	[F1] Name	214
	[F2] Other	214

MASTER	Edit-Zone	Page #
[MASTER] →	[EDIT] →	
Zone selection →	[F1] Transmit	215
	[F2] Note	215
	[F3] Tx Switch	[SF1] Program 215
		[SF2] Control 216
	[F4] Preset	216
	[F5] Knob/Slider	217

### Master Job mode

Master Job	Page #
[MASTER] →	[JOB] →
	[F1] Init 217
	[F4] Bulk 218

### Master Store mode

Master Store	Page #
[MASTER] →	[STORE] →
	213

## Utility mode

### Utility mode

UTILITY		Page #
[UTILITY] →	[SF6] INFO*	219
[F1] Play	[SF1] Play	219
	[SF2] Screen	220
	[SF3] Network	221
	[SF4] Auto Load	223
[F2] I/O		223
[F3] Voice	[SF1] Master FX	224
	[SF2] Master EQ	224
	[SF3] Arpeggio	225
	[SF4] Tuning	225
[F4] Voice Audio	[SF1] Output	226
	[SF2] Connect	227
	[SF3] Ins A	227
	[SF4] Ins B	
[F5] Control	[SF1] Remote	228
	[SF2] MIDI	228
	[SF3] Control	230
[F6] Flash		231

\*Available on certain displays.

### Sequencer Setup mode

Sequencer Setup		Page #
[PERFORM] / [SONG] / [PATTERN] → [SEQ SETUP] →	[F1] Click	231
	[F2] MIDI Filter	232
	[F3] Quick	232
	[F4] Other	233

### Utility Job mode

Utility Job	Page #
[UTILITY] → [JOB]	231

### Utility Store mode

Utility Store	Page #
[UTILITY] → [STORE]	219

## File mode

### File mode

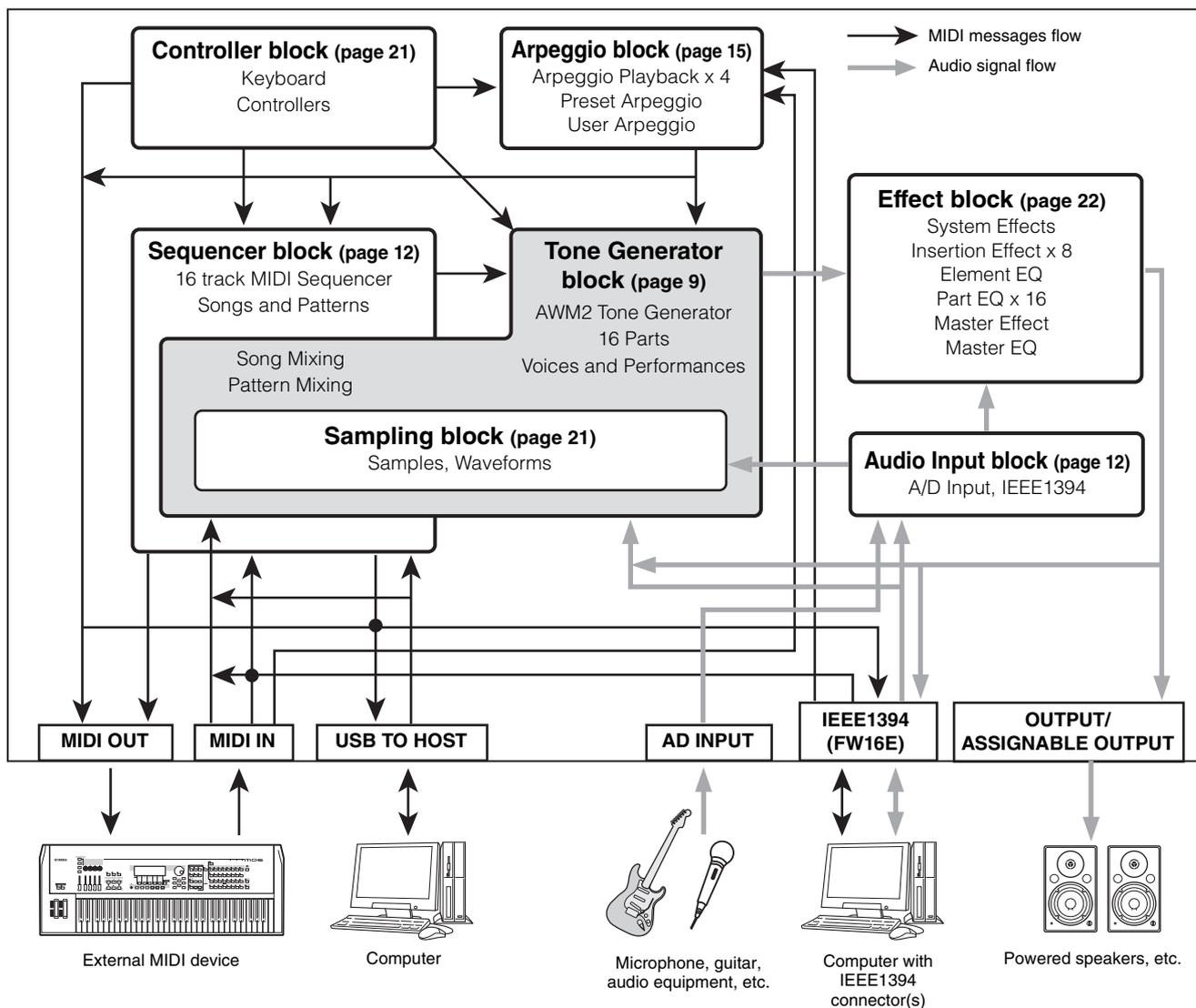
File		Page #
[FILE] →	[F1] File	[SF1] Save 241
		[SF2] Load 242
		[SF3] Rename 238
		[SF4] Delete 238
		[SF5] New Dir 238
	[F2] Mount	239
	[F3] Format	240
	[F4] Audio	[SF1] Rec 248
		[SF2] Play

# Basic Section

## Basic Structure

### The Seven Functional Blocks

The MOTIF XF system consists of 7 main functional blocks: Tone Generator, Sampling, Audio Input, Sequencer, Arpeggio, Controller, and Effect.



# Tone Generator Block

The tone generator block is what actually produces sound in response to the MIDI messages received from the Sequencer block, the Controller block, the Arpeggio block and from the external MIDI instrument via the MIDI IN connector or the USB connector. The structure of the tone generator block differs depending on the mode.

## Tone Generator block in the Voice Mode

### Part structure in the Voice mode

In this mode, the tone generator block receives MIDI data over a single channel. This status is referred to as a “single timbre” tone generator. A Voice is played from the keyboard, using a single part.

Keep in mind that song data on an external sequencer consisting of multiple MIDI channels will not play back properly in this mode. If you are using an external MIDI sequencer or computer to play the instrument, make sure to use the Song mode or Pattern mode.

### Voice

A program that contains the sonic elements for generating a specific musical instrument sound is referred to as a “Voice.” Internally, there are two Voice Types: Normal Voices and Drum Voices. Normal Voices are mainly pitched musical instrument type sounds that can be played over the range of the keyboard. Drum Voices are mainly percussion/drum sounds that are assigned to individual notes on the keyboard.

**NOTE** For instructions on editing a Normal Voice, see page 53. For instructions on editing a Drum Voice, see page 84.

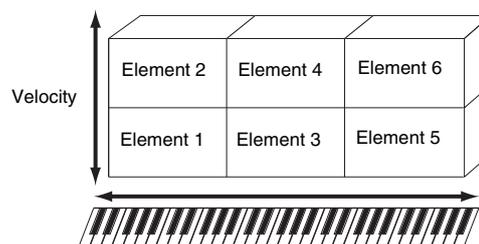
### Normal Voices & Drum Voices

#### Normal Voice

This is a Voice which is played conventionally from the keyboard, with standard pitches sounding for each key. A Normal Voice consists of up to eight Elements. Depending on the settings in the Voice Edit mode, these Elements are sounded simultaneously, or the different Elements are sounded according to the note range, velocity range and the XA (Expanded Articulation) settings.

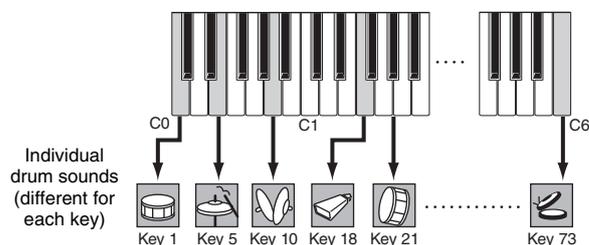
The illustration below is an example of a Normal Voice. Since the six Elements here are distributed across both the note range of the keyboard and the velocity range, a different Element sounds depending on which note you play and how strongly you play it. In the note distribution, Elements 1 and 2 sound in the lower range of the keyboard, Elements 3 and 4 sound in the middle range, and Elements 5 and 6 sound in the higher range. In the velocity distribution, Elements 1, 3 and 5 sound when

playing the keyboard softly, while Elements 2, 4 and 6 sound when playing it strongly. In a practical example of this in use, a piano Voice could be composed of six different samples. Elements 1, 3 and 5 would be the sounds of the piano played softly, over the respective note ranges, while Elements 2, 4 and 6 would be strongly played sounds, for each respective note range. Actually, the MOTIF XF is even more flexible than this, since it allows up to eight independent Elements.



#### Drum Voice (Drum Kit)

Drum Voices are mainly percussion/drum sounds that are assigned to individual notes on the keyboard. A collection of assigned percussion/drum waves or Normal Voices is known as a Drum Kit.



#### Expanded Articulation (XA)

Expanded Articulation (XA) is a specially designed tone generation system that provides greater performance flexibility and acoustic realism. It allows you to more effectively recreate realistic sound and natural performance techniques—such as legato and staccato—and provides other unique modes for random and alternate sound changes as you play.

#### Realistic legato performance

Conventional synthesizers recreate a legato effect by continuing the volume envelope of a previous note on to the next one, in the mono mode. However, this results in an unnatural sound different from that of an actual acoustic instrument. The MOTIF XF more accurately reproduces a legato effect by allowing specific Elements to be sounded when playing legato and other Elements to be played

normally (with the XA Control parameter settings “normal” and “legato”).

### Authentic note release sound

Conventional synthesizers are not good at realizing the sound produced when the note of the acoustic instrument is released. The MOTIF XF realizes the sound produced when the note of the acoustic instrument is released, by setting the XA Control parameter of a certain Element to “key off sound.”

### Subtle sound variations for each note played

Conventional synthesizers attempt to reproduce this by randomly changing the pitch and/or filter. However, this produces an electronic effect and is different from the real sound changes on an acoustic instrument. The MOTIF XF more accurately reproduces these subtle sound variations by using the XA Control parameter settings, “wave cycle” and “wave random.”

### Switching among different sounds to recreate the natural performance on an acoustic instrument

Acoustic instruments have their own unique characteristics—even specific, unique sounds that are produced only at certain times in a performance. These include the flutter tonguing on a flute or playing high harmonics on an acoustic guitar. The MOTIF XF recreates these by allowing you to switch between the sounds while you play—using the ASSIGNABLE FUNCTION buttons and the XA Control parameter settings, “AF 1 on,” “AF 2 on” and “all AF off.”

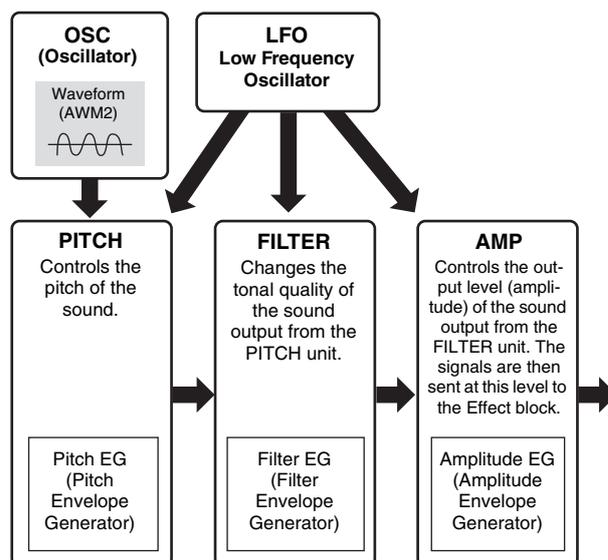
### New sounds and new styles of playing

The highly versatile functions above can be applied effectively not only to acoustic sounds but also to synthesizer and electronic Voices as well. The XA feature opens up enormous potential for realizing authentic sounds, performing expressively and coming up with creative new styles of playing.

To create sounds such as those described above using Expanded Articulation, refer to page 70.

## Elements and Drum Keys

Elements and Drum Keys are the smallest “building blocks” in the MOTIF XF that comprise a Voice; in fact, only one Element or one Drum Key could be used to create a Voice. These small sound units can be built, enhanced and processed by a variety of traditional synthesizer parameters, such as Oscillator, Pitch Filter, Amplitude, and LFO (shown below).



### Oscillator

This unit outputs the wave which determines the basic pitch. You can assign the waveform (or basic sound material) to each Element of a Normal Voice or each Key of a Drum Voice. In the case of a Normal Voice, you can set the note range for the Element (the range of notes on the keyboard over which the Element will sound) as well as the velocity response (the range of note velocities within which the Element will sound). In addition, the XA related parameters can be set in this unit.

Oscillator related parameters can be set in the Oscillator display (pages 69 and 87).

### Pitch

This unit controls the pitch of the sound (wave) output from the Oscillator. In the case of a Normal Voice, you can detune separate Elements, apply Pitch Scaling and so on. Also, by setting the PEG (Pitch Envelope Generator), you can control how the pitch changes over time.

Pitch related parameters can be set in the Pitch display (page 71) and Pitch EG display (page 72) of the Voice Edit mode. Note that Pitch related parameters of a Drum Voice can be set in the Oscillator display.

### Filter

This unit modifies the tone of the sound output from Pitch by cutting the output of a specific frequency portion of the sound. Also, by setting the FEG (Filter Envelope Generator), you can control how the Cutoff Frequency of the Filter changes over time.

Filter related parameters can be set in the Filter display (pages 74 and 89), Filter EG display (page 76) and Filter Scale display (page 78) of the Voice Edit mode.

### Amplitude

This unit controls the output level (amplitude) of the sound output from the Filter block. The signals are then sent at this level to the Effect block. Also, by setting the AEG (Amplitude Envelope Generator), you can control how the volume changes over time.

Amplitude related parameters can be set in the Amplitude display (pages 79 and 89), Amplitude EG display (page 80) and Amplitude Scale display (page 81) of the Voice Edit mode.

## LFO (Low Frequency Oscillator)

As its name suggests, the LFO produces a wave of a low frequency. These waves can be used to vary the pitch, filter or amplitude of each Element to create effects such as vibrato, wah and tremolo. LFO can be set independently for each Element; it can also be set globally for all Elements.

LFO related parameters can be set in the Common LFO display (page 62) and the Element LFO display (page 82) of the Voice Edit mode.

## Memory structure of Voice

### Normal Voice

Preset Banks 1 – 8	1024 Normal Voices (128 Voices for each Bank)
GM Bank	128 Voices
User Banks 1 – 4	512 Normal Voices (128 Voices for each Bank) (By default, User Bank 1 includes the original ones while User Banks 2 – 4 include the ones picked up from the Preset Voices.)

### Drum Voice (Drum Kit)

Preset Drum Bank	32 Voices
GM Drum Bank	1 Voice
User Drum Bank	64 Voices (By default, the original ones are assigned to No. 1 – 8 while the ones picked up from the Preset Voices are assigned to No. 9 – 32.)

## Tone Generator block in the Performance Mode

### Part structure in the Performance mode

In this mode, the tone generator block receives MIDI data over a single channel. This status is referred to as a “single timbre” tone generator. This mode lets you play a Performance (which multiple Voices (Parts) are combined—in a layer, or in other configurations) using the keyboard.

Keep in mind that song data on an external sequencer consisting of multiple MIDI channels will not play back properly in this mode. If you are using an external MIDI sequencer or computer to play the instrument, make sure to use the Song mode or Pattern mode.

## Performance

A program in which multiple Voices (Parts) are combined in a layer, or in other configurations is referred to as a “Performance.” Each Performance can contain up to four different Parts (Voices). Each Performance can be created by editing parameters unique to each part and parameters common to all the Parts.

### Memory structure of Performance

Four User Banks are provided. Each Bank contains 128 Performances. Accordingly, a total of 512 User Performances are provided.

## Tone Generator block in the Song mode/Pattern mode

### Part structure of the tone generator block in the Song mode/Pattern mode

In these modes, multiple Parts are provided and different Voices and different melodies or phrases can be played back for each Part. Because these modes let you set the MIDI channel for each part of the tone generator block, you can use an external MIDI sequencer as well as the sequencer block of the instrument to play the sounds. The sequence data of each track plays the corresponding Parts (those having the same MIDI channel assignment) in the tone generator block.

## About Mixing

A program in which multiple Voices are assigned to Parts for multi-timbral play in the Song and Pattern modes is referred to as a “Mixing.” Each Mixing can contain up to 16 parts. Each Mixing can be created by editing parameters unique to each Part and parameters common to all the Parts in the Mixing mode (page 192).

### Memory structure of Mixing

A Mixing program is provided for each Song or Pattern. Selecting a different Song/Pattern calls up the different Mixing program.

#### Song mode

64 Mixing settings (one Mixing for each Song)

#### Pattern mode

64 Mixing settings (one Mixing for each Pattern)

**Maximum Polyphony**

Maximum polyphony refers to the highest number of notes that can be sounded simultaneously from the internal tone generator of the instrument. The maximum polyphony of this synthesizer is 128. When the internal tone generator block receives a number of notes exceeding the maximum polyphony, previously played notes are cut off. Keep in mind this may be especially noticeable with Voices not having decay. Furthermore, the maximum polyphony applies to the number of Voice Elements used, not the number of Voices. When Normal Voices that include up to eight Elements are used, the maximum number of simultaneous notes may be less than 128.

## Sampling Block

The Sampling Block lets you bring your own recorded sounds—your voice, an instrument, rhythms, special sound effects, etc.—into the system of this synthesizer, and play those sounds just like any other voices. These sounds, the audio data can be captured from the A/D Input and IEEE1394 connector (available when the optional FW16E is installed) with up to 16 bit and 44.1 kHz quality.

Keep in mind that the data created by the Sampling operation differs depending on the mode from which you entered the Sampling mode: Voice/Performance or Song/Pattern. See pages 119 and 201 respectively.

## Audio Input block

This block handles the audio signal input from the A/D Input and the IEEE1394 connector (available when the optional FW16E is installed). Various parameters such as volume, pan, and effect can be set for the audio signal and the sound is output together with other Voices. The Insertion Effect as well as the System Effects can be applied to the audio signal input via the A/D INPUT connector.

The Audio Input related parameters can be set in the following display.

Mode	Display	Page
Voice mode	[F4] Voice Audio display in the Utility mode	226
Performance mode	[F4] Audio In display in the Performance Edit mode	106
Song/Pattern mode	[F4] Audio In display in the Mixing Edit mode	193

The gain of the audio signal from the A/D INPUT connector can be adjusted via the Gain knob on the rear panel.

## Sequencer Block

This block lets you create Songs and Patterns by recording and editing your performances as MIDI data (from the controller block), then playing it back with the tone generator block.

### Sequencer block in the Song mode

#### What is a Song?

A Song is made by the MIDI sequence data created by recording your keyboard performance to each track. A Song on this synthesizer is effectively the same as a Song on a MIDI sequencer, and playback automatically stops at the end of the recorded data.

#### Song Track Structure

A Song consists of 16 separate tracks, a Scene track, and a Tempo track.

#### Sequence tracks 1 – 16

Record your keyboard performance to these tracks using Realtime recording (page 144) and edit the recorded data in the Song Edit mode (page 150).

### Scene track

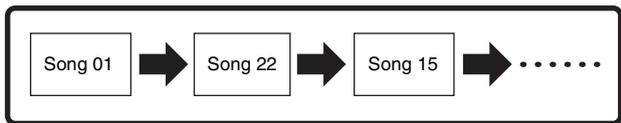
This track lets you record Scene change settings, such as the status of track mute and solo. These can be set in the Song Play display (page 136) and recalled during Song playback. During Song playback, the track mute and solo settings change automatically according to the settings you've recorded to the Scene track. You can record this track with using Realtime recording (page 144) and edit the recorded data in the Song Edit mode (page 150).

### Tempo track

This track lets you record Tempo change settings. During Song playback, the Tempo changes automatically according to the settings you've recorded to this track. You can record this track with using Realtime recording (page 144) and edit the recorded data in the Song Edit mode (page 150).

### Song Chain

This function allows Songs to be "chained" together for automatic sequential playback. For instructions on using this, see page 143.



## Sequencer Block in the Pattern mode

### What is a Pattern?

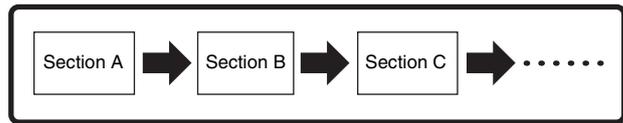
In the MOTIF XF, the term "Pattern" refers to a relatively short musical or rhythmic phrase—1 to 256 measures—which is used for looped playback. Therefore, once Pattern playback starts, it continues until you press the [■] (Stop) button.

### Section

Patterns are more than just a single phrase—they include 16 variations called "Sections." These Sections can be changed during playback and used as rhythmic/backing variations for the various parts of a Song. For example, you could use one Section for the verse, another for the chorus, and a third for the bridge. The Pattern related settings such as tempo and Mixing do not change even when the Section is switched, keeping the overall playback consistent in feel and rhythm through the changes. For instructions on selecting a Pattern and Section, see page 166.

### Pattern Chain

Pattern Chain allows you to string several different Sections (within a single Pattern) together to make a single, complete Song. You can have the MOTIF XF automatically change Sections by creating a Pattern Chain beforehand, recording Pattern playback with Section changes from the Pattern Chain display. You can also use this feature when creating Songs based on a certain Pattern, since the created Pattern Chain can be converted into a Song in the Pattern Chain Edit (page 174). One Pattern Chain can be created for each Pattern.



### Phrase

This is the basic MIDI sequence data in a track—and the smallest unit—used in creating a Pattern. "Phrase" is a short musical/rhythmic passage for a single instrument, such as a rhythm pattern for the rhythm part, a bass line for the bass part, or a chord backing for the guitar part. This synthesizer features memory space for 256 of your own original User Phrases.

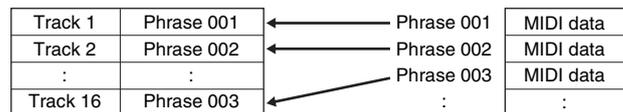
**NOTE** The MOTIF XF provides no Preset Phrases.

### Pattern Track Structure

A Pattern consists of 16 separate tracks, a Scene track, and a Tempo track (just as in a Song). See page 12.

### Pattern Tracks and Phrases

A Pattern consists of 16 tracks to which the Phrase can be assigned. MIDI data cannot be directly recorded to each track in the Pattern mode. Recording is done to an empty user phrase. The newly created phrase is automatically assigned to the recording track.



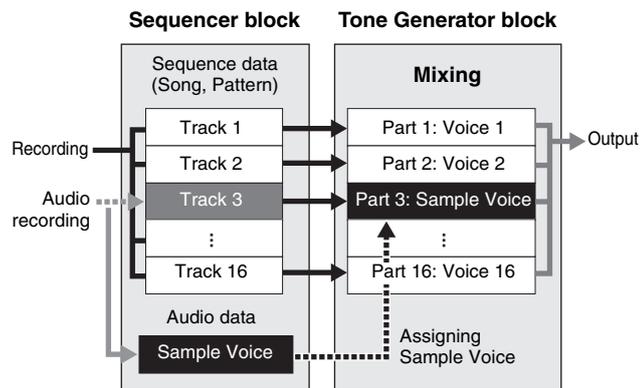
## Sequencer Block applied to both the Song and Pattern

### MIDI tracks and Audio tracks

Depending on the recording method, the Song/Pattern tracks (1 – 16) of this synthesizer are divided into two groups: MIDI tracks and Audio tracks.

MIDI tracks are created by recording your keyboard performance in the Song Record mode/Pattern Record mode. MIDI sequence data is recorded to the MIDI track and the Normal Voice or Drum Voice is assigned to the Mixing part corresponding to the track.

Audio tracks are created by recording audio signal from the external equipment or microphone via the A/D Input jack in the Sampling Record mode. Actually, audio data is not recorded directly to a track but rather is sampled via the Sampling operation. The recorded audio signal is stored as a Sample Voice to a Song/Pattern. The stored Sample Voice will automatically be assigned to the Mixing Part corresponding to the specified track, and the MIDI data for triggering the Sample Voice is recorded to the specified track. During playback, the MIDI data of the track triggers the Sample Voice. As a result, the track effectively functions as an Audio recorded track.

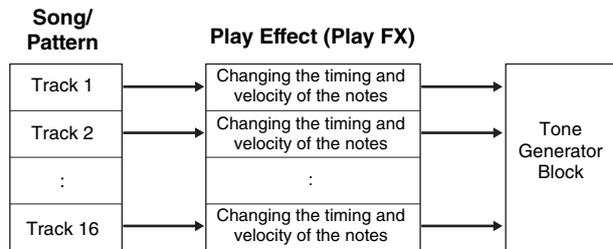


Audio data is recorded to a Sample Voice which is to be assigned to a Song/Pattern, and note on/off events for triggering the recorded audio signal are recorded to Track 3.

- MIDI data
- Audio data
- .... MIDI data for triggering the Sample Voice

### Play Effect (Play FX)

The Play Effect lets you change the rhythmic “feel” of the Pattern playback by changing the timing and velocity of the notes temporarily and on playback only, leaving the original data intact. This feature can be set in the Play FX display of the Song Play mode and Pattern Play mode. See pages 141 and 169 respectively. If you find a setting you like, you can convert it to actual MIDI data by using the Song Job (page 153) or Pattern Job (page 181).



## Sequencer Block applied to the Performance mode

### Performance Recording

You can record your keyboard performance in the Performance mode to the Song or Pattern. You can record knob operations, controller operations and Arpeggio playback as well as your keyboard playing to the specified track as MIDI events. Arpeggio playback data for Parts 1 – 4 of the Song/Pattern respectively. Your keyboard performance and controller/knob operations (common to Parts 1 – 4) will be recorded to tracks 1 – 4 separately.

**NOTE** In Performance Recording, the following knob operations can be recorded.

- When TONE 1 is turned on: CUTOFF, RESONANCE, ATTACK, DECAY and RELEASE
- When TONE 2 is turned on: PAN, REVERB and CHORUS

Other knob operations and the Slider operation cannot be recorded.

**NOTE** For instructions on recording a Performance, see page 98.

# Arpeggio Block

This block lets you automatically trigger musical and rhythmic phrases using the current Voice by simply pressing a note or notes on the keyboard. The Arpeggio sequence also changes in response to the actual notes or chords you play, giving you a wide variety of inspiring musical phrases and ideas—both in composing and performing.

Four Arpeggio types can be played back at the same time even in the Song mode and Pattern mode.

## Arpeggio Category

The Arpeggio types are divided into 16 categories (excepting “NoAsg”) as listed below.

### Category List

ApKb	Acoustic Piano & Keyboard
Organ	Organ
GtPl	Guitar / Plucked
GtMG	Guitar for “Mega Voice”
Bass	Bass
BaMG	Bass for “Mega Voice”
Strng	Strings
Brass	Brass
RdPp	Reed / Pipe
Lead	Synth Lead
PdMe	Synth Pad / Musical Effect
CPrc	Chromatic Percussion
DrPc	Drum / Percussion
Seq	Synth Seq
Hybrd	Hybrid Seq
Cntr	Control
NoAsg	No Assignment

**NOTE** Categories named “GtMG” and “BaMG” include Arpeggio types appropriate for using with a Mega Voice.

### Mega Voices and Mega Voice Arpeggios

Normal Voices use velocity switching to make the sound quality and/or level of a Voice change according to how strongly or softly you play the keyboard. This makes these Voices respond naturally. However Mega Voices have a very complex structure with many different layers that is not suitable for playing manually. Mega Voices were developed specifically to be played by Mega Voice arpeggios to produce incredibly realistic results. You should always use Mega Voices with Mega Voice Arpeggios (included in “GtMG” and “BaMG” category). See the Voice with ARP parameter on page 147 for more details.

## Arpeggio Sub Category

The Arpeggio categories are divided into sub categories as listed below. Because the sub categories are listed based on the music genre, it is easy to find the sub category appropriate for your desired music style.

### Sub Category List

Rock	Rock
PopRk	PopRk
Balad	Ballad
HipHp	Hip Hop
R&B-M	R&B Modern
R&B-C	R&B Classic
Funk	Funk
Tekno	Techno / Trance
House	House / Dance Pop
D&B	D&B / Breakbeats
Chill	Chillout / Ambient
Jazz	Jazz / Swing
Latin	Latin
World	World
Genrl	General
Comb	Combination
Zone	Zone Velocity*
Z.Pad	Zone Velocity for Pad*
Filtr	Filter
Exprs	Expression
Pan	Pan
Mod	Modulation
Pbend	Pitch Bend
Asign	Assign 1/2
---	No Assignment

**NOTE** Arpeggio types belonging to the Sub Categories marked with an asterisk (\*) contain some velocity ranges, to each of which a different phrase is assigned. When a type of these categories is selected in the Voice mode, it is a good idea to set the Velocity Limit of each Element to the same range as below.

Velocity ranges of each Arpeggio type  
 2Z\_\*\*\*\*\*: 1 – 90, 91 – 127  
 4Z\_\*\*\*\*\*: 1 – 70, 71 – 90, 91 – 110, 111 – 127  
 8Z\_\*\*\*\*\*: 1 – 16, 17 – 32, 33 – 48, 49 – 64, 65 – 80, 81 – 96, 97 – 108, 109 – 127  
 PadL\_\*\*\*\*\*: 1 – 1, 2 – 2, 3 – 127  
 PadH\_\*\*\*\*\*: 1 – 112, 113 – 120, 121 – 127

## Arpeggio Type Name

The Arpeggio Types are named according to certain rules and abbreviations. Once you understand these rules and abbreviations, you'll find it easy to browse through and select the desired Arpeggio Types.

### Arpeggio type with “\_ES” at the end of the type name (example: HipHop1\_ES)

These Arpeggio types use the same multi track Arpeggio architecture as the MOTIF ES. This ES type of arpeggio has the following benefits:

- These arpeggios can create complex notes and chords even when triggered by one note.
- The arpeggio closely follows the notes played on the keyboard (but the area where the arpeggio is assigned) allowing a good deal of harmonic freedom and the possibility to “solo” using these arpeggios.

For details, see page 18.

### Arpeggio type with “\_XS” at the end of the type name (example: Rock1\_XS)

These Arpeggios use a newly developed chord recognition technology to determine what notes should be played back by the Arpeggio. This XS type of arpeggio has the following benefits:

- The arpeggios respond only to any area on the keyboard where an XS type of arpeggio is assigned. Other areas of the keyboard do not effect the chord recognition. This allows very natural keyboard playing across the entire keyboard with arpeggio generated bass and backing parts.
- The arpeggio will always play harmonically correct parts. These are especially useful for bass and chordal backing parts.

See page 18 for more details.

**NOTE** Combining these two kinds of Arpeggios types (named “\*\_ES” and “\*\_XS”) in performances when creating Songs and Patterns allows tremendous interactivity and creative freedom.

### Arpeggio type with a normal name (example: UpOct1)

In addition to the above types, there are three playback types: the Arpeggios created for use of Normal Voices and played back using only the played notes and their octave notes (page 18), the Arpeggios created for use of Drum Voices (page 18), and Arpeggios containing mainly non-note events (page 18).

### Arpeggio type with “\_AF1,” “\_AF2,” or “\_AF1&AF2” (example: Electro Pop AF1)

When this Type is triggered, the ASSIGNABLE FUNCTION [1] button, [2] button, or both buttons will be turned on during playback.

## How to use the Arpeggio Type List

The Arpeggio Type list in the Data List contains the following columns.

1	2	3	4	5	6	7	8	9	10
Main Category	Sub Category	ARP No.	ARP Name	Time Signature	Length	Original Tempo	Accent	Random SFX	Voice Type
ApKb	Rock	1	70sRockB	4 / 4	2	130			Acoustic Piano
ApKb	Rock	2	70sRockC	4 / 4	1	130			:
ApKb	Rock	3	70sRockD	4 / 4	2	130			
ApKb	Rock	4	70sRockE	4 / 4	4	130			
ApKb	Rock	5	70sRockF	4 / 4	2	130			
ApKb	Rock	6	70sRockG	4 / 4	1	130			
ApKb	Rock	7	70sRockH	4 / 4	1	130			

**NOTE** Note that this list is for illustration purposes only. For a complete listing of the Arpeggio Types, refer to the Data List.

#### 1 Category

Indicates an Arpeggio Category.

#### 2 Sub Category

Indicates an Arpeggio Sub Category.

#### 3 ARP No. (Arpeggio Number)

#### 4 ARP Name

Indicates the Arpeggio Name.

#### 5 Time Signature

Indicates the time signature or meter of the Arpeggio type.

#### 6 Length

Indicates the data length (amount of measures) of the Arpeggio type. When the Loop parameter<sup>\*1</sup> is set to “off,” the Arpeggio plays back for this length and stops.

#### 7 Original Tempo

Indicates the appropriate tempo value of the Arpeggio type. Note that this tempo is not set automatically when selecting an Arpeggio type.

#### 8 Accent

The circle indicates that the Arpeggio uses the Accent Phrase feature (page 17).

#### 9 Random SFX

The circle indicates that the Arpeggio uses the SFX feature (page 17).

#### 10 Voice Type

Indicates the voice type appropriate for the Arpeggio Type. When the Voice With Arpeggio parameter<sup>\*2</sup> is set to “on” in the Song/Pattern Record mode, the voice of this type is automatically selected.

\*1 The Loop parameter can be set in the Arpeggio Other display of Voice Common Edit (page 59), Performance Part Edit (page 114) and Mixing Part Edit (page 194).

\*2 The Voice with Arpeggio parameter can be set in the Arpeggio display (page 147) of the Song/Pattern Record display.

## Arpeggio related settings

There are several methods for triggering and stopping the Arpeggio playback. In addition, you can set whether or not SFX sounds and special Accent Phrases are triggered along with the normal sequence data. This section covers the Arpeggio related parameters which can be set in the Voice, Performance and Mixing modes.

### Turning Arpeggio playback on/off

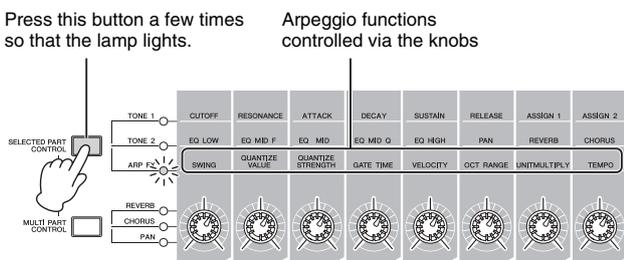
The following three settings are available for turning the Arpeggio playback on/off.

To play the Arpeggio only when the note is pressed:	Set the Hold parameter to "off" and the Trigger mode to "gate."
To continue the Arpeggio even if the note is released:	Set the Hold parameter to "on."
To toggle the Arpeggio playback on/off whenever the note is pressed:	Set the Trigger mode to "toggle." The Hold parameter can be set to either "on" or "off."

**NOTE** For the displays including the Hold and Trigger mode parameter, refer to "Arpeggio setting display" below.

### Using the knobs to control Arpeggios

When the ARP FX lamp is turned on by pressing the [SELECTED PART CONTROL] button a few times, you can use the knobs to control Arpeggio playback. Try this out and listen for the changes in the sound. For details, see page 46.



### Accent Phrase

Accent Phrases are composed of sequence data included in some Arpeggio types, sounding only when you play notes at a velocity higher (stronger) than that specified in the Accent Velocity Threshold parameter. If it is hard to play at velocities necessary to trigger the Accent Phrase, set the Accent Velocity Threshold parameter to a lower value.

**NOTE** For the displays including the Accent Velocity Threshold parameter, refer to "Arpeggio setting display" below.

**NOTE** For information on Arpeggio types that use this function, refer to the Arpeggio Type List in the Data List.

## Random SFX

Some Arpeggio types feature a Random SFX function which will trigger special sounds (such as guitar fret noises) when the note is released. The following parameters affecting Random SFX are provided.

For turning the Random SFX on/off:	Random SFX parameter
For setting the volume of the SFX sound:	Random SFX Velocity Offset parameter
For determining whether or not the volume of the SFX sound is controlled by velocity:	Random SFX Key On Control parameter

**NOTE** For the displays that include Random SFX, Random SFX Velocity Offset and Random SFX Key On Control, refer to "Arpeggio setting display" below.

**NOTE** For information on Arpeggio types that use this function, refer to the Arpeggio Type List in the Data List.

### Arpeggio setting displays

Mode	Display	Page
Voice mode	Arpeggio Main display of Voice Common Edit	58
	Arpeggio Other display of Voice Common Edit	59
Performance mode	Arpeggio Main display of Performance Part Edit	112
	Arpeggio Other display of Performance Part Edit	114
Song mode/Pattern mode (for playback)	Arpeggio Main display of Mixing Part Edit	194
	Arpeggio Other display of Mixing Part Edit	194
Song Record mode	Arpeggio display of Song Record	147
Pattern Record mode	Arpeggio display of Pattern Record	

Basic Structure

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Connections

Basic Section

## Arpeggio playback types

The Arpeggio playback features four main playback types as described below.

### Arpeggio Types for Normal Voices

Arpeggio types (belonging to the categories except for the DrPC and Cntr) created for use of Normal Voices have the following three playback types.

#### Playback only of the played notes

The Arpeggio is played back using only the played note and its octave notes.

#### Playback of a programmed sequence according to the played notes

These Arpeggio types have the several sequences each of which is suited for a certain chord type. Even if you press only one note, the Arpeggio is played back using the programmed sequence—meaning that notes other than the ones you play may be sounded. Pressing another note triggers the transposed sequence regarding the pressed note as a root note. Adding notes to those already held changes the sequence accordingly. An Arpeggio with such a playback type has “\_ES” at the end of the type name.

#### Playback of a programmed sequence according to the played chord type

These Arpeggio types created for use with Normal Voices are played back to match the chord type determined by detecting the notes you play on the keyboard. An Arpeggio with such a playback type has “\_XS” at the end of the type name.

**NOTE** When the Key Mode parameter is set to “sort” or “sort+direct,” the same sequence is played back no matter what order you play the notes. When the Key Mode parameter is set to “thru” or “thru+direct,” a different sequence is played back depending on the order you play the notes.

**NOTE** Since these types are programmed for Normal Voices, using them with Drum Voices may not give musically appropriate results.

### Arpeggio Types for Drum Voices (Category: DrPc)

These arpeggio types are programmed specifically for use with Drum Voices, giving you instant access to various rhythm patterns. Three different playback types are available.

#### Playback of a drum pattern

Pressing any note(s) will trigger the same rhythm pattern.

#### Playback of a drum pattern, plus additional played notes (assigned drum instruments)

Pressing any note will trigger the same rhythm pattern. Adding notes to the one already held produces additional sounds (assigned drum instruments) for the drum pattern.

#### Playback only of the played notes (assigned drum instruments)

Playing a note or notes will trigger a rhythm pattern using only the notes played (assigned drum instruments). Keep in mind that even if you play the same notes, the triggered rhythm pattern differs depending on the order of the notes played. This gives you access to different rhythm patterns using the same instruments simply by changing the order in which you play the notes when the Key Mode parameter is set to “thru” or “thru+direct.”

**NOTE** The three playback types above are not distinguished by category name or type name. You'll have to actually play the types and hear the difference.

**NOTE** Since these types are programmed for Drum Voices, using them with Normal Voices may not give musically appropriate results.

### Arpeggio Types containing mainly non-note events (Category: Cntr)

These arpeggio types are programmed primarily with Control Change and Pitch Bend data. They are used to change the tone or pitch of the sound, rather than play specific notes. In fact, some types contain no note data at all. When using a type of this category, set the Key Mode parameter to “direct,” “thru+direct,” or “sort+direct.”

**NOTE** The Key Mode parameter can be set in the Arpeggio Main display of Voice Common Edit (page 58), Performance Part Edit (page 112) and Mixing Part Edit (page 194).

## Tips for Arpeggio playback

### Arpeggio playback in the Voice Play mode

Try out the Arpeggio playback assigned to the preset Voice.

- 1 In the Voice Play mode, make sure that the [ARPEGGIO ON/OFF] button is lit, then play any note to trigger Arpeggio playback.**
- 2 Try playing different notes and chords on the keyboard and listen to the Arpeggio play.**  
Arpeggio playback responds in different ways, depending on the order of the notes you play and, of course, the selected Arpeggio Type. Also, try hitting the notes strongly and listen for the Accent Phrase feature.
- 3 Try out various Arpeggio types by pressing the [SF1] – [SF5] buttons.**  
**NOTE** If the 8th note icon is not shown at the right of ARP1 – ARP5 (meaning that Arpeggio Type is set to off in the corresponding display), the Arpeggio Type does not change even if you press the corresponding [SF1] ARP1 – [SF5] ARP5 button.
- 4 Use the knobs to control Arpeggio playback after pressing the [SELECTED PART CONTROL] button a few times (the ARP FX lamp lights).**

Now that you've listened to the Arpeggio Types assigned to the preset Voice, go on and try out some of the other Arpeggio Types available.

- 5 During Arpeggio playback, press the [F4] button to call up the Arpeggio display, then select an Arpeggio type.**  
For best results, you should select a Category and Sub Category containing Arpeggio Types that most closely match the currently selected Voice. Once you find an Arpeggio Type that fits, keep it in the display settings and store the Voice (below).
- 6 Store the Arpeggio settings as a User Voice.**  
For detailed instructions on storing a Voice, see page 54.

### Arpeggio playback/recording in the Performance mode

Call up some of the Performances in User Banks 1 – 4, and play some of the Arpeggios assigned by default to the Performances. In the Performance mode, each of four Arpeggio types is assigned to each of four Parts. This means up to four Arpeggio types can be played back simultaneously. Let's play the Performance making full use of this function.

- 1 Make sure that the [ARPEGGIO ON/OFF] button is lit, then play any note to trigger Arpeggio playback.**

Steps 2 – 4 are same as in “Arpeggio playback in the Voice mode” above. Once you've tried out the Arpeggio Types assigned to the Performance, go on and try some of the other Arpeggio Types available.

- 5 During Arpeggio playback, press the [F4] button to call up the Arpeggio display then select an Arpeggio type for each Part.**  
For best results, you should select a Category and Sub Category containing Arpeggio Types that most closely match the Voice for the Part. Once you find an Arpeggio Type that fits, keep it in the display settings and store the Performance (below).
- 6 Store the Arpeggio settings as a User Performance.**  
For detailed instructions on storing a Performance, see page 101.

You can record your keyboard performance to a Song/Pattern in the Performance Record mode. Keep in mind that any Arpeggio playback you trigger in the Performance mode can be recorded to the Song or Pattern as well. For details about the Performance recording, see page 98.

**NOTE** The Arpeggio playback data is recorded to the Song or Pattern track as MIDI sequence data. Note that pressing the note only triggers the Arpeggio playback. The Song or Pattern data will not trigger the Arpeggio playback.

## Arpeggio playback/recording in the Pattern mode

Arpeggios are also useful for creating Phrases, which can be used as the basic building blocks in making a Pattern. Create User Phrases as desired then assign them to the desired track in the Patch display (page 170). This section shows how to record a Arpeggio playback to a Pattern track.

### 1 Select an Arpeggio type in the Arpeggio display (page 178) of the Pattern Record mode.

When the Arpeggio With Voice Switch parameter is set to “on,” the Voice appropriate for this Arpeggio type is automatically selected.

### 2 Record playback of the selected Arpeggio to the Pattern track.

Record different Arpeggios to other tracks by repeating steps 1 – 2. It is a good idea to assign a name to the created Phrase in the Pattern Patch display (page 170) for future recall.

### 3 Create Pattern data by assigning the created Phrases to the Section in the Pattern Patch display (page 170).

For example, create a Section A for the intro, a Section B for the verse, a Section C for the chorus, and a Section D for the ending—and you have the basic blocks to build an original Song.

### 4 Create the Pattern Chain data by programming the playback order of the Sections.

Pattern Chain allows you to string several different Patterns together to make a single Song. For details, see page 171.

### 5 Convert the Pattern Chain data to Song data.

For details, see page 174.

## Creating an original Arpeggio type

In addition using the preset Arpeggios, you can also create your own original Arpeggio data. The procedure is as follows.

### 1 Record the MIDI sequence data to a Song or Pattern.

Up to four tracks can be used in creating an Arpeggio. Up to 16 unique note numbers can be recorded to the Arpeggio track. If more than 16 different note numbers have been recorded to the MIDI sequence data, the Convert operation automatically reduces the notes in excess of the limit. Because of this, be careful to record only up to 16 different notes when you create an Arpeggio.

### 2 Convert the recorded MIDI sequence data to Arpeggio data.

Use the “Put Track to Arpeggio” Job in the Song Job mode (page 164) or the Pattern Job mode (page 186). After setting the related parameters, press the [ENTER] button to execute the Job.

The created Arpeggio types can be selected from the User bank in the Arpeggio display.

# Controller Block

This block consists of the keyboard, Pitch Bend and Modulation Wheels, Ribbon Controller, Knobs, Sliders and so on. The keyboard itself doesn't generate sounds, but instead generates/transmits note on/off, velocity and other information (MIDI messages) to the synthesizer's tone generator block when you play notes. The controllers also generate/transmit MIDI messages. The synthesizer's tone generator block produces the sound according to the MIDI messages transmitted from the keyboard and controllers.

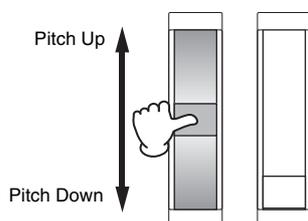
## Keyboard

The keyboard transmits the note on/off messages to the Tone Generator Block (for sounding) and Sequencer Block (for recording). The keyboard is also used for triggering Arpeggio playback. You can change the note range of the keyboard in octaves by using the OCTAVE [UP] and [DOWN] buttons, transpose the notes in the Play display (page 219) of the Utility mode, and set how the actual velocity is generated according to the strength with which you play notes in the same display.

## Pitch Bend wheel

Use the Pitch Bend wheel to bend notes up (roll the wheel away from you) or down (roll the wheel toward you) while playing the keyboard. This wheel is self-centering and will automatically return to normal pitch when released. Try out the Pitch Bend wheel while pressing a note on the keyboard.

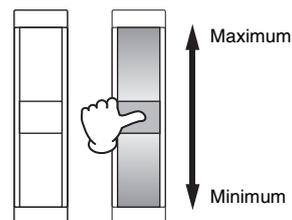
Each preset Voice has its own default Pitch Bend Range setting. The Pitch Bend Range setting for each Voice can be changed in the Play Mode display (page 55) of the Voice Edit mode. From this display you can also reverse the Pitch Bend function—so that moving the wheel up lowers the pitch, and moving it down raises the pitch. Functions other than Pitch Bend can be assigned to the Pitch Bend wheel in the Controller Set display (page 61) of the Voice Edit mode.



## Modulation wheel

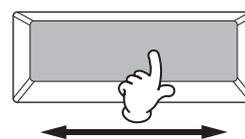
Even though the Modulation wheel is conventionally used to apply vibrato to the sound, many of the preset Voices have other functions and effects assigned to the wheel. The more you move this wheel up, the greater the effect that is applied to the sound. Try out the Modulation wheel with various preset Voices while playing the keyboard. To avoid accidentally applying effects to the current Voice,

make sure the Modulation wheel is set to minimum before you start playing. Various functions can be assigned to the Modulation wheel in the Controller Set display (page 61) of the Voice Edit mode.



## Ribbon Controller

The Ribbon Controller is touch sensitive, and is controlled by running your finger laterally across the surface. Various functions are assigned to each preset Voice. Try out the Ribbon Controller with various preset Voices while playing the keyboard. Various functions can be assigned to the Ribbon Controller in the Controller Set display (page 61) of the Voice Edit mode. You can also determine whether the Ribbon Controller value returns to the center, or stays at the point where you released your finger in the General Other display (page 57) of the Voice Common Edit mode.



## Assignable Function Buttons

According to the XA (Expanded Articulation) Control settings in the Oscillator display (page 69) of the Voice Element Edit mode, you can call up the specific Element of the current Voice by pressing each of these buttons during your keyboard performance. You can select how the on/off status of these buttons is switched by using the Assignable Function 1 Mode and Assignable Function 2 Mode parameters in the General Other display (page 57) of the Voice Common Edit mode. Furthermore, you can assign various functions (other than calling up specific Elements) to these buttons.

## Knobs and Sliders

These eight knobs let you change various aspects of the Voice's sound in real time—while you play. The eight sliders let you adjust the volume of the Voice Elements, Performance Parts and Mixing Parts.

For more information about how to use the knobs and sliders in the respective modes, see page 46 (Voice mode), page 94 (Performance mode), and page 138 (Song/Pattern mode).

## Effect Block

This block applies effects to the output of the tone generator block, and audio input block, processing and enhancing the sound. Effects let you change the sound of the created Voice as desired.

### Effect structure

#### System Effects—Reverb and Chorus

System Effects are applied to the overall sound—a Voice, an entire Performance, a Song, etc. With System Effects, the sound of each Part is sent to the effect according to the effect Send Level for each Part. The processed sound (referred to as “wet”) is sent back to the mixer, according to the Return Level, and output—after being mixed with the unprocessed “dry” sound. This arrangement lets you prepare an optimum balance of the effect sound and the original sound of the Parts.

#### Insertion Effect

Insertion Effects can be applied individually to each Part. Insertion Effects are mainly used to directly process a single Part. The depth of the effect is adjusted by setting the dry/wet balance. Since an Insertion Effect can only be applied to one particular Part, it should be used for sounds you want to drastically change or for sounds that use an effect unintended for other sounds. You can also set the balance so that only the effect sound is heard, by setting Wet to 100%. This synthesizer features eight sets of Insertion Effects (one set has A and B units). They can be applied to all Parts of the Performance, and applied to eight Parts (maximum) of the Song/Pattern. Another important Insertion Effect is the Vocoder, which can be applied only to one Part.

**NOTE** In the Voice mode, the Vocoder Effect can be applied to each of the Voices. In the Mixing (Song/Pattern) and Performance mode, the Vocoder Effect can be applied only to Part 1. The Vocoder Effect does not work even if you assign the Voice (to which the Vocoder is applied in the Voice mode) to the other parts (Part 2 or higher).

#### Master Effect

This block applies effects to the final stereo output signal of the entire sound.

#### Element EQ

The Element EQ is applied to each element of the Normal Voice and each key of the Drum Voice. You can specify which shape is used among six types, such as shelving and peaking.

#### Part EQ

This 3-band parametric EQ is applied to each part of the Performance/Song Mixing/Pattern Mixing. The high band and low band are the shelving type. The middle band is the peaking type.

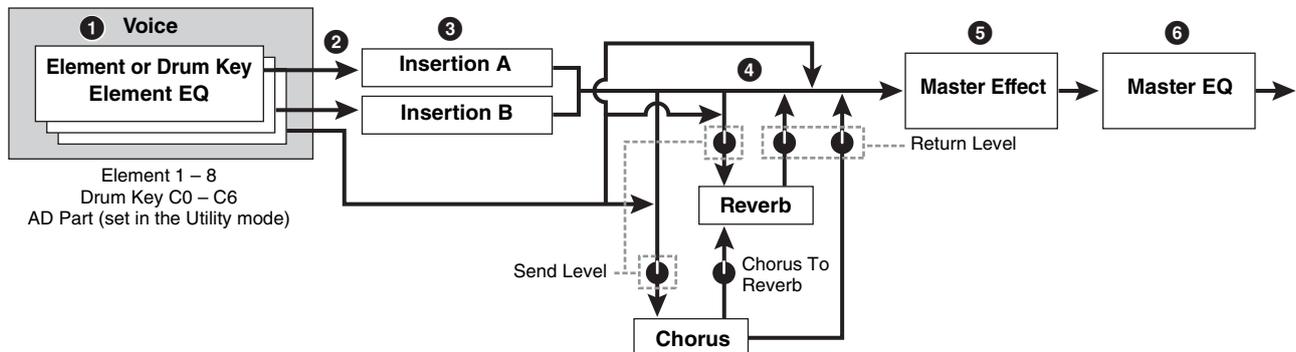
#### Master EQ

Master EQ is applied to the final (post-effect), overall sound of the instrument. In this EQ, all five bands can be set to peaking, or the lowest and highest bands can also be set to shelving.

**NOTE** The Peaking Type (an Equalizer shape), lets you attenuate/boost the signal at the specified Frequency setting. The Shelving type (another Equalizer shape), lets you attenuate/boost the signal at frequencies above or below the specified Frequency.

## Effect connection in each mode

### In the Voice mode



- 1 Sets the Element EQ parameters applied to each Element (for a Normal Voice) and each key (for a Drum Voice).**

The Element EQ parameters can be set in the EQ display (pages 83 and 90) of the Voice Edit mode.

- 2 Determines which Insertion Effect, A or B, is applied to each Element (or to each key when a Drum Voice is selected).**

The Insertion Effect can also be bypassed. This can be set in the Connect display (page 64) of the Voice Common Edit or the Oscillator display (page 69) of the Voice Element Edit (or Key Edit).

**NOTE** These two display types are linked and feature the same settings, only in different formats.

- 3 Determines the Insertion A/B connection from the following four types: parallel, A ► B, B ► A, and Vocoder.**

This block also selects the Effect Types of Insertion A and B respectively and sets the related parameters.

These can be set in the Connect display (page 64) and the Insertion A/B display (page 66) of Voice Common Edit.

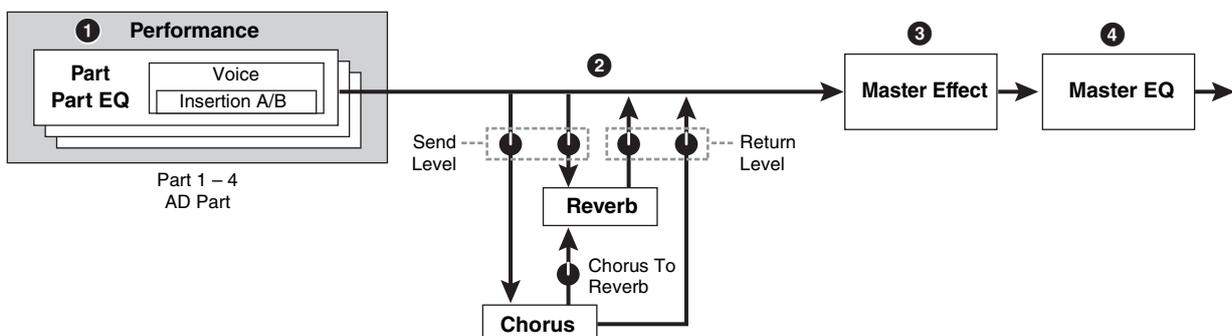
- 4 Determines the Send Level/Return Level to/from the Reverb/Chorus and the signal level sent from the Chorus to the Reverb.**

This block also selects the Effect Types of Reverb and Chorus respectively and sets the related parameters. These can be set in the Connect display (page 64) and the Reverb display/Chorus display (page 66) of Voice Common Edit.

- 5 Selects the Master Effect type and sets the Effect parameters in the Master Effect display (page 224) of the Utility mode.**

- 6 Sets the Master EQ parameters in the Master EQ display (page 224) of the Utility mode.**

### In the Performance mode



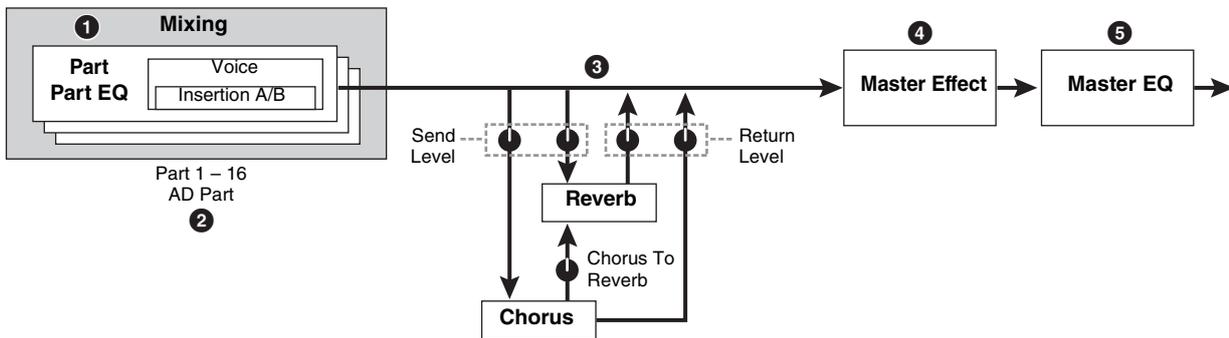
- ❶ Sets the Part EQ parameters applied to each part in the EQ display (page 103) of Performance Part Edit.
- ❷ Determines the Send Level/Return Level to/from the Reverb/Chorus and the signal level sent from the Chorus to the Reverb.

This block also selects the Effect Types of Reverb and Chorus respectively and sets the related parameters. These can be set in the Connect display (page 107) and the Reverb display/Chorus display (page 108) of Performance Common Edit.

- ❸ Selects the Master Effect type and sets the Effect parameters in the Master Effect display (page 104) of Performance Common Edit.
- ❹ Sets the Master EQ parameters in the Master EQ display (page 105) of Performance Common Edit.

**NOTE** The Effect settings of ❶ – ❸ in the Voice mode illustrated on page 23 are available also in the Performance mode.

## Mixing mode



- ❶ Sets the Part EQ parameters applied to each part in the EQ display (page 195) of Mixing Part Edit.
- ❷ Selects the eight Parts to which the Insertion Effect is applied from Parts 1 – 16 and the AD Part.  
This can be set in the Insertion Effect Switch display (page 193) of the Mixing Edit.
- ❸ Determines the Send Level/Return Level to/from the Reverb/Chorus and the signal level sent from the Chorus to the Reverb.  
This block also selects the Effect Types of Reverb and Chorus respectively and sets the related parameters. These can be set in the Connect display (page 193) and the Reverb display/Chorus display (page 193) of Mixing Common Edit.
- ❹ Selects the Master Effect type and sets the Effect parameters in the Master Effect display (page 193) of Mixing Common Edit.
- ❺ Sets the Master EQ parameters in the Master EQ display (page 193) of Mixing Common Edit.

**NOTE** The Effect settings of ❶ – ❸ in the Voice mode illustrated on page 23 are available for up to eight parts for which the Insertion Effect is turned on.

## Effect Category and Type

This section explains the Effect categories and their types. The Effect Type list described below for each category contains the columns: Rev (Reverb), Cho (Chorus), Ins (Insertion) and Mas (Master Effect). The checkmarks indicated in these columns means the Effect Type is available for each block. These Effect types (with the checkmarks indicated in each list) can be selected from the panel controls.

### Reverb

Also called “reverberation,” this refers to the sound energy remaining in a room or closed space after the original sound stops. Similar to yet different from echo, reverb is the indirect, diffuse sound of reflections from the walls and ceiling that accompany the direct sound. The characteristics of this indirect sound depends on the size of the room or space and the materials and furnishings in the room.

Effect Type	Rev	Cho	Ins	Description
REV-X HALL	✓	–	–	Reverb emulating the acoustics of a concert hall using the REV-X technology.
R3 HALL	✓	–	–	Reverb emulating the acoustics of a concert hall using the algorithm derived from the Yamaha ProR3.

Effect Type	Rev	Cho	Ins	Description
SPX HALL	✓	✓	✓	Reverb emulating the acoustics of a concert hall derived from the Yamaha SPX1000.
REV-X ROOM	✓	–	–	Reverb emulating the acoustics of a room using the REV-X technology.
R3 ROOM	✓	–	–	Reverb emulating the acoustics of a room using the algorithm derived from the Yamaha ProR3.
SPX ROOM	✓	✓	✓	Reverb emulating the acoustics of a room derived from the Yamaha SPX1000.
R3 PLATE	✓	–	–	Reverb emulating a metal plate using the algorithm derived from the Yamaha ProR3.
SPX STAGE	✓	✓	✓	Reverb appropriate for a solo instrument derived from the Yamaha SPX1000.
SPACE SIMULATOR	✓	–	–	Reverb which lets you set the space size by specifying the width, height, and depth.

## Delay

An effect (or device) that delays an audio signal for ambient or rhythmic effects.

Effect Type	Rev	Ins	Mas	Description
CROSS DELAY	✓	✓	–	The feedback of the two delayed sounds is crossed.
TEMPO CROSS DELAY	✓	✓	–	Cross delay synchronized with the tempo of Song/Pattern/Arpeggio.
TEMPO DELAY MONO	✓	✓	–	Mono delay synchronized with the tempo of Song/Pattern/Arpeggio.
TEMPO DELAY STEREO	✓	✓	–	Stereo delay synchronized with the tempo of Song/Pattern/Arpeggio.
CONTROL DELAY	–	✓	–	Delay with delay time controllable in real time.
DELAY LR	✓	✓	–	Produces two delayed sounds: L and R.
DELAY LCR	✓	✓	–	Produces three delayed sounds: L, R and C (center).
DELAY LR (Stereo)	✓	✓	✓	Produces two delayed sounds in stereo: L and R.

## Chorus

Depending on the particular chorus type and parameters, this can make a voice sound “larger,” as if several identical instruments were playing in unison, or it can give a voice greater warmth and depth.

Effect Type	Cho	Ins	Description
G CHORUS	✓	✓	A Chorus Effect that produces a richer and more complex modulation than normal chorus.
2 MODULATOR	✓	✓	A Chorus Effect consisting of the pitch modulation and the amplitude modulation.
SPX CHORUS	✓	✓	An effect which uses a 3-phase LFO to add modulation and spaciousness to the sound.

Effect Type	Cho	Ins	Description
SYMPHONIC	✓	✓	A multi-stage version of SPX CHORUS modulation.
ENSEMBLE DETUNE	✓	✓	Chorus effect without modulation, created by adding a slightly pitch-shifted sound.

## Flanger

This effect creates a swirling, metallic sound.

Effect Type	Cho	Ins	Description
VCM FLANGER	✓	✓	Flanger with VCM technology producing a vintage sound.
CLASSIC FLANGER	✓	✓	Conventional type of flanger.
TEMPO FLANGER	✓	✓	Tempo-synchronized flanger.
DYNAMIC FLANGER	–	✓	Dynamically controlled flanger.

## Phaser

Cyclically modulates the phase to add modulation to the sound.

Effect Type	Cho	Ins	Description
VCM PHASER MONO	✓	✓	Mono phaser with VCM technology producing a vintage sound.
VCM PHASER STEREO	✓	✓	Stereo phaser with VCM technology producing a vintage sound.
TEMPO PHASER	✓	✓	Tempo-synchronized phaser.
DYNAMIC PHASER	–	✓	Dynamically controlled phase shifter

## Tremolo & Rotary

The tremolo effect cyclically modulates the volume.

The Rotary Speaker effect simulates the characteristic vibrato effect of a rotary speaker.

Effect Type	Ins	Description
AUTO PAN	✓	An effect which cyclically moves the sound left/right and front/back.
TREMOLO	✓	An effect which cyclically modulates the volume.
ROTARY SPEAKER	✓	Simulation of a rotary speaker

## Distortion

This type can be used mainly for guitar, adding distortion with an edge to the sound.

Effect Type	Ins	Mas	Description
AMP SIMULATOR 1	✓	–	A simulation of a guitar amp.
AMP SIMULATOR 2	✓	–	A simulation of a guitar amp.
COMP DISTORTION	✓	–	Since a Compressor is included in the first stage, steady distortion can be produced regardless of changes in input level.
COMP DISTORTION DELAY	✓	✓	Compressor, Distortion and Delay are connected in series.

## Compressor

Compressor is an effect commonly used to limit and compress the dynamics (softness/loudness) of an audio signal. When used with gain to boost the overall level, this creates a more powerful, more consistently high-level sound. Compression can be used to increase sustain for electric guitar, smooth out the volume of a vocal, or bring a drum kit or rhythm pattern further up-front in the mix.

Effect Type	Ins	Mas	Description
VCM COMPRESSOR 376	✓	✓	Compressor with VCM technology.
CLASSIC COMPRESSOR	✓	–	Conventional type of compressor.
MULTI BAND COMP	✓	✓	3-band type compressor.

## Wah

This Effect cyclically modulates the tone brightness (cutoff frequency of a filter). Auto Wah modulates the tone via LFO, Touch Wah modulates the tone via volume (note on velocity) and Pedal Wah modulates the tone the pedal control.

Effect Type	Ins	Description
VCM AUTO WAH	✓	Modulates the tone via the LFO.
VCM TOUCH WAH	✓	Modulates the tone via the volume (note on velocity).
VCM PEDAL WAH	✓	Modulates the tone via the pedal control. For best results, assign the Pedal Control parameter of this Effect type to the Foot Controller in the Controller Set display, then use the Foot Controller to control this effect in real time.

## Lo-Fi

This Effect intentionally degrades the audio quality of the input signal via several methods such as lowering the sampling frequency.

Effect Type	Ins	Mas	Description
LO-FI	✓	✓	Degrades the audio quality of the input signal to get a lo-fi sound.
NOISY	✓	–	Adds the noise to the current sound.
DIGITAL TURNTABLE	✓	–	Simulates the noise of an analog record.

## Tech

This Effect changes the tonal characteristics radically by using a filter and modulation.

Effect Type	Ins	Mas	Description
RING MODULATOR	✓	✓	An effect that modifies the pitch by applying amplitude modulation to the frequency of the input.
DYNAMIC RING MODULATOR	✓	–	Dynamically controlled Ring Modulator
DYNAMIC FILTER	✓	✓	Dynamically controlled filter
AUTO SYNTH	✓	–	Processes the input signal into a synthesizer-type sound.

Effect Type	Ins	Mas	Description
ISOLATOR	✓	✓	Controls the level of a specified frequency band of the input signal.
SLICE	✓	✓	Slices the AEG of the Voice sound.
TECH MODULATION	✓	–	Adds a unique feeling of modulation similar to ring modulation.

## Vocoder

The Vocoder effect does not belong to any category. When you want to use this effect, set the INSERTION CONNECT parameter in the Effect Connect display (page 66) to “ins L.”

Effect Type	Ins	Description
VOCODER	✓	This effect extracts characteristics from the microphone sound and applies it to the Voice played from the keyboard. This creates a distinctive, “robot voice” effect which is generated when you play the keyboard and sing or speak into the microphone at the same time.

## Misc

This category includes the other effect types.

Effect Type	Cho	Ins	Description
VCM EQ 501	–	✓	Vintage 5-band parametric EQ with VCM technology.
PITCH CHANGE	–	✓	Changes the pitch of the input signal.
EARLY REFLECTION	✓	✓	This effect isolates only the early reflection components of the reverb.
HARMONIC ENHANCER	–	✓	Adds new harmonics to the input signal to make the sound stand out.
TALKING MODULATOR	–	✓	Adds a vowel sound to the input signal.
DAMPER RESONANCE	–	✓	Simulates the resonance produced when the damper pedal of the piano is pressed.

## VCM (Virtual Circuitry Modeling)

VCM is a technology that authentically models the elements in analog circuitry (such as resistors and capacitors). Effect types using the VCM technology produce the uniquely warm characteristics of vintage processing gear.

### VCM Compressor 376

This effect emulates the characteristics of analog compressors, used as standard effects in recording studios. It frames and thickens the sound, and is suitable for drum and bass sounds.

### VCM Equalizer 501

This effect emulates the characteristics of analog equalizers used in the 1970s, recreating a warm, high-quality flanger effect.

## VCM Flanger

These effects emulate the characteristics of analog flanger used in the 1970s, recreating a warm, high-quality flanger effect.

## VCM Phaser Mono, VCM Phaser Stereo

This effect emulates the characteristics of analog phasers used in the 1970s, recreating a warm, high-quality phaser effect.

## VCM Auto Wah, VCM Touch Wah, VCM Pedal Wah

These effects emulate the characteristics of analog Wah used in the 1970s, recreating a warm, high-quality wah-wah effect.

## REV-X

REV-X is a reverb algorithm developed by Yamaha. It provides a high-density, richly reverberant sound quality, with smooth attenuation, spread and depth that work together to enhance the original sound. The MOTIF XF features two types of REV-X effects: REV-X Hall and REV-X Room.

## Effect Parameters

Each of the Effect Types has parameters determining how the Effect is applied to the sound. A variety of sounds can be obtained from a single effect type by setting these parameters. For information about the Effect parameters, see below.

## Preset settings for Effect parameters

Preset settings for parameters of each effect type are provided as templates and can be selected in the Effect Type selection display. To get a desired effect sound, try first selecting one of the Presets close to your imagined sound, then change the parameters as necessary.

Preset settings can be selected here.



## Effect Parameters

**NOTE** Some parameters below may appear in different effect types with the same name, but actually have different functions depending on the particular effect type. For these parameters, two or three types of explanations are given.

Parameter name	Descriptions
AEG Phase	Offsets the phase of the AEG.
AM Depth	Determines the depth of the amplitude modulation.
AM Inverse R	Determines the phase of the amplitude modulation for the R channel.
AM Speed	Determines the amplitude modulation speed.
AM Wave	Selects the wave for modulating the amplitude.
AMP Type	Selects the amplifier type to be simulated.
Analog Feel	Adds the characteristics of an analog flanger to the sound.
Attack	Determines the amount of time that elapses between the playing of a key and the start of the compressor effect.
Attack Offset	Determines the amount of time that elapses between the playing of a key and the start of the wah effect.
Attack Time	Determines the attack time of the envelope follower.
Bit Assign	Determines how the Word Length is applied to the sound.
Bottom <sup>1</sup>	Determines the minimum value of the wah filter.
BPF1-10 Gain	Determines each output gain of BPFs 1 - 10 of the Vocoder effect.
Click Density	Determines the frequency at which the click sounds.
Click Level	Determines the click level.
Color <sup>2</sup>	Determines the fixed phase modulation.
Common Release	This is a parameter of "Multi Band Comp." This parameter determines the amount of time that elapses between the releasing of a note and the end of the effect.
Compress	Determines the minimum input level at which the compressor effect is applied.
Control Type	This is a parameter of "Control Delay." When set to "Normal," the delay effect is always applied to the sound. When set to "Scratch," the delay effect is not applied if both the Delay Time and Delay Time Offset are set to "0."
Damper Control	When the half-damper compatible FC3 footswitch is connected to the SUSTAIN jack, the Damper Control parameter is controlled by the FC3 over a range of 0 - 127, allowing for partial damper effects, such as is available on an actual grand piano.
Decay	Controls how the reverb sound decays.
Delay Level C	Determines the level of the delayed sound for the center channel.
Delay Mix	Determines the level of the delayed mixed sound when multiple effects are applied.
Delay Offset	Determines the offset value of the delay modulation.
Delay Time	Determines the delay of the sound in note value or absolute time.
Delay Time C, L, R	Determines the delay time for each channel: center, left and right.
Delay Time L>R	Determines the amount of time between the moment the sound is input from the L channel and the moment the sound is output to the R channel.
Delay Time Ofst R	Determines the delay time for the R channel as offset.
Delay Time R>L	Determines the amount of time between the moment the sound is input from the R channel and the moment the sound is output to the L channel.
Delay Transition Rate	Determines the speed (rate) at which the delay time is changed from the current value to the specified new value.
Density	Determines the density of the reverberations or reflections.
Depth	When "Space Simulator" is selected, this parameter determines the depth of the simulated room. When "VCM Flanger" is selected, this parameter determines the amplitude of the LFO wave which controls the cyclic change of the delay modulation. When "Phaser Type" is selected, this parameter determines the amplitude of the LFO wave which controls the cyclic change of the phase modulation.
Detune	Determines the amount of pitch to be detuned.
Device	Selects the device for changing how to distort the sound.
Diffusion	Determines the spread of the selected effect.
Direction	Determines the direction of the modulation controlled by the envelope follower.
Divide Freq High	Determines the high frequency for dividing the entire sound into three bands.
Divide Freq Low	Determines the low frequency for dividing the entire sound into three bands.
Divide Min Level	Determines the minimum level of the portions extracted via the slice effect.
Divide Type	Determines how the sound (wave) is sliced by the note length.
Drive	When one of the distortions, noisy and slice effects is selected, this parameter determines the extent to which the sound is distorted. When one of the misc effects is selected, this parameter determines the extent to which the enhancer or talking modulator is applied.

Basic Structure

Basic Operation

Connections

Basic Section

Parameter name	Descriptions
Drive Horn	Determines the depth of the modulation generated via the rotation of the horn.
Drive Rotor	Determines the depth of the modulation generated via the rotation of the rotor.
Dry Level	Determines the level of the dry sound (to which the effect is not applied).
Dry LPF Cutoff Frequency	Determines the cutoff frequency of the low pass filter applied to the dry sound.
Dry Mix Level	Determines the level of the dry sound (to which the effect is not applied).
Dry Send to Noise	Determines the level of the dry signal sent to the noise effect.
Dry/Wet Balance	Determines the balance of the dry sound and effect sound.
Dyna Level Offset	Determines the offset value added to the output from the envelope follower.
Dyna Threshold Level	Determines the minimum level at which the envelope follower starts.
Edge	Sets the curve that determines how the sound is distorted.
Emphasis	Determines the change of the characteristics in high frequencies.
EQ Frequency	Determines the center frequency for each band of the EQ.
EQ Gain	Determines the level gain of the EQ center frequency for each band.
EQ High Frequency	Determines the center frequency of the high EQ band that is attenuated/boosted.
EQ High Gain	Determines the amount of boost or attenuation applied to the high EQ band.
EQ Low Frequency	Determines the center frequency of the low EQ band that is attenuated/boosted.
EQ Low Gain	Determines the amount of boost or attenuation applied to the low EQ band.
EQ Mid Frequency	Determines the center frequency of the middle EQ band that is attenuated/boosted.
EQ Mid Gain	Determines the amount of boost or attenuation applied to the middle EQ band.
EQ Mid Width	Determines the width of the middle EQ band.
EQ Width	Determines the width of the EQ band.
ER/Rev Balance	Determines the level balance of the early reflection and reverb sound.
F/R Depth	This parameter of "Auto Pan" (available when PAN Direction is set to "L turn" and "R turn") determines the depth of the F/R (front/rear) pan.
FB Hi Damp Ofst R	Determines the amount of decay in high frequencies for the R channel as offset.
FB Level Ofst R	Determines the feedback level for the R channel as offset.
Feedback	Determines the level of the sound signal output from the effect block and returned to its own input.
Feedback High Damp	Determines how the high frequencies of the feedback sound decay.
Feedback Level	When one of the reverb and early reflection effects is selected, this parameter determines the feedback level of the initial delay. When one of the delay, chorus, flanger, comp distortion delay, and TEC effects is selected, this parameter determines the feedback level output from the delay and returned to the input. When "Tempo Phaser" or "Dynamic Phaser" is selected, this parameter determines the feedback level output from the phaser and returned to the input.
Feedback Level 1, 2	Determines the feedback level of the delayed sound in each of the 1st and 2nd series.
Feedback Time	Determines the delay time of the feedback.
Feedback Time 1, 2, L, R	Determines the time of the feedback delay 1, 2, L and R.
Filter Type	When "Lo-Fi" is selected, this parameter selects the tonal characteristic type. When "Dynamic Filter" is selected, this parameter determines the filter type.
Fine 1, 2	Determines the pitch finely for each of the 1st series and 2nd series.
Formant Offset	This parameter of the Vocoder adds the offset value to the cutoff frequency of BPF for the Inst input.
Formant Shift	This parameter of the Vocoder shifts the cutoff frequency of the BPF for Inst input.
Gate Switch	When set to "off," the output from the HPF and the Noise Generator is passed through the gate. When set to "on," the output from the HPF and the Noise Generator passes through the gate only if the audio signal is input to the Inst.
Gate Time	Determines the gate time of the sliced portion.
Height	Determines the height of the simulated room.
Hi Resonance	Adjusts the resonance of the high frequencies.
High Attack	Determines the amount of time from the moment a note is pressed to the moment the compressor is applied to the high frequencies.
High Gain	Determines the output gain for the high frequencies.
High Level	Determines the level of the high frequencies.
High Mute	Switches the mute status of the high frequencies.
High Ratio	When "REV-X Hall" or "REV-X Room" is selected, this parameter determines the ratio of the high frequencies. When "Multi Band Comp" is selected, this parameter determines the ratio of the compressor for the high frequencies.

Parameter name	Descriptions
High Threshold	Determines the minimum input level at which the effect is applied to the high frequencies.
Horn Speed Fast	Determines the speed of the horn when the slow/fast switch is set to "fast."
Horn Speed SLow	Determines the speed of the horn when the slow/fast switch is set to "slow."
HPF Freq	Determines the Cutoff frequency for the High Pass Filter applied to the microphone sound.
HPF Output Level	Determines how much the output from high pass filter is mixed with the output from the Vocoder.
Initial Delay	Determines the amount of time that elapses between the direct, original sound and the initial reflections.
Initial Delay 1, 2	Determines the delay time until the initial reflection for each of the 1st series and 2nd series.
Initial Delay Lch, Rch	Determines the amount of time that elapses between the direct, original sound and the initial reflections (echoes) that follow it for each of R and L channels.
Input Level	Determines the input level of the signal to which the compressor is applied.
Input Mode	Selects mono or stereo configuration for the input sound.
Input Select	Selects an input channel.
Inst Input Level	Determines the level of the instrument sound to which the Vocoder is applied.
L/R Depth	Determines the depth of the L/R pan effect.
L/R Diffusion	Determines the spread of the sound.
Lag	Determines the lagging time additionally applied to the delayed sound specified via a note length.
LFO Depth	When one of "SPX Chorus," "Symphonic," "Classic Flanger," and "Ring Modulator" is selected, this parameter determines the depth of the modulation. When "Tempo Phase" is selected, this parameter determines the frequency of the phase modulation.
LFO Phase difference	Determines the L/R phase difference of the modulated wave.
LFO Phase Reset	Determines how to reset the initial phase of the LFO.
LFO Speed	When any of the chorus effects, flanger effects, tremolo and ring modulator is selected, this parameter determines the frequency of the modulation. When "Tempo Phaser" or "Tempo Franger" is selected, this parameter determines the modulation speed via a note type. When "Auto Pan" is selected, this parameter determines the frequency of the Auto Pan.
LFO Wave	When any of the flanger effects and "Ring Modulator," this parameter selects the wave for modulation. When "Auto Pan" is selected, this parameter determines the panning curve. When "VCM Auto Wah" is selected, this parameter selects the wave, sine or square.
Liveness	Determines the decay characteristic of Early Reflection.
Low Attack	Determines the amount of time from the moment a note is pressed to the moment the compressor is applied to the low frequencies.
Low Gain	Determines the output gain for the low frequencies.
Low Level	Determines the output level for the low frequencies.
Low Mute	Determines whether the low frequency band is off or on.
Low Ratio	When "REV-X Hall" or "REV-X Room" is selected, this parameter determines the ratio of the low frequencies. When "Multi Band Comp" is selected, this parameter determines the ratio of the compressor for the low frequencies.
Low Threshold	Determines the minimum input level at which the effect is applied to the low frequencies.
LPF Resonance	Determines the resonance of the low pass filter for the input sound.
Manual	When "VCM Flanger" is selected, this parameter determines the offset value of the delay modulation.
Manual	When "VCM Phaser mono" or "VCM Phaser stereo" is selected, this parameter determines the offset value of the phase modulation.
Meter	Changes the meter.
Mic Gate Threshold	Determines the threshold level of the noise gate for the microphone sound.
Mic Level	Determines the input level of the microphone sound.
Mic L-R Angle	Determines the L/R angle of the microphone.
Mid Attack	Determines the amount of time from the moment a note is pressed to the moment the compressor is applied to the mid frequencies.
Mid Gain	Determines the output gain for the mid frequencies.
Mid Level	Determines the output level for the mid frequencies.
Mid Mute	Switches the mute status of the mid frequencies.
Mid Ratio	Determines the ratio of the compressor for the mid frequencies.
Mid Threshold	Determines the minimum input level at which the effect is applied for the mid frequencies.
Mix	Determines the volume of the effect sound.
Mix Level	Determines the level of the effect sound mixed to the dry sound.
Mod Depth	Determines the depth of the modulation.
Mod Depth Ofst R	Determines the depth of the modulation for R channel as offset.

Basic Structure  
Basic Operation  
Connections

Parameter name	Descriptions
Mod Feedback	Determines the feedback level to the modulation.
Mod Gain	Determines the gain of the modulation.
Mod LPF Cutoff Frequency	Determines the cutoff frequency of the low pass filter applied to the modulated sound.
Mod LPF Resonance	Determines the resonance of the low pass filter for the modulated sound.
Mod Mix Balance	When "Noisy" is selected, this parameter determines the mix balance of the modulated element. When "Tech Modulation" is selected, this parameter determines the volume of the modulated sound.
Mod Speed	Determines the modulation speed.
Mod Wave Type	Selects the wave type for modulation.
Mode	Determines the phaser type, or more specifically, the factor for forming the phaser effect.
Modulation Phase	Determines the L/R phase difference of the modulated wave.
Move Speed	Determines how long it takes to move the sound from the current status to the sound specified via the Vowel parameter.
Noise Input Level	Determines the noise level which is to be input.
Noise Level	Determines the noise level.
Noise LPF Cutoff Frequency	Determines the cutoff frequency of the low pass filter applied to the noise.
Noise LPF Q	Determines the resonance of the low pass filter applied to the noise.
Noise Mod Depth	Determines the depth of the noise modulation.
Noise Mod Speed	Determines the speed of the noise modulation.
Noise Tone	Determines the characteristics of the noise.
On/Off Switch	Turns the isolator on or off.
OSC Frequency Coarse	Determines the frequency at which the sine wave modulates the amplitude of the input wave.
OSC Frequency Fine	Determines the frequency finely at which the sine wave modulates the amplitude of the input wave.
Output	Determines the level of the signal output from the effect block.
Output Gain	Determines the gain of the signal output from the effect block.
Output Level	Determines the level of the signal output from the effect block.
Output Level 1, 2	Determines the level of the signal output from the 1st block and 2nd block respectively.
Over Drive	Determines the degree and character of the distortion effect.
Pan 1, 2	Determines the pan for each of the 1st series and 2nd series.
Pan AEG Min Level	This parameter of the Slice effect determines the minimum level of the AEG applied to the panned sound.
Pan AEG Type	This parameter of the Slice effect determines the type of the AEG applied to the panned sound.
Pan Depth	Determines the depth of the pan effect.
Pan Direction	Determines the direction toward which the stereo pan position of the sound moves.
Pan Type	Determines the pan type.
Pedal Control	When "VCM Pedal Wah" is selected, this parameter determines the cutoff frequency of the wah filter. For best results, assign the this parameter to the Foot Controller in the Controller Set display, then use the Foot Controller to control this parameter.
Pedal Response	Determines how the sound responds to the change of the damper control.
Phase Shift Offset	Determines the offset value of the phase modulation.
Pitch 1, 2	Determines the pitch in semitones for each of the 1st series and 2nd series.
PM Depth	Determines the depth of the pitch modulation.
Pre Mod HPF Cutoff Frequency	Determines the Cutoff frequency of the High Pass Filter before the modulation.
Pre-LPF Cutoff Frequency	Determines the Cutoff frequency of the Low Pass Filter before the modulation.
Pre-LPF Resonance	Determines the Resonance of the Low Pass Filter for the input sound.
Presence	This parameter of the guitar amp effect controls high frequencies.
Ratio	Determines the ratio of the compressor.
Release	Determines the amount of time that elapses between the releasing of a key and the end of the compressor effect.
Release Curve	Determines the release curve of the envelope follower.
Release Time	Determines the release time of the envelope follower.
Resonance	Determines the resonance of the filter.
Resonance Offset	Determines the resonance as offset.
Reverb Delay	Determines the delay time from the early reflections until the reverberations.
Reverb Time	Determines the reverb time.
Room Size	Determines the size of the room in which the instrument sounds.
Rotor Speed Fast	Determines the speed of the rotor when the slow/fast switch is set to "fast."
Rotor Speed Slow	Determines the speed of the rotor when the slow/fast switch is set to "slow."
Rotor/Horn Balance	Determines the volume balance of the horn and rotor.
Sampling Freq. Control	Controls the sampling frequency.

Parameter name	Descriptions
Sensitivity	When one of "Dynamic Flanger," "Dynamic Phaser," and the TEC effects is selected, this parameter determines the sensitivity of the modulation applied to the input change. When one of the VCM Touch Wah effects is selected, this parameter determines the sensitivity of the wah filter's change applied to the input change.
Slow-Fast Time of Horn	Determines how long it takes for the rotation speed of the horn to change from the current speed (slow or fast) to the other one (fast or slow) when the rotation speed is switched.
Slow-Fast Time of Rotor	Determines how long it takes for the rotation speed of the rotor to change from the current speed (slow or fast) to the other one (fast or slow) when the rotation speed is switched.
Space Type	Selects the type of space simulation.
Speaker Type	Selects the type of speaker simulation.
Speed	When "VCM Flanger" is selected, this parameter determines the frequency of the LFO wave which controls the cyclic change of the delay modulation. When any of the phaser types is selected, this parameter determines the frequency of the LFO wave which controls the cyclic change of the phase modulation. When "VCM Auto Wah" is selected, this parameter determines the speed of the LFO.
Speed Control	Switches the rotary speed.
Spread	Determines the spread of the sound.
Stage	Determines the step number of the phase shifter.
Threshold	Determines the minimum input level at which the effect is applied.
Top <sup>3</sup>	Determines the maximum value of the wah filter.
Type	When "VCM Flanger" is selected, this parameter determines the flanger type. When any of the wah effects is selected, this parameter determines the type of the Auto Wah. When "Early Reflection" is selected, this parameter determines the type of the reflection sound.
Vocoder Attack	Determines the attack time of the Vocoder sound.
Vocoder Release	Determines the release time of the Vocoder sound.
Vowel	Selects a vowel type.
Wall Vary	Determines the wall status of the simulated room. Higher settings produces more diffuse reflections.
Width	Determines the width of the simulated room.
Word Length	Determines the degree of sound roughness.

- \*1 The Bottom parameter is available only when the value is less than that of the Top parameter.
- \*2 The Color parameter may not be effective depending on the values of the Mode and Stage parameters.
- \*3 The Top parameter is available only when the value is more than that of the Bottom parameter.

# About MIDI

MIDI (Musical Instrument Digital Interface) is a standard which allows electronic musical instruments to communicate with each other, by sending and receiving compatible Note, Control Change, Program Change and various other types of MIDI data, or messages.

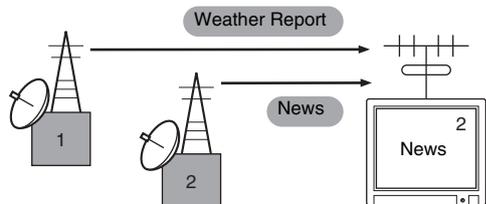
This synthesizer can control other MIDI devices by transmitting note related data and various types of controller data. It can also be controlled by incoming MIDI messages which automatically determine the tone generator mode, select MIDI channels, voices and effects, change parameter values, and of course play the voices specified for the various Parts.

## MIDI channels

MIDI performance data is assigned to one of sixteen MIDI channels. Using these channels, 1 – 16, the performance data for sixteen different instrument parts can be simultaneously sent over one MIDI cable.

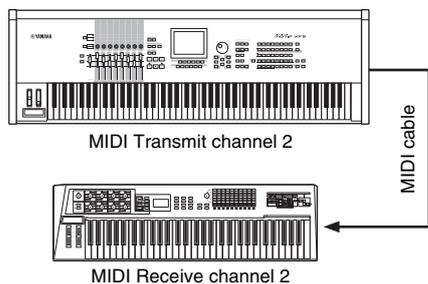
Think of the MIDI channels as TV channels. Each TV station transmits its broadcasts over a specific channel.

Your home TV set receives many different programs simultaneously from several TV stations and you select the appropriate channel to watch the desired program.



MIDI operates on the same basic principle. The transmitting instrument sends MIDI data on a specific MIDI channel (MIDI Transmit Channel) via a single MIDI cable to the receiving instrument. If the receiving instrument's MIDI channel (MIDI Receive Channel) matches the Transmit Channel, the receiving instrument will sound according to the data sent by the transmitting instrument.

For information on how to set the MIDI transmit channel and the MIDI receive channel, see page 228.



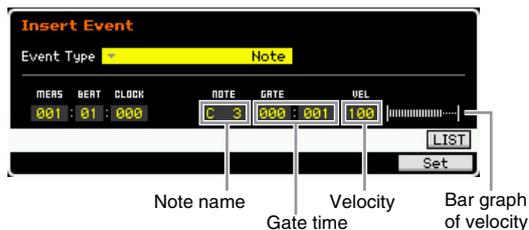
## MIDI messages transmitted/recognized by this synthesizer

The messages transmitted/received by the MOTIF XF are shown in the MIDI Data Format and MIDI Implementation Chart in the separate Data List. The MOTIF XF tone generator block (indicated "synth. part" in the Data List) and sequencer block (indicated "seq. part" in the Data List) handle different MIDI messages. The MIDI messages which the sequencer block can receive can be recorded to tracks of a Song/Pattern. On the other hand, the MIDI messages which the tone generator can receive can affect the MOTIF XF sound.

## MIDI events handled by the MOTIF XF

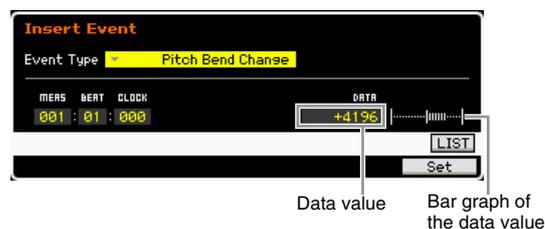
This section covers MIDI events, the data format by which the MIDI messages generated by your keyboard performance are recorded to a track of a Song/Pattern. These events described below can be edited or inserted in the displays of the Song Edit/Pattern Edit modes.

### Note



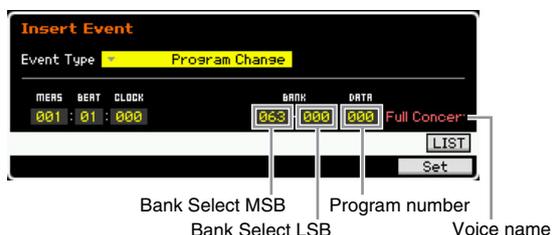
These are the events that define notes, making up the largest portion of all performance data. The note name (C – 2 – G8) defines the pitch. The gate time specifies the length of the note in beats and clocks. Velocity (1 – 127) is "how hard" the note is played. The bar graph to the right is a graphic representation of the value.

### Pitch Bend



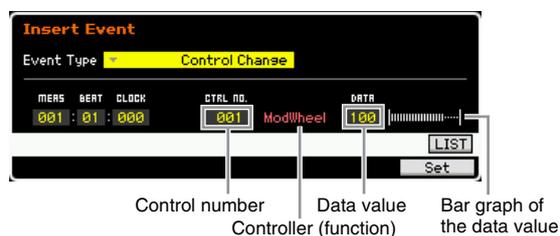
Pitch bend events are generated by pitch bend wheel operation and define continuous changes in pitch. The value (-8192 – +0000 – +8191) is a numerical representation of pitch bend wheel position. The bar graph to the right is a graphic representation of the value.

## Program Change (PC)



Program change events select Voices. The Bank Select MSB and LSB parameters are actually included in the Control Change category, below, but since in the MOTIF XF these three events are used to select Voices, they are grouped and described here. Bank Select MSB and LSB select the Voice Bank. The program number selects a Voice from the Voice category and bank specified by the MSB and LSB. For a list of the Voices, see the separate Data List. When you specify a program change as a number in the range of 0 – 127, specify a number that is one less than the program number listed in the Voice List. For example, to specify program number 128, you would actually enter program change 127.

## Control Change (CC)



Control Change events control Voice and effect parameters. Control Change events are generated when a controller such as a modulation wheel or foot controller is operated.

The Control number (000 – 127) specifies the controller (function), such as volume or pan. The value (000 – 127) specifies the “position” of the controller assigned to the selected control number. The bar graph to the right is a graphic representation of the data value.

Some of the more important control numbers and controllers are listed below.

**NOTE** When “---” is shown at the column of the Controller (Function), the Control number can be handled by the sequencer block and cannot be handled by the tone generator block.

### Modulation Wheel (Control Number 001)

The MIDI data produced when a modulation wheel is operated. No modulation is applied when the value is “0,” and “127” produces maximum modulation.

### Portamento Time (Control Number 005)

This MIDI message controls the portamento effect. No portamento is produced when the value is “0,” and “127”

produces maximum portamento time. Portamento is only produced when Portamento (Control Number 065) is ON.

### Data Entry MSB (Control Number 006)

### Data Entry LSB (Control Number 038)

These parameters specify the value of RPN MSB, RPN LSB (page 32), NRPN MSB, and NRPN LSB events. The value is represented by two control change data numbers—the MSB and the LSB.

### Volume (Control Number 007)

Sets the volume for each individual Part. No sound is produced when the value is “0,” and “127” produces maximum volume.

### Pan (Control Number 010)

Sets the pan position for each individual Part. The sound is panned fully left when the value is “0” and fully right when the value is “127.” The displayed values are -64 – +63.

### Expression (Control Number 011)

Sets the expression for each individual Part. No sound is produced when the value is “0,” and “127” produces maximum volume. This parameter produces volume variations during playback.

### Sustain (Hold 1) (Control Number 064)

This MIDI message represents sustain pedal ON/OFF operations. Notes playing when the pedal is pressed will be sustained. When the value is “0” – “63” sustain is OFF, and when the data is “64” – “127” sustain is ON.

### Portamento (Control Number 065)

This MIDI message turns portamento ON or OFF. When the value is “0” – “63” portamento is OFF, and when the data is “64” – “127” portamento is ON. The length (degree) of the portamento effect is controlled by Portamento Time (Control Number 005).

### Sostenuto Pedal (Control Number 066)

This MIDI message represents sostenuto pedal ON/OFF operations. When the value is “0” – “63” sostenuto is OFF, and when the data is “64” – “127” sostenuto is ON.

### Harmonic Content (Control Change 071)

Adjusts the resonance of the filter assigned to a Voice. The resonance is adjusted by using the data range of 0 – 127 as an offset value with a display range of -64 – +63 which is added to the Voice data.

### Release Time (Control Change 072)

Adjusts the release time of the Voice AEG. The release time is adjusted by using the data range of 0 – 127 as an offset value with a display range of -64 – +63 which is added to the Voice data.

### Attack Time (Control Change 073)

Adjusts the attack time of the Voice AEG. The attack time is adjusted by using the data range of 0 – 127 as an offset value with a display range of -64 – +63 which is added to the Voice data.

### Brightness (Control Change 074)

Adjusts the cutoff frequency of the filter assigned to a Voice. The cutoff is adjusted by using the data range of 0 – 127 as an offset value with a display range of -64 – +63 which is added to the Voice data.

**Decay Time (Control Change 075)**

Adjusts the decay time of the Voice AEG. The decay time is adjusted by using the data range of 0 – 127 as an offset value with a display range of -64 – +63 which is added to the Voice data.

**Effect Send Level 1 (Reverb Effect) (Control Number 091)**

Specifies the reverb effect send level.

**Effect Send Level 3 (Chorus Effect) (Control Number 093)**

Specifies the delay/chorus effect send level.

**Effect Send Level 4 (Variation Effect) (Control Number 094)**

Specifies the variation effect send level.

**NOTE** This MIDI event cannot be handled by the tone generator block, although it can be recorded to a Song/Pattern track.

**Data Increment (Control Number 096)**

**Data Decrement (Control Number 097)**

These MIDI messages increment or decrement by one the value of pitch bend sensitivity, fine tune, or coarse tune settings made using RPN (page 33).

**NRPN MSB (Non-Registered Parameter Number MSB) (Control Number 099)**

**NRPN LSB (Non-Registered Parameter Number LSB) (Control Number 098)**

Used primarily as offset values for vibrato, filter, EG and other settings. Data Entry is used to set the parameter value after specifying the parameter using the NRPN MSB and LSB. Once an NRPN is specified, the following data entry message received on the same channel is processed as the value of that NRPN. Prevent operational errors by transmitting an RPN Null message (7FH, 7FH) after using these messages to perform a control operation. Refer to "NRPN" for information about the parameter (page 33).

**NOTE** This MIDI event cannot be handled by the tone generator block, although it can be recorded to a Song/Pattern track.

**RPN MSB (Registered Parameter Number MSB) (Control Number 101)**

**RPN LSB (Registered Parameter Number LSB) (Control Number 100)**

Used primarily as offset values for pitch bend sensitivity, tuning, and other part settings. Data Entry (page 31) is used to set the parameter value after specifying the parameter using the RPN MSB and RPN LSB. Once an RPN is specified, the following data entry message received on the same channel is processed as the value of that RPN. Prevent operational errors by transmitting a Null message (7FH, 7FH) after using these messages to perform a control operation. Refer to "RPN" for information about the parameter.

**All Sound Off (Control Number 120)**

Turns all currently sounding notes off for all Parts.

**Reset All Controllers (Control Number 121)**

Resets all controllers to their initial values. The following parameters are affected: Pitch Bend, Channel Pressure, Polyphonic Key Pressure, Modulation, Expression, Hold 1, Portamento, Sostenuto, Soft Pedal, Portamento Control, RPN\*, NRPN\* (\*The RPN and NRPN are specified as having no number, and no internal data is changed). The following data is not affected: Program Change, Bank Select MSB and LSB, Volume, Pan, Dry Send Level, Effect Send Level 1, 3, and 4, Pitch Sensitivity, Fine Tuning, Coarse Tuning.

**Omni Mode Off (Control Number 124)**

Performs the same operation as when an All Notes Off message is received. The receive channel is set to 1.

**Omni Mode On (Control Number 125)**

Performs the same operation as when an All Notes Off message is received. Only the receive channel is set to Omni On.

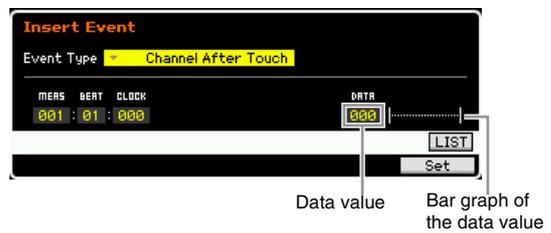
**Mono (Control Number 126)**

Performs the same operation as when an All Sound Off message is received. If the 3rd byte parameter (the parameter that determines the mono number) is 0 – 16, the Parts corresponding to those channels are set to mono.

**Poly (Control Number 127)**

Performs the same operation as when an All Sound Off message is received, and the Parts corresponding to those channels are set to poly.

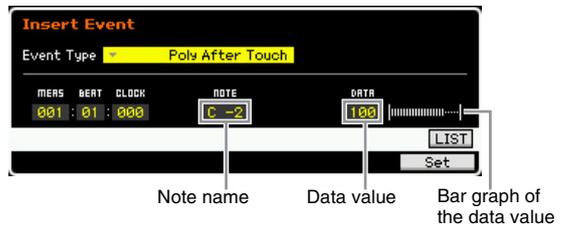
**Channel Aftertouch (CAT)**



This event is generated when pressure is applied to a key after the note is played.

The data (000 – 127) represents the amount of pressure applied to the key. The bar graph to the right is a graphic representation of the value.

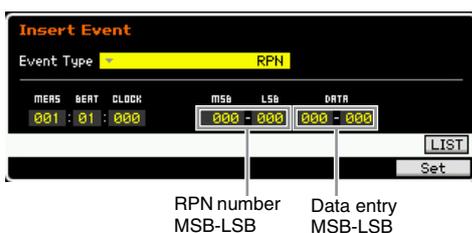
**Polyphonic Aftertouch (PAT)**



This event is generated when pressure is applied to a key after the note is played. Unlike the Channel Aftertouch event, however, individual data is provided for each key. Note Name (C -2 – G8) specifies the key. The data (000 – 127) represents the amount of pressure applied to the key. The bar graph to the right is a graphic representation of the value.

**NOTE** The Polyphonic Aftertouch cannot be handled by the tone generator block although this event can be recorded to a Song/Pattern track.

### Registered Parameter Number (RPN)



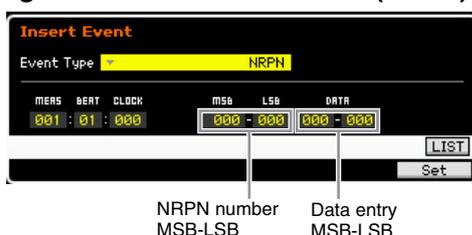
Changes parameter values for each tone generator part. Normally three types of control change data are sent: RPN

MSB (101), RPN LSB (100), and Data Entry MSB (6). In the MOTIF XF, Data Entry LSB (38) is added to this and the resulting group of control change events is handled as one. Once an RPN is specified, the following data entry message received on the same channel is processed as the value of that RPN. Prevent operational errors by transmitting a Null message (7FH, 7FH) after using these messages to perform a control operation. The MOTIF XF tone generator block allows control of the 4 following parameters:

#### RPN Parameter List

RPN Number		Parameter Name	Data Entry (Range)		Initial Value	Function
MSB	LSB		MSB	LSB		
000	000	Pitch Bend Sensitivity	000 – 024	—	024	Specifies the amount of pitch bend produced in response to pitch bend data in semitone increments.
000	001	Fine Tune	-64 – +63	—	+00	Adjusts the tuning in cent increments.
000	002	Coarse Tune	-24 – +24	—	+00	Adjusts the tuning in semitone increments.
127	127	Null	—	—	—	voids the RPN and NRPN settings so no tone generator settings are changed when subsequent Data Entry messages are received.

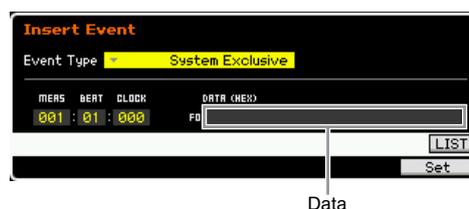
### Non-Registered Parameter Number (NRPN)



Changes parameter values for each tone generator Part. There is no compatibility between different manufacturers. Numerous parameters specific to each tone generator can be controlled to produce tonal changes. Normally three types of control change data are sent: NRPN MSB (99), NRPN LSB (98), and Data Entry MSB (6). In the MOTIF XF, this group of control change events is handled as one. Once an NRPN is specified, the following data entry message received on the same channel is processed as the value of that NRPN. Prevent operational errors by transmitting an RPN Null message (7FH, 7FH) after using these messages to perform a control operation. For filter cutoff frequency, resonance, and other independent control change parameters, it is normal to use the independent control change parameters rather than the NRPN.

**NOTE** This MIDI event cannot be handled by the tone generator block, although it can be recorded to a Song/Pattern track.

### System Exclusive



Changes internal tone generator settings such as Voice and effect settings, remote switch control, tone generator mode switching, and others via MIDI. The 2nd byte is a manufacturer ID number, and there is no data compatibility between manufacturers. This type of event is used to control MOTIF XF-specific functions. The cursor can be used to scroll through the data if the data size is greater than 17 bytes.

# Internal Memory

As you use the MOTIF XF, you will create many different kinds of data, including Voices, Performances, Songs, and Patterns. This section describes how to maintain the various types of data and use the memory devices/media for storing them.

## Internal Memory

Below are explanations of the basic terms related to memory. Refer to the diagram on the next page for details about data handled via the following memory types.

### Flash ROM

ROM (Read Only Memory) is memory designed specifically for reading out of data, and as such data cannot be written to it. Unlike conventional ROM, Flash ROM can be overwritten—allowing you to store your own original data. The contents of Flash ROM are maintained even when the power is turned off.

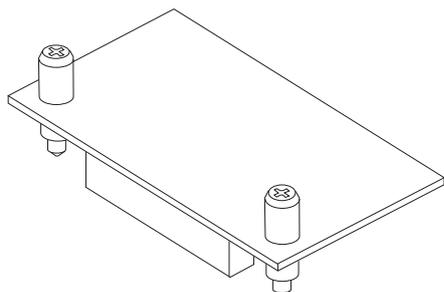
### DRAM / SDRAM

RAM (Random Access Memory) is memory designed specifically for data writing and data reading operations. The MOTIF XF is equipped with two types of RAM: DRAM (Dynamic RAM) and SDRAM (Synchronous Dynamic RAM). The created data stored on DRAM and SDRAM is lost when the power is turned off. Because of this, you should always store any data residing in DRAM to the USB storage device or the computer connected to the network before turning off the power.

Regarding the Samples (obtained via the Sampling feature) on SDRAM, you should copy them to the optional Flash Memory Expansion Module (FL512M/FL1024M) as Waveforms, allowing you to recall them quickly.

### Flash Memory Expansion Module (optional FL512M/FL1024M)

The sample obtained via the Sampling function can be stored as a Waveform by installing the optional Flash Memory Expansion Module FL512M/FL1024M to the MOTIF XF. The sample on the Flash Memory Expansion Module will be maintained even if the power is turned off and can immediately be called up as a Waveform. This is convenient when using a User Voice containing a Waveform to which the Sample created via the Sampling function has been assigned.



**NOTE** The optional FL512M/FL1024M can handle only the Waveform data.

### Edit Buffer and User Memory

The edit buffer is the memory location for edited data of these types: Voice, Performance, Master, Song Mixing, and Pattern Mixing. Data edited in this location will be stored to the User Memory.

If you select another Voice, Performance, Master, Song, or Pattern, the entire contents of the edit buffer will be rewritten with the newly selected Voice/Performance/Master/Song Mixing/Pattern Mixing data. Make sure to store any important data before selecting another Voice, etc.

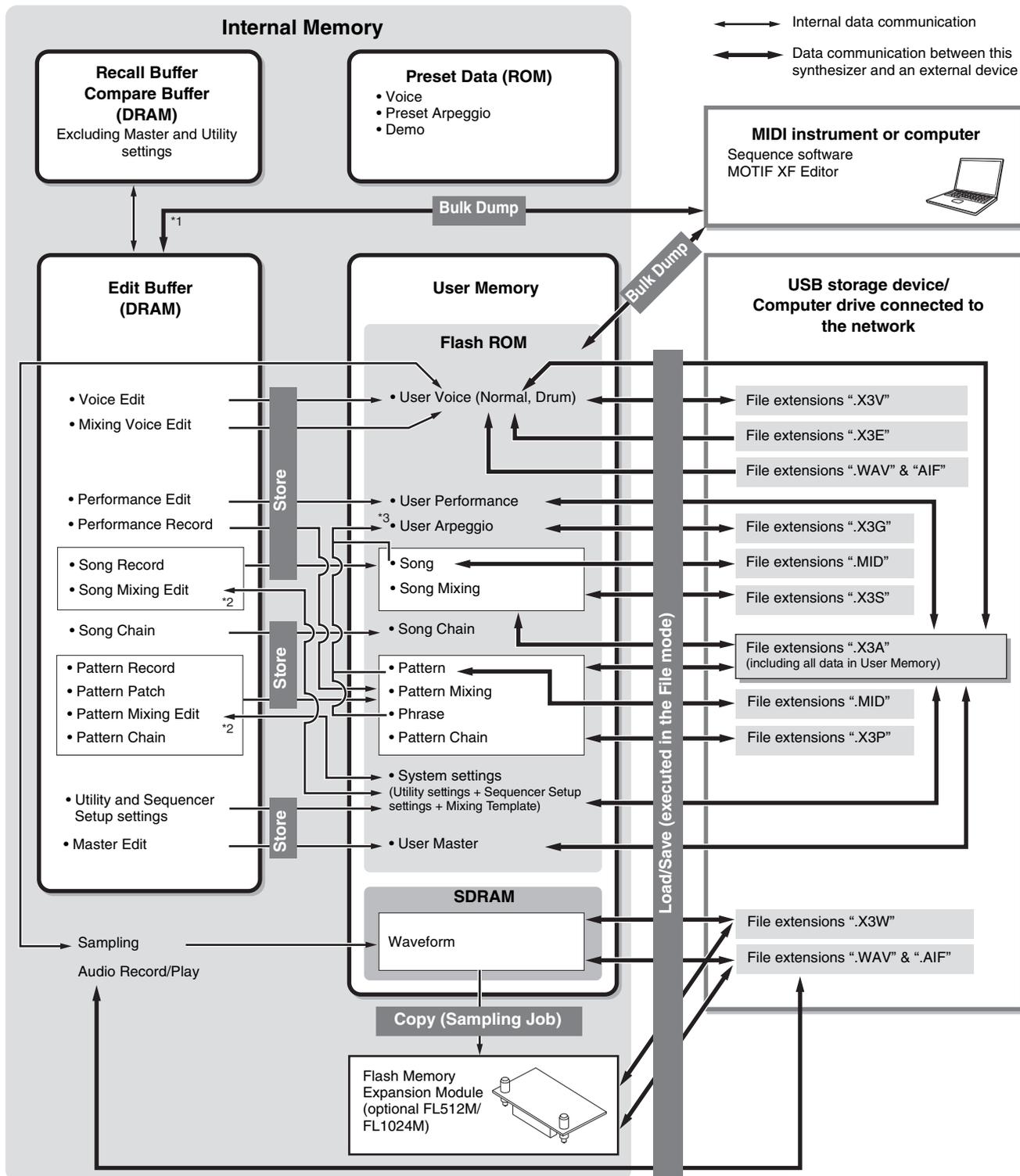
### Edit Buffer and Recall Buffer

If you've selected another Voice/Performance/Song/Pattern without storing the one you were editing, you can recall your original edits, since the edit buffer's contents are stored in backup memory.

**NOTE** Keep in mind that the recall buffer is not available in the Master Edit mode.

# Memory Structure

This diagram details the relationship among the functions of the MOTIF XF and the internal memory and external devices such as USB storage device and computer.

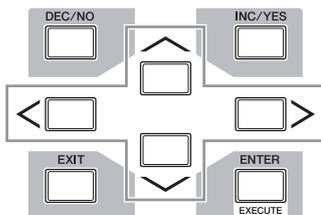


\*1 Only the currently edited data can be transmitted as Bulk data. Note that the Mixing Voice cannot be transmitted as Bulk data.  
 \*2 The Mixing settings can be stored/recalled as a template in the Song Mixing Job mode/Pattern Mixing Job mode.  
 \*3 You can convert the MIDI sequence data recorded in the Song Record mode/Pattern Record mode to Arpeggio data. This can be executed with the following operations: [SONG] → [JOB] → [F5] Track → 07: Put Track to Arpeggio or [PATTERN] → [JOB] → [F5] Track → 07: Put Track to Arpeggio.

# Basic Operation

## Moving the Cursor

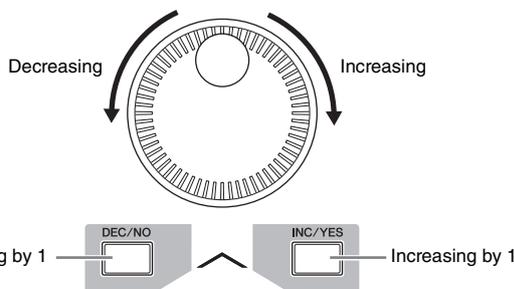
Use these four buttons to navigate the display, moving the cursor around the various selectable items and parameters in the screen. When selected, the relevant item is highlighted (the cursor appears as a dark block with inverse characters). You can change the value of the item (parameter) at which the cursor is located by using the data dial, [INC/YES] and [DEC/NO] buttons.



## Changing (editing) parameter values

Rotating the data dial to the right (clockwise) increases the value, while rotating it to the left (counter-clockwise) decreases it. For parameters with large value ranges, you can increase the value by 10 by simultaneously holding down the [INC/YES] button and pressing the [DEC/NO] button.

To decrease by 10, do the opposite; simultaneously hold down the [DEC/NO] button and press the [INC/YES] button.



## Functions and Sub-Functions

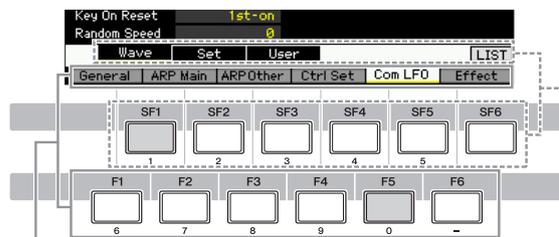
Each mode described above contains various displays, with various functions and parameters. To navigate your way through these displays and select a desired function, use the [F1] – [F6] buttons and the [SF1] – [SF5] buttons. When you select a mode, the available displays or menus appear directly above the buttons at the bottom of the display (as shown below).

Depending on the currently selected mode, up to six functions are available and can be called up with the [F1] – [F6] buttons. Keep in mind that the available functions differ depending on the selected mode.

Depending on the currently selected mode, up to five functions (sub-functions) are available and can be called up with the [SF1] – [SF5] buttons (the [SF6] button is used

mainly to call up the INFO and LIST displays). Keep in mind that the available functions differ depending on the selected mode. (Some displays may not have any sub-functions for these buttons.)

The example display below is called up by pressing the [F5] button then pressing the [SF1] button.



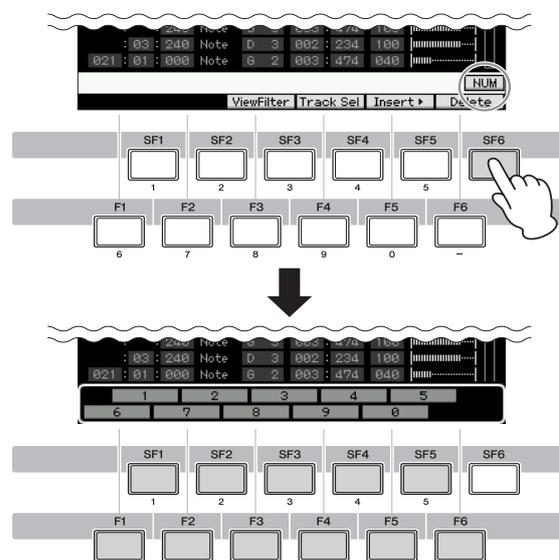
These functions can be selected via the corresponding button ([F1] – [F6]).

These functions can be selected via the corresponding button ([SF1] – [SF6]).

## Inputting a number directly

For parameters having large value ranges (such as the start and end points of a sample), you can also enter the value directly, using the buttons below the LCD display as a numeric keypad. When the cursor is located on such a parameter, the [NUM] icon appears at the lower right corner of the LCD display. When the [SF6] NUM button is pressed in this status, each digit (1 – 9, 0) is assigned to the [SF1] – [SF5] and [F1] – [F5] buttons as shown below, allowing you to input a number directly by using these buttons. Depending on the selected parameter, a negative value can be input. When such a parameter is selected and you wish to input a negative value, press the [F6] button (to which “-” is assigned) then use the [SF1] – [SF5] and [F1] – [F5] buttons.

After completing the number input, press the [ENTER] button to actually enter the number.

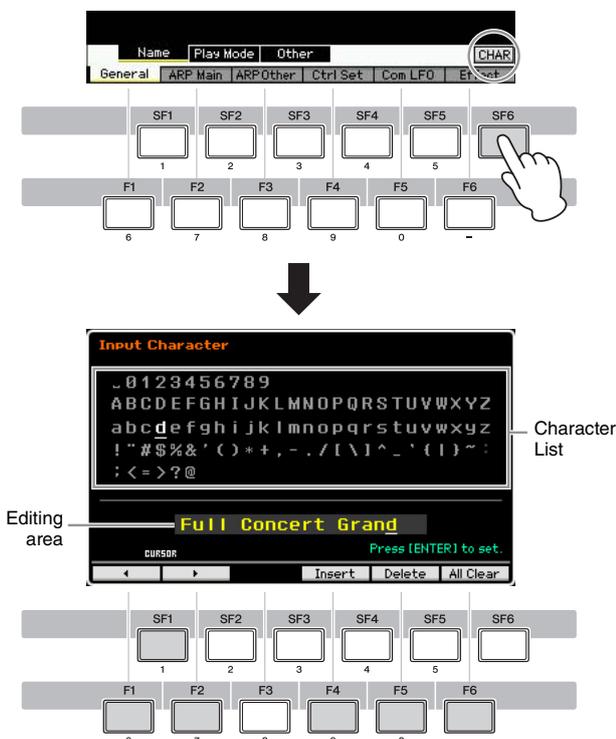


You can use these buttons as the numeric keypad.

## Naming (Inputting Characters)

You can freely name the data you've created, such as Voices, Performances, Songs, Patterns and files saved to a USB storage device.

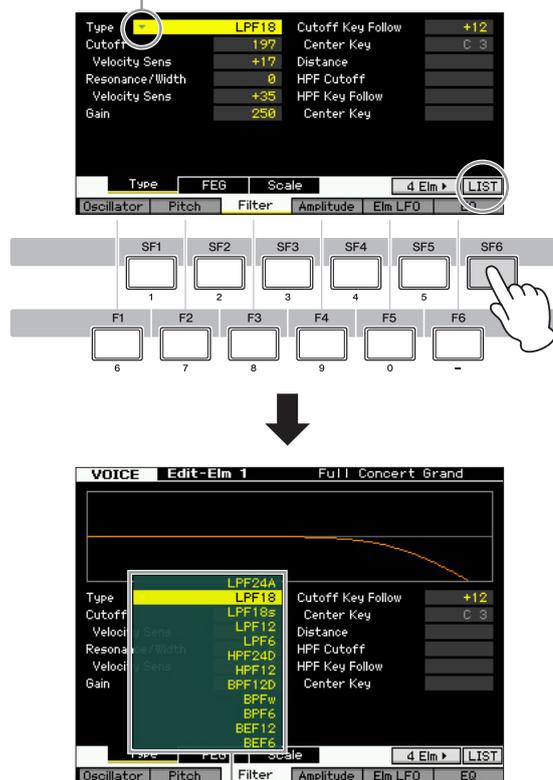
When the cursor is located on such a naming parameter, the CHAR icon appears at the lower right corner of the display. When pressing the [SF6] button in this status, the Input Character window appears as shown below. In the Edit area, you can move the cursor to determine the location at which the character is to be input by using the [F1] and [F2] buttons. In the Character List, you can move the cursor to determine the character to be input by using the Cursor buttons, [INC/YES] button, [DEC/NO] button and the data dial. After selecting the character, press the [F4] button to actually enter the selected character to the location specified in the Edit area. To delete the character at the cursor location, press the [F5] Delete button. To delete all the characters, press the [F6] All Clear button. After completing the character input, press the [ENTER] button to actually enter the currently edited name.



## Calling up the List

Depending on the parameter, you can call up a convenient pop-up List by pressing the [SF6] LIST button, from which you can select the desired parameter setting or item. When the cursor is located on such a parameter (indicated with an upside down triangular arrow), the LIST icon appears at the lower right corner of the display. In this condition, press the [SF6] button to call up the List. To select the desired item or setting, use the [INC/YES], [DEC/NO] buttons and the data dial. After selecting, press the [ENTER] button to fix the selection and close the List.

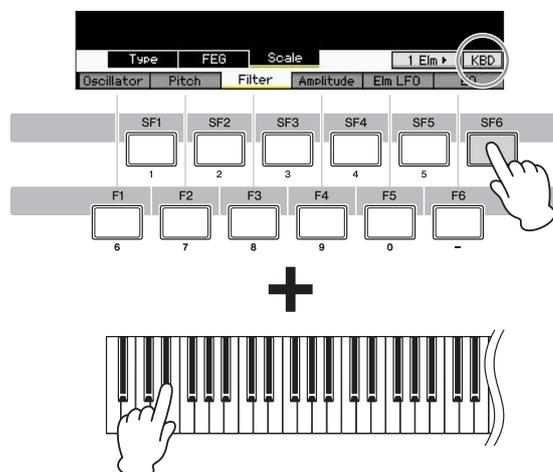
This indicates that you can call up the List by pressing the [SF6] LIST button.



The List appears. You can select one from this List.

## Note (Key) and Velocity settings

Several parameters let you set a key range or velocity range for a function—for example, in setting up a keyboard split—by specifying certain note values. You can use the [INC/YES] and [DEC/NO] buttons or data dial to set these parameters, or you can directly enter the values from the keyboard by pressing the appropriate keys. When the cursor is located on such a parameter, the KBD icon appears at the lower right corner of the display. You can set the note or velocity directly from the Keyboard, by holding down the [SF6] button and pressing the desired key.



# Connections

**NOTE** For the external connections depicted below, you will also need speakers or headphones to listen to the sound. For details, refer to the Owner's Manual.

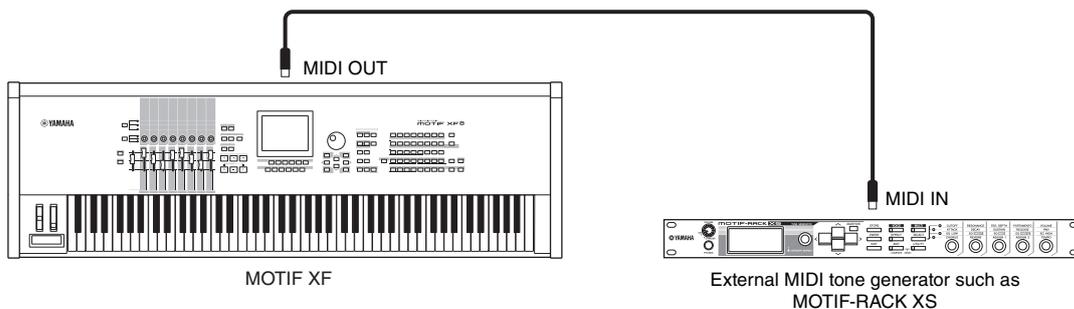
## Connecting External MIDI Instruments

With a standard MIDI cable (available separately), you can connect an external MIDI instrument, and control it from the MOTIF XF. Likewise, you can use an external MIDI instrument (such as a keyboard or sequencer) to control the sounds of the MOTIF XF. Below are several different MIDI connection examples; use the one most similar to your intended setup.

**NOTE** Any one of these interfaces can be used for MIDI data transmission/reception: the MIDI connectors, the IEEE1394 connector (available when the optional FW16E is installed), or the USB connector. However, they cannot be used at the same time. Select which connector is used for MIDI data transfer in the MIDI display (page 228) of the Utility mode.

## Controlling an external tone generator or synthesizer from the MOTIF XF

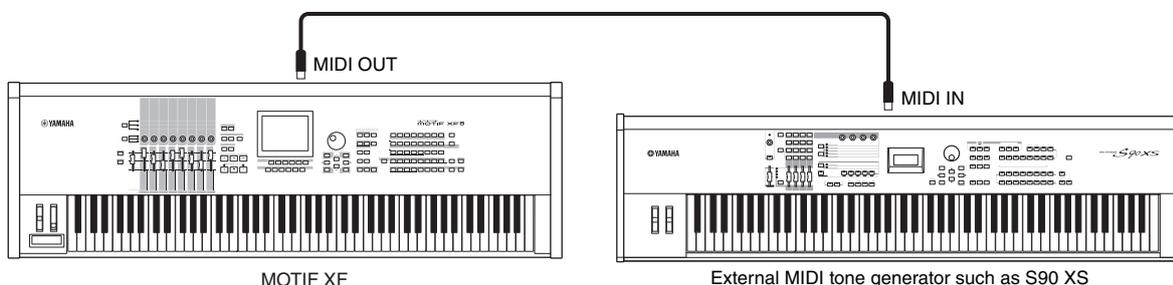
This connection lets you sound an external MIDI tone generator (synthesizer, tone generator module, etc.) by playing the MOTIF XF or playing back the Song/Pattern of the MOTIF XF. Use this connection when you wish to sound the other instrument along with the MOTIF XF.



Make sure to match the MIDI Transmit Channel of the MOTIF XF with the MIDI Receive Channel of the external MIDI tone generator. The MIDI Transmit Channel in the Voice mode and Performance mode can be set in the MIDI display (page 228) of the Utility mode. The Transmit Channels of each track can be set in the Song Track display (page 142) of the Song Play mode. The Transmit Channels of each track can be set in the Pattern Track display (page 169) of the Pattern Play mode.

## Controlling from an external MIDI keyboard

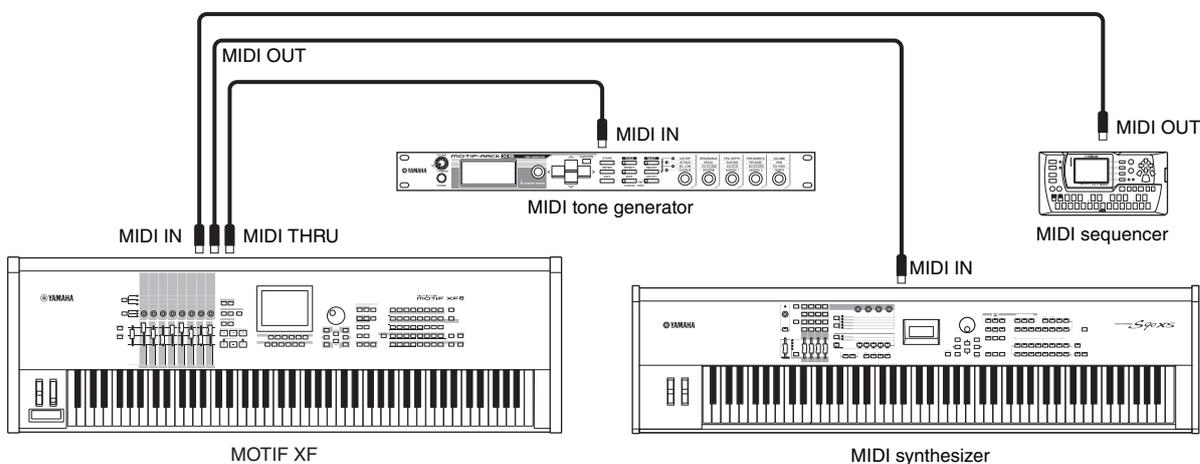
Use an external keyboard or synthesizer (such as the S90 XS) to remotely select and play the Voices of the MOTIF XF.



Make sure to match the MIDI Transmit Channel of the external MIDI instrument with the MIDI Receive Channel of the MOTIF XF. For details on setting the MIDI Transmit Channel of the external MIDI instrument, refer to the Owner's Manual of the MIDI instrument. The MIDI Receive Channel in the Voice mode and Performance mode can be set in the MIDI display (page 228) of the Utility mode. The MIDI Receive Channels in the Song mode and Pattern mode can be set in the Voice display (page 194) of the Mixing Part Edit mode.

## Controlling another MIDI device via MIDI THRU

The playback data of an external MIDI sequencer is used to play the sounds of another MIDI instrument (connected to the MIDI THRU connector) along with the MOTIF XF. The MIDI THRU connector simply redirects any received MIDI data (via MIDI IN) to connected instrument.



In this case, make sure that the MOTIF XF is set to the Song mode or Pattern mode. If the instrument is set to the Voice mode or to the Performance mode in which multi-channel MIDI messages are not recognized, the external sequence data (containing multi-channel data) will not play back properly on the MOTIF XF. In addition, you may have to make certain MIDI synchronization settings (see below). Likewise, make sure to set the MIDI tone generator (connected to the MIDI THRU connector) to the multi-timbral mode. In addition, you'll need to enable the MOTIF XF to respond to external clock, set from the MIDI display (page 228) in the Utility mode.

## Connecting to an MTR (Multi-track Recorder)

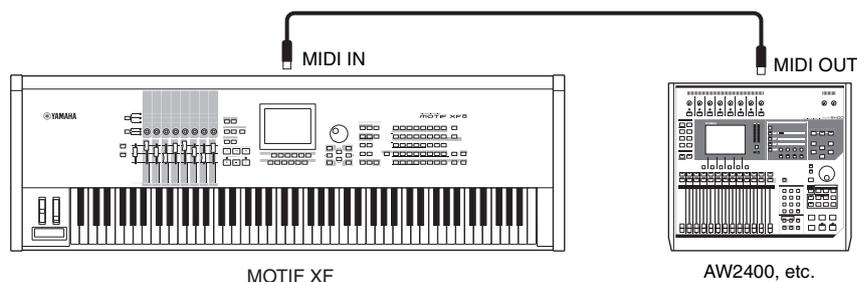
Since this synthesizer can receive the MTC (MIDI Time Code) and can transmit the MMC (MIDI Machine Control), you can produce music by synchronizing to an MTC- or MMC-compatible multi-track recording device. You can use two types of MTR control (illustrated below) by setting the MIDI Sync to MTC in the MIDI display (page 228) of the Utility mode.

**NOTE** MTC and MMC are available only in the Song mode.

## Synchronizing the MOTIF XF to the MTC signal from an external MTR

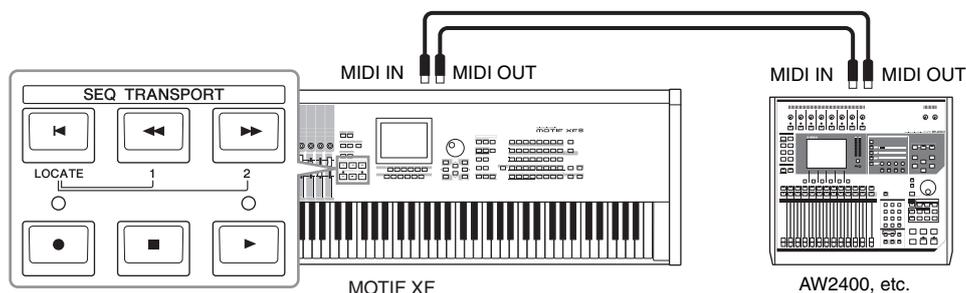
After receiving the MTC signal transmitted from the MTR by starting the MTR playback, the Song of the MOTIF XF will start at the moment the MTC Start Offset time set in the MIDI display (page 228) of the Utility mode is received.

**NOTE** MTC (MIDI Time Code) allows simultaneous synchronization of multiple audio devices via standard MIDI cables. It includes data corresponding to hours, minutes, seconds, and frames. The MOTIF XF does not transmit MTC. An instrument such as the Yamaha AW2400 which can transmit MTC is necessary as an MTC master.



## Controlling an MTR by using MMC transmitted from the MOTIF XF

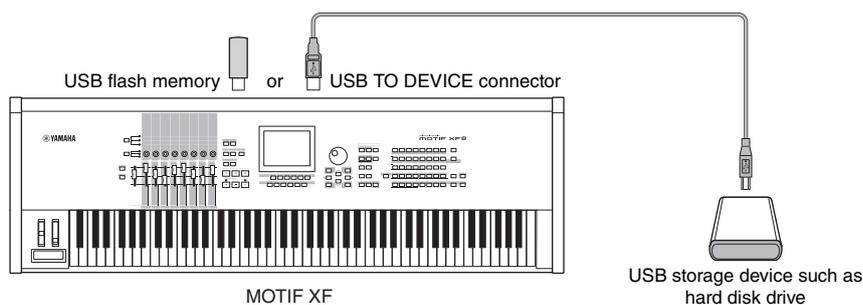
You can control the start/stop and fast forward/rewind of an MMC-compatible MTR from the SEQ TRANSPORT buttons on the front panel of this synthesizer, outputting MMC messages via MIDI.



**NOTE** MMC (MIDI Machine Control) allows remote control of multitrack recorders, MIDI sequencers, etc. An MMC-compatible multitrack recorder, for example, will automatically respond to start, stop, fast forward, and fast reverse operations performed on the controlling sequencer, thus keeping playback of the sequencer and multitrack recorder aligned.

## Using USB storage devices

You can connect a USB storage device such as flash memory or a hard disk unit to the USB TO DEVICE connector on the rear panel and save/load the files (including data created on the MOTIF XF) to and from it. When using USB storage devices, follow the important precautions below.



### Compatible USB devices

Only one USB device (a storage device, such as hard disk drive, CD-ROM drive or flash memory, or a USB-compatible ASCII keyboard) can be connected. Other devices such as a computer mouse cannot be used. Both bus-powered (powered by the host device) or self-powered (battery or external power supply) types can be used. The MOTIF XF does not necessarily support all commercially available USB storage devices. Yamaha cannot guarantee operation of USB storage devices that you purchase. Before purchasing USB storage devices, please consult your Yamaha dealer, or an authorized Yamaha distributor (see list at end of the Owner's Manual) for advice, or visit the following website:

<http://www.yamahasyth.com/support/faq/>

**NOTE** Although CD-R/W drives can be used to load data to the instrument, they cannot be used for saving data. However, you can transfer the data to a computer and save it to a CD using the CD-R/W drive on the computer.

### Formatting USB storage media

When an unformatted USB storage device is connected to the USB TO DEVICE connector or when unformatted media is inserted to the USB device connected to the USB TO DEVICE connector, the indication "unformatted device (usb\*\*\*)" is shown in the device list on the [F3] Format window of the File mode. If this happens, execute the Format operation in the Format display (page 240).

**NOTE** The three asterisks (\*\*\*) in the example indication above denote the sequential serial numbers of the connected devices which need to be formatted. When several partitions are included in a single device, the partition number is indicated at the right of the serial number.

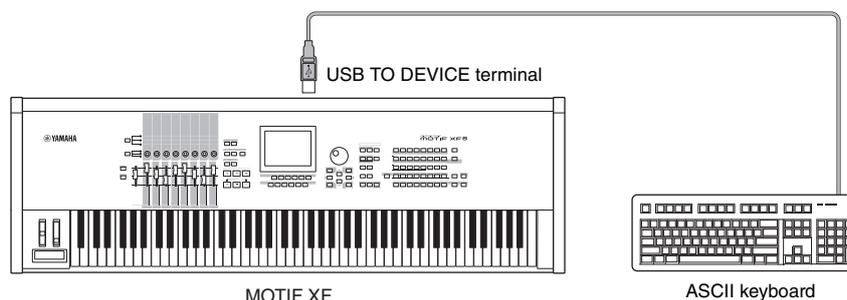
### Precautions when using the USB TO DEVICE connector

#### NOTICE

- Never turn the USB device's power on/off and never plug/unplug the USB cable when the connected USB storage device is the self-powered type. Doing so may result in the operation of the synthesizer "freezing" or hanging up.
- While the instrument is accessing data (such as in the Save, Load and Delete operations in the File mode), do NOT unplug the USB cable, do NOT remove the media from the device, and do NOT turn the power off to either device. Doing so may corrupt the data on either or both devices.

## Connecting a USB ASCII keyboard

You can connect an ASCII keyboard to the instrument via its USB TO DEVICE terminal. This conveniently allows you to type in Voice names, Song names, file names, and other alphanumeric text, to enter values for parameters that would normally require the numeric-keypad function, and to operate the instrument using function keys and shortcut keys.



### Panel buttons and ASCII keyboard equivalents

MOTIF XF	ASCII keyboard	MOTIF XF	ASCII keyboard
F1 – F6	F1 – F6	STOP	End
SF1 – SF6	F7 – F12	PLAY	Page Down
INC/YES	+	EDIT	Print Screen/Sys Rq
DEC/NO	-	JOB	Scroll Lock
EXIT	Escape	STORE	Pause/Break
ENTER	Enter	UP	UP
TOP	Insert	DOWN	DOWN
REWIND	Home	LEFT	LEFT
FORWARD	Page Up	RIGHT	RIGHT
RECORD	Delete	(none)	Numeric keypad* ASCII characters

\*Modes supporting numeric-keypad input:

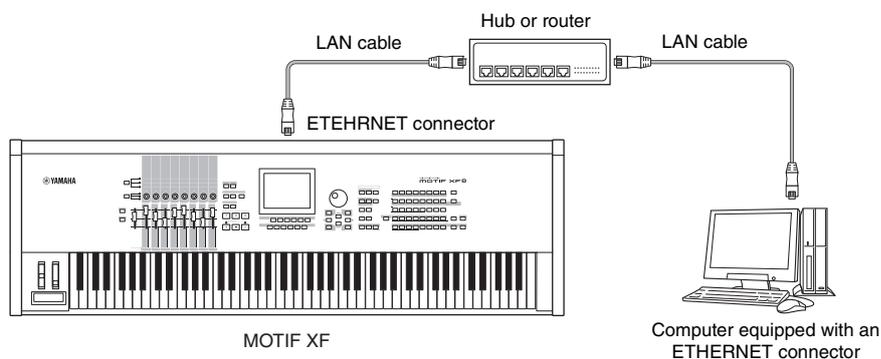
- Song/Pattern Play
- File
- Song/Pattern Edit
- Utility
- Song/Pattern Job
- Sampling
- Mixing Play
- Sequencer Setup

\*Keep in mind that there are certain parameters which do not support numeric-keypad input.

## Network connection

### LAN connection

The MOTIF XF can be connected to a LAN network via the ETHERNET cable. When the MOTIF XF is connected to the LAN network, the File mode lets you save the file created on the MOTIF XF to the computer drive connected to the same network. Connect the MOTIF XF to the router or hub with a LAN cable. Connect a computer to the router or hub with a LAN cable or the wireless connection.



**NOTE** Make sure to use a straight LAN cable.

**NOTE** Due to EU regulations, users within Europe should use an STP (shielded twisted pair) cable to prevent electromagnetic interference.

**NOTE** If your computer is not equipped with an ETHERNET connector, install a commercially available LAN adaptor to the PCI slot or PC Card slot of your computer.

**NOTE** If you have a broadband router to connect your computer to the Internet, use an unused ETHERNET connector on the router to connect the MOTIF XF. Keep in mind however, that this does not allow you the MOTIF XF to be connected to the Internet, but only to other computers and drives on the network.

## Network Settings

After the LAN connection is completed, you should set the network related parameters to make the connection active. Once the MOTIF XF has been connected to the network, files can be saved or loaded between the MOTIF XF and the computer connected to the same network. Call up the Network display (page 221) in the Utility mode.

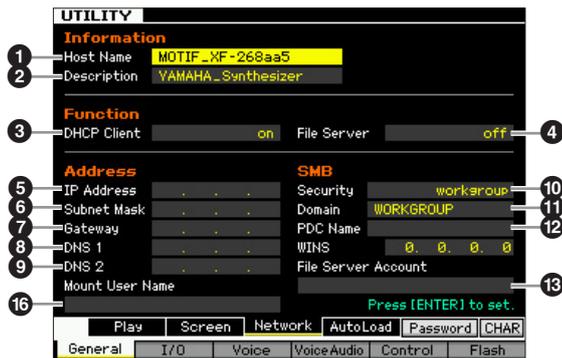
### File Sharing for accessing a computer from the MOTIF XF

Follow the instructions below so that you can access a computer from the MOTIF XF via the LAN network.

#### 1 Call up the Network display (page 221) of the Utility mode.

Press the [UTILITY] button to enter the Utility mode then press the [F1] button and the [SF3] button to call up the Network display.

#### 2 Set the parameters related to the network.



Here, the minimum required settings (parameters 3, 10 and 16) are explained. For details on the other parameters, see page 221.

#### 3 DHCP Client

Set this parameter to “on,” if you have the network using the device with the DHCP server function such as a broadband router. When this is set to on, setting parameters 5 – 9 are not necessary. Set this parameter to “off,” if your network does not use a device with the DHCP server function.

#### 10 Security

Set this parameter to “workgroup,” if your network administrator does not specify otherwise.

#### 16 Mount User Name

Input the User Name necessary for accessing the computer on the network. This can be stored as the parameter setting to the MOTIF XF.

Parameters 1 and 2 are not necessary here.

Parameters 5 – 9 are necessary to be set if your network does not use a device with the DHCP server function. For details, see page 221. For instructions on

setting these parameters, consult your network administrator or provider.

For information on the other parameters, refer to the explanation of the Network display (page 221) in the Utility mode.

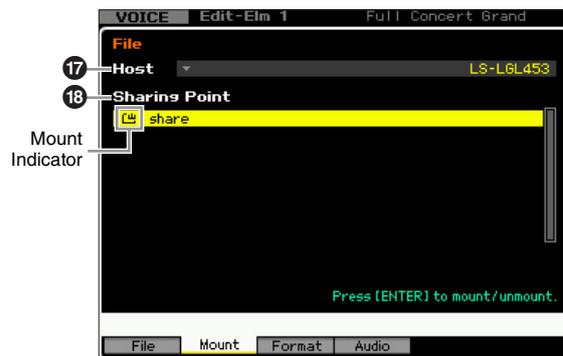
#### 3 Press the [ENTER] button to actually apply the settings to the MOTIF XF.

#### 4 Set the shared directory on your computer.

On your computer, set the folder which you want to access from the MOTIF XF via network to the shared folder. For details, refer to the owner’s manual of your computer.

#### 5 Confirm whether or not the MOTIF XF and the computer are properly connected to the network.

Press the [FILE] button to enter the File mode, then press the [F2] button to call up the Mount display (page 239). If the MOTIF XF and the computer are connected properly, the computer name is shown in the HOST column. If the computer name is not shown, press the [SF5] Char button then enter the computer name directly in the Host (17) column. If the MOTIF XF and the computer are connected properly, the name you input will be recognized.



**NOTE** Confirm the computer name on the operating system of your computer. For details, refer to the owner’s manual of your computer.

**NOTE** When the computer name is not shown on the display with the Windows XP connected, execute the following instructions to show the computer name.

1. Select [Control Panel] → [Administrative Tools] → [Services].
2. Double-click [Messenger] in the list then set “Startup type” to “Automatic.”
3. Click [Apply] then click [Start].

#### 6 In the File mode of the MOTIF XF, access the computer via network so that the shared directory appears on the display.

Call up the Mount display of the File mode. When setting the HOST (17) to a computer name containing the desired shared directory, “Press [ENTER] to access” appears on the display. Next, press the [ENTER] button so that the display prompts you to enter

the password as illustrated below. Here, enter the User Account of your computer to the User Name box, enter the password of your computer to the Password box, then press the [ENTER] button so that the access between the MOTIF XF and the computer is established. The shared directories of the selected computer are listed in the Sharing Point box (18).



**NOTE** If you have set and stored the User Name at 16 in step 2, the User Name is shown automatically when the above display is called up.

**NOTE** Once access between the MOTIF XF and the computer has been established, the shared directories are automatically listed on the display simply by selecting a computer in the Host column. If you turn the power off, however, the operations for establishing access (entering the User Account and Password) are necessary after turning the power on next time.

**NOTE** For details about how to confirm the User Account and Password of your computer, refer to the owner's manual of your computer.

**NOTE** If a password has not been set on your computer, you need not enter the password. Access can be established even if you enter no password.

## 7 Mount the desired directories.

In the Sharing Point box (18), you can mount the shared directory by moving the cursor to the desired directory, then pressing the [ENTER] button. The mount indicator appears at the left side of the mounted directory's name.

By following the instructions above, you can access a computer from the MOTIF XF via the LAN network. For details, see page 41.

## File Sharing for accessing the MOTIF XF from a computer

Follow the instructions below so that you can access the MOTIF XF (actually a USB storage device connected to the MOTIF XF) from a computer via the LAN network. Call up the Network display (page 221) in the Utility mode.

**NOTE** Keep in mind that the internal Flash memory of the MOTIF XF cannot be accessed from a computer via the LAN network. Only the data saved to a USB storage device connected to the MOTIF XF can be accessed from a computer via the LAN network. If you want to share files between the MOTIF XF and a computer, save the data stored in internal Flash memory to an external USB storage device.

### 1 Call up the Network display (page 221) then set the File Server Account (13).

If the account has not been set, the MOTIF XF can be accessed using the account named "nobody."

### 2 Set the password.

Press the [SF5] Password button to call up the password window. For instructions on setting, see page 222.

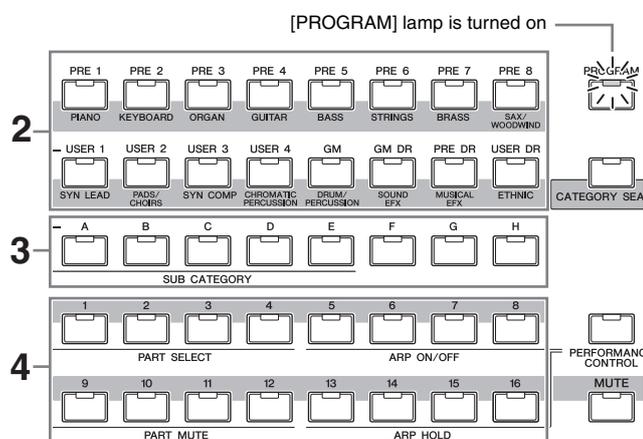
### 3 Set the File Server parameter (4) to "on."

## Playing the Keyboard in the Voice Play Mode

The Voice mode is used for selecting, playing, and editing a desired Voice. The Voice Play mode is the main 'portal' by which you enter the Voice mode, and it is here where you select and play a Voice. Some of the Voice settings can also be edited in this mode. To call up the Voice Play display and enter the Voice mode, simply press the [VOICE] button.

### Selecting a Voice

This synthesizer has 128 Voices in each of 16 Banks: Preset 1 – 8, User 1 – 4, GM, Preset Drum, User Drum, and GM Drum. The Bank consists of eight Groups (A to H), each of which contains 16 Voices. To select the desired Voice, select the Bank, Group, then Number.



#### 1 Press the [VOICE] button to enter the Voice Play mode.

The [PROGRAM] lamp lights, indicating that you can select the desired Voice by specifying the Bank/Group/Number.

#### 2 Select a Voice Bank.

Press one of the Bank buttons listed below to select a Bank. Selecting a Bank calls up the Voice Select window.

Buttons	Banks
[PRE 1] – [PRE 8] buttons	Preset Banks 1 – 8
[USER 1] – [USER 4] buttons	User Banks 1 – 4
[GM] button	GM Bank
[GM DR] button	GM Drum Bank
[PRE DR] button	Preset Drum Bank
[USER DR] button	User Drum Bank

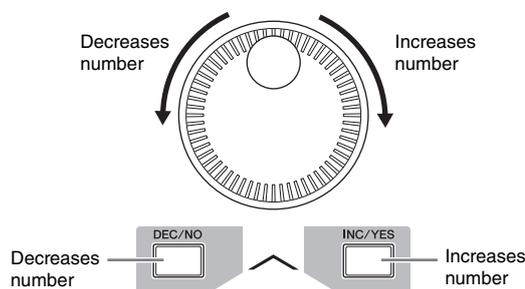
#### 3 Select a Group.

Press one of the [A] to [H] buttons to select a Group. If you've selected a Drum Bank in the previous step, press one of the [A] to [D] buttons to select a Group. The name list of the 16 Voices in the selected Group will appear on the display. Note that the GM Drum Bank contains only one Drum Voice, indicating that you cannot select a Group.

#### 4 Select a Voice.

Press one of the [1] to [16] buttons to select a Voice. In this way (Steps 2 – 4), you can call up your desired Voice.

**NOTE** When selecting the Voice within the same Bank or Group, it is not necessary to select the Bank or Group again. You can use the [INC/YES] and [DEC/NO] buttons or data dial to select the Voice number. This operation lets you call up Voices in subsequent or previous Groups and Banks.



### Select a Voice using the Category Search function

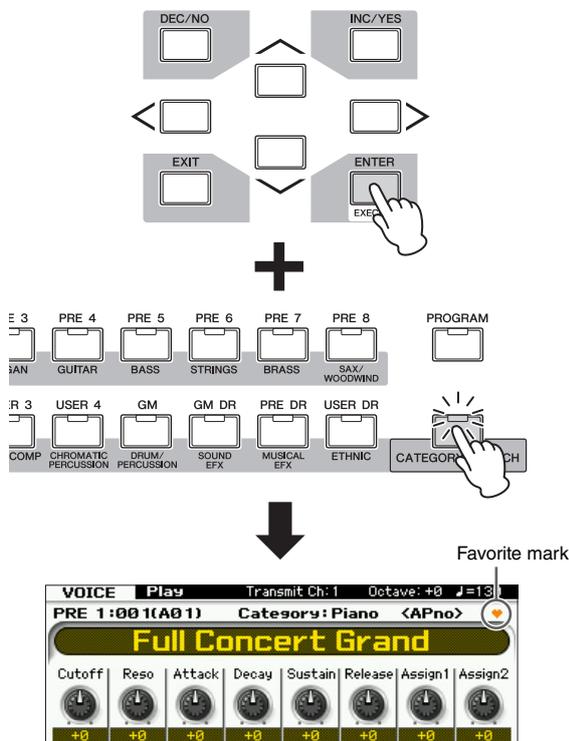
The MOTIF XF features a Category Search function that gives you quick access to the sound you want, irrespective of their Bank locations. For instructions on using the Category Function, refer to the Owner's Manual.

## Grouping your most-used Voices together—Favorite Category

Category Search also has a convenient Favorite Category that lets you bring together your most often used and favorite Voices for easy selection. This is one more useful way the MOTIF XF lets you quickly select the Voices you need from the huge number available.

### Registering your favorite Voices to the Favorite Category

You can quickly register the selected Voice to a Favorite Category by holding the [ENTER] button and the [CATEGORY SEARCH] button in the Voice Play display.



Performing the same operation again will remove the registration. You can conveniently use this operation to register favorite Voices you find while playing the instrument.

If you find favorite Voices while using the Category Search function, use the following operation.

**1 Press the [VOICE] button to enter the Voice Play mode.**

**2 Call up the Category Search window.**

Press the [CATEGORY SEARCH] button so that its indicator lights and the Category Search window appears.

**3 Select your favorite Voice.**

Find the desired Voice by following the instructions on the Owner's Manual.

**4 Register the Voice to the Favorite Category.**

Press the [F5] button to register the Voice and turn on the Favorite Switch. A checkmark appears in the box to the left of the Voice name, indicating that the Voice has been included in the Favorite Category. (Pressing the [F5] button again turns the checkmark off, clearing the selected Voice from the Favorite Category.) To clear all previously registered Voices from the Favorite Category—useful for when you want to create the Favorite Category from scratch—press the [F6] button.



### Selecting a Voice from the Favorite Category

**1 Call up the Favorite Select window.**

From the Category Search window, press the [F4] button to call up the Favorite Select window. The Favorite Select window shows all Voices registered to the Favorite Category.



**2 Select a Voice.**

Select the desired Voice by using the [INC/YES] and [DEC/NO] buttons or data dial to move the cursor upward or downward in the Voice List.

**NOTE** The order of the Voices in the Favorite Category cannot be changed. If you want to create a custom order of Voices for quick selection during your performance, store the Voices to one of the User banks.

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

Reference

## Using Knobs and Control Sliders

One of the more powerful performance features of the MOTIF XF is its extensive set of real-time controls—especially the Knobs and Control Sliders. These let you adjust a variety of parameters for the current Voice, such as effect depth, attack/release characteristics, tonal color, and others. These real-time controls can be used to change the sound as you play or to quickly edit and customize the Voice. Three functions can be assigned to each knob, alternatively selected via the [SELECTED PART CONTROL] button. Each time the button is pressed, the lamp lights alternatively in descending order, TONE 1 → TONE 2 → ARP FX. For details, refer to the Owner’s Manual.

**NOTE** If the [E] (Edit) Indicator appears in the top right of the display, the current Voice can be stored (page 54) as a new User Voice.

**NOTE** Holding down the [SELECTED PART CONTROL] button for a few seconds will alternate the lit lamp from the current one to TONE 1.

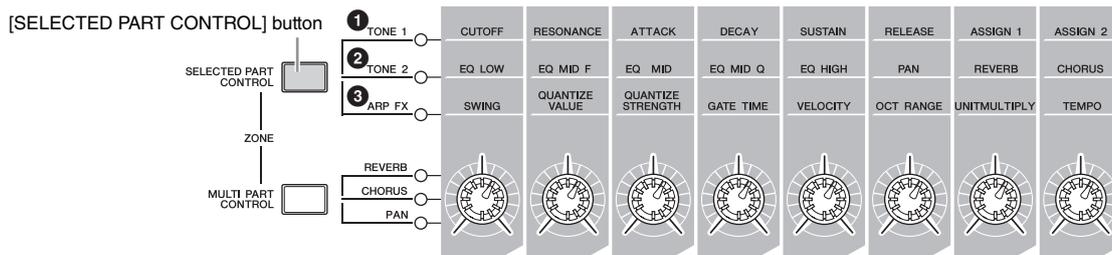
**NOTE** A red point on the Knob or Slider graphic indicates the current value to which the Knob or Slider is set. Moving the Knob or Slider has no effect on the sound until this point is reached. Once you move the Knob or Slider past this point, the red point disappears and moving the Knob or Control Slider affects the sound.

**NOTE** You can confirm the functions assigned to the eight knobs in the Voice Play display, called up via the [F1] button. When a display other than the Voice display is shown, you can confirm the knob functions by pressing the [SELECTED PART CONTROL] button, which calls up the Control Function window.

Red point (current value)



## Knob Functions



① When the TONE 1 lamp is turned on:		Moving Knobs 1 and 2 changes the Filter parameters on the EG/EQ display. Moving Knobs 3 – 6 changes the Amplitude EG parameters.
Knob 1	CUTOFF	Raises or lowers the Filter Cutoff Frequency (page 51) to adjust the tone brilliance.
Knob 2	RESONANCE	Raises or lowers the Resonance (page 51) to boost the level of the signal in the area of the cutoff frequency. By emphasizing the overtones in this area, this can produce a distinctive “peaky” tone, making the sound brighter and harder.
Knob 3	ATTACK	Increases or decreases the EG Attack Time (page 51) of the current Voice. The smaller the value, the faster the attack.
Knob 4	DECAY	Increases or decreases the EG Decay Time (page 51) of the current Voice to determine how fast the volume falls from maximum attack level to the sustain level. The smaller the value, the faster the decay.
Knob 5	SUSTAIN	Increases or decreases the EG Sustain Level (page 51) at which the volume will continue while a key is held, after the initial attack and decay. Turn the knob counter-clockwise to make the sound cut off more sharply after the decay.
Knob 6	RELEASE	Increases or decreases the EG Release Time (page 51) of the sound to determine how fast the volume falls from the sustain level to zero when a key is released. The lower the value, the faster the release.
Knob 7	ASSIGN 1	A variety of functions can be assigned to these Knobs. You can confirm the functions currently assigned to these Knobs in the Voice Play display (page 48). The Controller Set display (page 61) in the Voice Common Edit mode lets you assign the functions to these Knobs.
Knob 8	ASSIGN 2	
② When the TONE 2 lamp is turned on:		Moving Knobs 1 – 5 changes the EQ parameters in the EG/EQ display (page 51). Moving Knobs 6 – 8 changes the parameters in the Play Mode display (page 55) and the Effect Connect display (page 64) of the Voice Common Edit mode.
Knob 1	EQ LOW	Increases or decreases the EQ Low Gain (page 51) to change the sound.
Knob 2	EQ MID F (EQ Middle Frequency)	Increases or decreases the EQ Middle Frequency (page 51) around which the band is adjusted via Knob 3 (EQ MID).
Knob 3	EQ MID (EQ Middle Gain)	Increases or decreases the EQ Middle Gain (page 51) to change the current Voice.
Knob 4	EQ MID Q (EQ Middle Q)	Increases or decreases the EQ Middle Q (page 51) to change the width of the band over which you can adjust the gain via Knob 3 (EQ Middle Gain). Turning Knob 4 clockwise increases the Q value to reduce the band width. Turning Knob 4 counter-clockwise decreases the Q value to widen the band width.

Knob 5	EQ HIGH (EQ High Gain)	Increases or decreases the EQ High Gain (page 51) to change the current Voice.
Knob 6	PAN	Adjusts the stereo pan position of the current Voice (page 56).
Knob 7	REVERB	Adjusts the Reverb Send Level (page 65).
Knob 8	CHORUS	Adjusts the Chorus Send Level (page 65).
<b>③ When the ARP FX lamp is turned on:</b>		Moving Knobs changes the Arpeggio related parameters in the Voice Common Edit mode. This operation is available when the Arpeggio function is turned on.
Knob 1	SWING	Adjusts the swing feel of the Arpeggio playback (page 60). Turning it clockwise increases the swing feel whereas turning it counter-clockwise decreases it.
Knob 2	QUANTIZE VALUE	Adjusts the Quantize Value (page 59), or note resolution, to which the note data of the Arpeggio will be aligned. Turning it clockwise increases the gate time of the note type set as the Quantize Value whereas turning it counter-clockwise decreases it.
Knob 3	QUANTIZE STRENGTH	Adjusts the Quantize Strength (page 60) by which note events of the Arpeggio are pulled toward the nearest quantize beats. Turning the Knob clockwise pulls note events to the quantize beat.
Knob 4	GATE TIME	Adjusts the Gate Time Rate (page 60) of the Arpeggio notes. Turning it clockwise lengthens the gate times to produce legato playback whereas turning it counter-clockwise shortens them.
Knob 5	VELOCITY	Adjusts the Velocity Rate (page 60) of the Arpeggio notes.
Knob 6	OCT RANGE (Octave Range)	Adjusts the Octave Range (page 60) for the Arpeggio playback.
Knob 7	UNITMULTIPLY	Adjusts the Unit Multiply (page 59) of the Arpeggio playback to expand/reduce the Arpeggio playback time based on tempo.
Knob 8	TEMPO	Adjusts the tempo for the Arpeggio playback.

**NOTE** Controlling the Knob adds the parameter value to the current one for the current Voice. Accordingly, if the parameter has been already set to the maximum or minimum value, its value will not be changed even if you operate the Knob.

### Control Slider functions

The eight Control Sliders let you adjust the volume of eight Elements (page 9) making up the current Normal Voice. Each of the Control Sliders 1 – 8 corresponds to each of Elements 1 – 8. It is a good idea to check which Elements are used for the current Normal Voice by using the Information display (page 50) before using the Control Sliders. Keep in mind that when a Drum Voice is selected, a single Slider may affect the volume of all sounds/keys simultaneously.

### The [E] Indicator

When changing the value of the parameter in the Voice Play or Edit mode, the [E] (Edit) Indicator will appear on the top right corner of the LCD display. This gives a quick confirmation that the current Voice has been modified but not yet stored. To store the current edited status, follow the instructions on page 54.



### Keyboard MIDI transmit channel setting

You can set the MIDI transmit channel over which the keyboard/controller performance sends MIDI data (to an external sequencer, tone generator, or other device).

- 1 Press the [TRACK] button so that its lamp lights.**
- 2 Pressing any of the Number buttons [1] – [16] to determine the MIDI transmit channel.**
- 3 After setting, press the [PROGRAM] button to return to the original status.**

**NOTE** This parameter is same as the Keyboard Transmit Channel (page 228) in the MIDI display of the Utility mode. Making a setting here automatically changes the setting of that parameter as well.

### Keyboard Octave setting

Sometimes when playing a Voice, you may wish to play in a lower or higher pitch range. For example, you may want to shift the pitch down lower to get extra bass notes, or shift up to get higher notes for leads and solos. The Octave Up/Down controls let you do this quickly and easily. Each time you press the OCTAVE [UP] button on the panel, the overall pitch of the Voice goes up by one octave. Likewise, each press of the OCTAVE [DOWN] button takes the pitch down by one octave. The range is from -3 to +3, with 0 being

Reference

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

standard pitch. The current octave setting is shown at the top right of the display. You can instantly restore standard pitch (0) by simultaneously pressing both the OCTAVE [UP] button and the OCTAVE [DOWN] button (both lamps turn off).

The lamp status of the OCTAVE [DOWN]/[UP] button lets you recognize at a glance the current octave setting. When set to one octave down or up, the corresponding lamp lights. When set to two octaves down or up, the corresponding lamp flashes slowly. When set to three octaves down or up, the corresponding lamp flashes quickly.

**NOTE** This parameter is same as the Octave (page 220) in the Play display of the Utility mode. Making a setting here automatically changes the setting of that parameter as well.

**NOTE** If you wish to shift notes on the keyboard up or down in semitones, edit the Transpose parameter (page 220) in the Play display of the Utility mode.

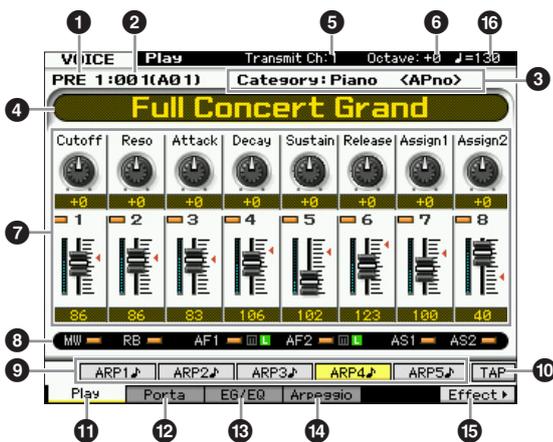
## Using the Arpeggio function

The Arpeggio function lets you trigger rhythm patterns, riffs and phrases using the current Voice by simply playing notes on the keyboard. For instructions on using the Arpeggio, refer to the Owner's Manual.

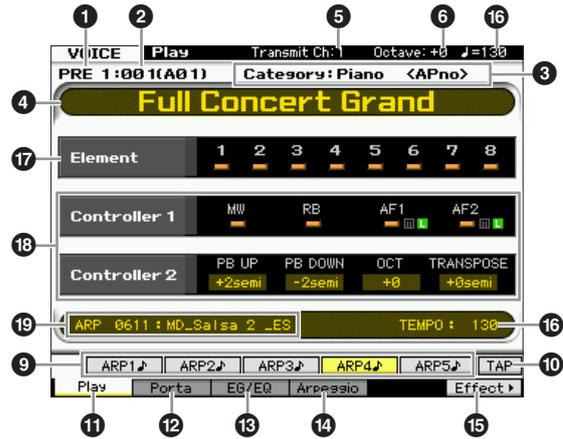
## The Voice Play display—[F1] Play

The Voice Play display called up via the [VOICE] button has two design types, which can be specified in the Screen Setting display (page 220) of the Utility mode.

### Type 1 of the Voice Play display



### Type 2 of the Voice Play display



#### 1 Voice Bank

Indicates the Bank of the current Voice.

The Voice Bank is the memory that includes data of Normal Voices and Drum Voices. There are 16 Voice Banks as follows.

##### PRE1 – 8 (Preset Bank 1 – 8)

Each of these Banks includes 128 different preset Voices.

##### USR1 – 4 (User Bank 1 – 4)

These Banks can be used for storing the Voices you create and edit.

##### GM

This Bank contains 128 different Voices which correspond to the order specified by the General MIDI (GM) format.

##### GMDR (GM Drum Bank)

This Bank contains a single Drum Voice, in which the drum instrument assignment corresponds to the General MIDI (GM) format.

##### PDR (Preset Drum Bank)

This Bank includes 64 different preset Drum Voices.

##### UDR (User Drum Bank)

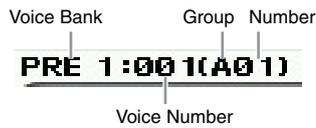
This Bank can be used for storing the Drum Voices you create and edit.

#### GM Voices

GM (General MIDI) is a worldwide standard for Voice organization and MIDI functions of synthesizers and tone generators. It was designed primarily to ensure that any song data created with a specific GM device would sound virtually the same on any other GM device—no matter the manufacturer or the model. The GM Voice bank on this synthesizer is designed to appropriately play back GM song data. However, keep in mind that the sound may not be exactly the same as played by the original tone generator.

## 2 Voice Number (Group/Number)

Each Voice within a Bank is assigned to a Voice Number of 001 to 128.



Voice Numbers 001 to 128 are converted to the format (shown in the parentheses) related to Banks A to H and Numbers 1 to 16 (for each Bank). This format is related to the Group buttons [A] – [H] and the Number buttons [1] – [16]. The Voice Numbers and the corresponding Group/Numbers are listed below.

Group/Number	Voice Number
A01 – 16	001 – 016
B01 – 16	017 – 032
C01 – 16	033 – 048
D01 – 16	049 – 064
E01 – 16	065 – 080
F01 – 16	081 – 096
G01 – 16	097 – 112
H01 – 16	113 – 128

## 3 Category (Main Category 1/Sub Category 1)

Indicates the Main Category 1 and Sub Category 1 of the selected Voice. “Category” is a keyword that indicates the instrument characteristics or the type of sound. A Preset Voice is registered to two sets: Main Category and Sub Category. The Category settings can be edited in the General display (page 55) of the Voice Common Edit. For details, refer to the explanation of the General display.

## 4 Voice Name

Indicates the name of the current Voice.

## 5 Transmit CH (MIDI Transmit Channel)

Indicates the MIDI channel over which the keyboard/controller performance sends MIDI data (to an external sequencer, tone generator, or other device). For information about how to set the value, see page 47.

## 6 Octave

Indicates Keyboard Octave setting set via the OCTAVE buttons. This parameter determines how much higher or lower the pitch of each key is compared to normal pitch.

## 7 Control Function

Indicates the status of the Knobs and Control Sliders on the panel. This is same as the Control Function window (page 46).

## 8 Assign Settings

This section indicates whether or not each of the controllers is assigned to the source of the Controller Set.

## 9 [SF1] ARP1 – [SF5] ARP5 (Arpeggio 1 – 5)

The Arpeggio types are assigned to the buttons with the 8th note icon on the display tab. You can call them up by pressing these buttons any time during your keyboard performance. Assigning Arpeggio types to the buttons can be done from the Arpeggio display (page 52).

## 10 [SF6] TAP

The speed at which you press this button several times will determine the playback tempo of the Arpeggio.

**NOTE** This menu is available only for the top display of the Voice mode.

## 11 [F1] Play (Voice Play)

Pressing this button returns from the previous display to the Voice Play display.

## 12 [F2] Porta (Portamento)

Pressing this button calls up the Portamento display (page 50).

## 13 [F3] EG/EQ (Envelope Generator/Equalizer)

Pressing this button to call up the display that contains the basic EG, Filter, and EQ settings (page 51).

## 14 [F4] Arpeggio

Pressing this button calls up the Arpeggio display page 52).

## 15 [F6] Effect

Pressing this button calls up the Effect Connect display (page 64) of the Voice Common Edit mode.

## 16 Arpeggio tempo

Indicates the tempo of Arpeggio playback.

## 17 Element on/off status

Indicates the on/off status for each Element of the current Voice. This is available only when a Normal Voice is selected.

## 18 Current Values

Indicates the current Pitch Bend range (PB UP and PB DOWN), current octave setting of the keyboard (OCT) and current transpose setting.

## 19 Current Arpeggio Type

Indicates the current Arpeggio Type selected via the [SF1] – [SF5] buttons.

## Voice information—[SF6] INFO (Information)

This display indicates the information of the current Voice. Settings cannot be changed here.



### 1 Bank

Indicates the Bank of the selected Voice program. The values in parentheses indicates the Bank Select MSB and LSB which can be used to select the current Voice via MIDI.

### 2 Program (Voice Number)

To each Voice within a Bank, a Number of 001 to 128 is assigned. The values in parentheses indicates Group and Number.

### 3 Category 1 (Main Category 1/Sub Category 1) Category 2 (Main Category 2/Sub Category 2)

Indicates the Main Category 1/Sub Category 1 and Main Category 2/Sub Category 2 to which the current Voice is registered.

### 4 Name

Indicates the name of the current Voice.

### 5 Voice Type

Indicates whether the current Voice type is the Normal Voice or Drum Voice.

### 6 Mono/Poly

Indicates whether the current Voice is set to Mono (only one note can be played at a time) or Poly (multiple notes can be played at a time).

### 7 Element Switch

Indicates the status (active/inactive) of the eight Elements making up the current Voice. Elements that are active are indicated by their corresponding numbers. An asterisk "\*" indicates the corresponding Element is muted although the Element Switch parameter is turned on.

A hyphen "-" indicates the corresponding Element Switch parameter is turned off.

### 8 Portamento

Indicates the Portamento Switch on/off status (page 50) of the current Voice.

### 9 Pitch Bend Range

Indicates the Upper/Lower setting of the Pitch Bend Range (page 56) for the current Voice.

### 10 Effects

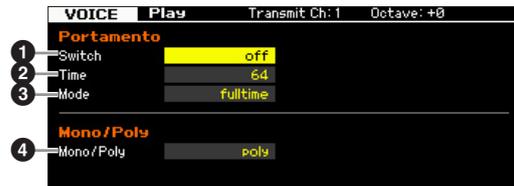
Indicates the Effect settings (for Insertion A, Insertion B, Reverb and Chorus) of the current Voice.

**NOTE** Parameters 6, 7 and 8 are not available when the Drum Voice is selected.

## Portamento settings—[F2] Porta

From this display you can select monophonic or polyphonic playback and set the Portamento parameters. Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next. The value set here is applied to the parameters having the same names in the Play Mode display (page 48) of the Voice Common Edit mode.

**NOTE** This display is not available when a Drum Voice is selected.



### 1 Portamento Switch

### 2 Portamento Time

### 3 Portamento Mode

### 4 Mono/Poly Mode

These are the same as in the Play Mode display (page 55) of the Voice Common Edit.

## Applying the Portamento to the Voice

Follow the instructions below to apply the Portamento to the current Voice you play on the keyboard.

### 1 Press the [VOICE] button to enter the Voice Play mode.

Select a Voice to which the Portamento is applied. The Portamento is effective especially for a Voice that sustains or continues to sound while the key is being held down.

### 2 Press the [F2] button to call up the Portamento display.

### 3 Set the Portamento Switch to on.

### 4 Set the Portamento Time.

For best results, set this to a relatively high value.

### 5 Play two different keys alternatively to confirm the Portamento.

It is a good idea to press a certain note then press the one octave higher or lower note for confirming how the Portamento is applied.

## Changing tonal color—[F3] EG/EQ

You can change the tonal color or timbre of the sound by editing the EG/EQ settings for all Elements making up the Voice. The EG settings made here will be applied to the same parameters in the Amplitude EG display (page 80) and Filter EG display (page 76) for all Elements as an offset. In other words, editing the value here will add to or subtract from the current value. Accordingly, if the parameter has been already set to the maximum or minimum value, its value will not be changed even if you set the parameter to higher or lower value in this display. Note that the EQ settings here are applied to the Voice directly.



### 1 AEG (Amplitude EG)

Using the AEG, you can control the transition in volume from the moment the sound starts to the moment the sound stops.

#### Attack (Attack Time)

Determines the speed of attack from the time a key is played until the maximum initial level of the EG is reached.

#### Decay (Decay Time)

Determines how fast the volume falls from maximum attack level to the sustain level.

#### Sustain (Sustain Level)

Determines the sustain level at which the volume will continue while a note is held, after the initial attack and decay. The smaller the value, the sharper the sound.

#### Release (Release Time)

Determines how fast the volume falls from the sustain level to zero when a note is released.

**Settings:** -64 – +0 – +63

**NOTE** When a Drum Voice is selected, the Sustain Level and Release Time are not available. “---” appears at each of the corresponding columns and these parameters cannot be edited.

### 2 FEG (Filter EG)

Using the FEG, you can control the transition in tonal color (Cutoff Frequency) from the moment the sound starts to the moment the sound stops. Actual transition of tonal color differs depending on the Filter type (page 74) of the Voice Element.

#### Attack (Attack Time)

Determines the speed of filter variation from the time a note is played until the maximum initial level of the Cutoff Frequency is reached.

#### Decay (Decay Time)

Determines how fast the Cutoff Frequency falls from maximum attack level to the sustain level.

#### Release (Release Time)

Determines how fast the Cutoff Frequency falls from the sustain level to zero when a note is released.

#### Depth

Determines the range over which the cutoff frequency of the Filter EG changes. A setting of 0 will result in no change in the cutoff frequency. The farther from 0 the value is, the larger the range of the cutoff frequency. For negative values, the change of the cutoff frequency is reversed.

**Settings:** -64 – +0 – +63

### 3 Filter

This unit modifies the tonal color of the sound by cutting the output of a specific frequency portion of the sound. Actual tonal color differs depending on the Filter type (page 74) of the Voice Element. The Low Pass Filter cuts the signals above the Cutoff Frequency while the High Pass Filter cuts the signals below the Cutoff Frequency.

#### Cutoff

Determines the Cutoff Frequency for the Filter, when the Low Pass Filter is selected, for example, the larger the value the brighter the decay.

#### Reso (Resonance)

Determines the emphasis given to the Cutoff Frequency. Higher values result in a more pronounced effect.

**Settings:** -64 – +0 – +63

### 4 EQ

This is a parametric EQ featuring three bands (High, Mid and Low). You can attenuate or boost the level of each frequency band (High, Mid, Low) to change the Voice sound. For the Mid band, you can also set the Q (Band Width).

#### Frequency

Determines the frequency for each frequency band. Set the value to the frequency around which you wish to attenuate or boost.

#### Settings:

Low: 50.1Hz – 2.00kHz  
Mid: 139.7Hz – 10.1kHz  
High: 503.8Hz – 14.0kHz

**Gain**

Determines the level gain for the Frequency (set above), or the amount the selected frequency band is attenuated or boosted. The higher the value, the greater the Gain. The lower the value, the lesser the Gain.

**Settings:** -12.00 dB – +0.00 dB – +12.00 dB

**Q (Bandwidth)**

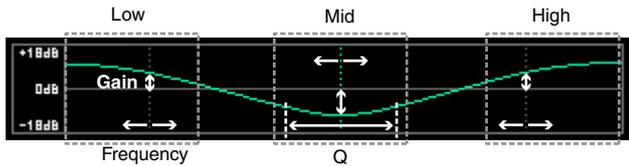
Determines the Q (bandwidth) for the Mid band. The higher the value, the smaller the bandwidth. The lower the value, the wider the bandwidth.

**Settings:** 0.7 – 10.3

**NOTE** The Q setting is available only for the Mid band, which is a Peaking type EQ. Peaking (referring to the “peak” shape) lets you attenuate/boost a specific frequency and allows you to control how wide or narrow the bandwidth is. On the other hand, the EQ shape of the High and Low band is the Shelving type which lets you attenuate/boost the signal at frequencies above or below the specified Frequency setting.

**5 EQ graph**

Indicates the EQ settings as a graph. The vertical axis indicates the gain, and the horizontal axis indicates the frequency.



**Arpeggio settings—[F4] Arpeggio**

This display determines the basic settings of the Arpeggio. Keep in mind that the parameters of Bank (6) – Type (9) have five settings which can be edited in each of the [SF1] ARP1 through [SF5] ARP5 displays. The value set here is applied to the parameters having the same names in the Arpeggio Main display (page 58) of the Voice Common Edit mode.



Arpeggio Type Name

- 1 Switch
- 2 Hold
- 3 Tempo
- 4 Velocity Limit
- 5 [SF1] ARP1 – [SF5] ARP5 (Arpeggio 1 – 5) buttons
- 6 Bank
- 7 Category
- 8 Sub Category
- 9 Type

These are the same as in the Arpeggio Main display (page 58) of the Voice Common Edit.

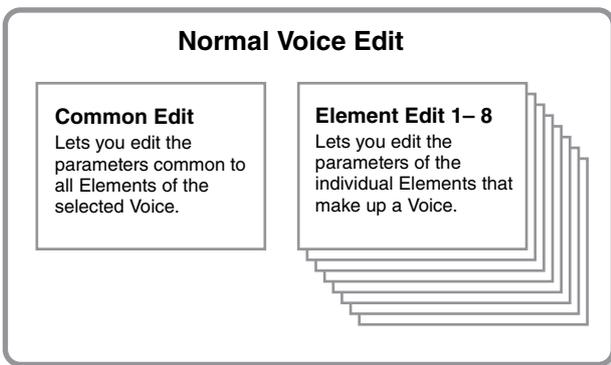
- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

# Editing a Normal Voice

“Editing” refers to the process of creating a Voice by changing the parameters that make up the Voice. This can be done in Voice Edit, a sub mode within the Voice mode. To enter the Voice Edit mode, press the [VOICE] button to first call up the Voice mode, then press the [EDIT] button.

## Common Edit and Element Edit

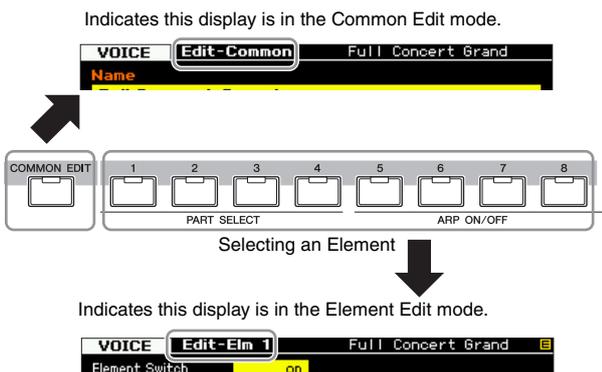
A Normal Voice, which contains pitched musical instrument-type sounds that can be played over the range of the keyboard, can consist of up to eight Elements. There are two types of Normal Voice Edit displays: those for Common Edit to edit the settings common to all Elements, and those for Element Edit to edit individual Elements.



## Editing Normal Voices

- 1 Press the [VOICE] button to enter the Voice Play mode.**  
Select a Normal Voice to be edited.
- 2 Press the [EDIT] button to enter the Voice Edit mode.**
- 3 Call up the desired Edit display, Common Edit or Element Edit.**

To call up the Common Edit display, press the [COMMON EDIT] button. To call up the Element Edit display, press one of the Number buttons [1] – [8] to select the Element to be edited.



### 4 Call up the desired display.

To find the desired display, note the tab menu items corresponding to the [F1] – [F6] buttons and [SF1] – [SF5] buttons at the bottom of the display.



**NOTE** By pressing the [SF6] button, you can use various functions such as the Information display, Character input (page 37), Number button function (page 36), and List display/selection (page 37). The function called up via the [SF6] button differs depending on the selected parameter where the cursor is located.

- 5 Move the cursor to the desired parameter.**
- 6 Edit the value by using the [INC/YES], [DEC/NO] buttons and the data dial.**
- 7 Repeat steps 3 – 6 as desired.**
- 8 Enter the desired name for the edited Voice.**  
Use the Name display (page 55) of the Voice Common Edit mode.
- 9 Store the edited Voice.**  
Press the [STORE] button to call up the Store window (page 54) then store the edited Voice.

### NOTICE

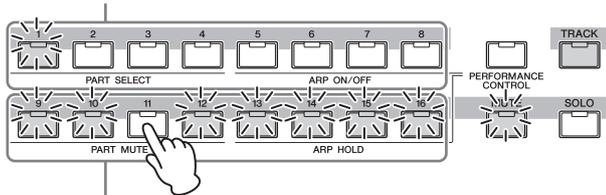
- The edited Voice will be lost when selecting the different Voice or turning the power off. Make sure to store the Voice data to the internal memory by pressing the [STORE] button before selecting a different Voice or turning the power off.
- Because User Memory to which the Voice is stored is Flash Memory, the edited and stored Voice will not be erased even if the power is turned off. You need not worry about losing your stored data. The Voice Store operation, however, will overwrite the Voice data already stored to the destination Voice number. For this reason, important data should always be backed up to a separate USB storage device or to a computer connected via network to the MOTIF XF (page 241).

## Convenient functions for editing Voices

### Switching an Element on/off

In the Voice Edit mode, you can always use the number buttons [1] – [8] to select an Element. The [1] – [8] buttons indicate the Element being edited. To switch each Element on/off, turn the [MUTE] button on, and then use number buttons [9] – [16].

Use number buttons [1] – [8] to select the Element you want to edit

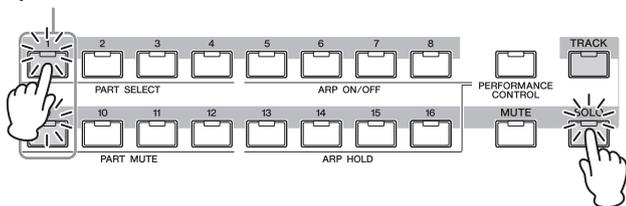


Use number buttons [9] – [16] to turn each Element on/off

### Soloing the Element to be edited

If you want to turn on only the Element you're editing, press the [SOLO] button to turn it on, and then press a number button [1] – [8] or [9] – [16]. For example, if you want to turn on only Element 1 and edit it, press the [1] or [9] button to make the [1] indicator light and the [9] indicator flash.

Use number buttons [1] – [8] / [9] – [16] to turn on only the Element you want to edit



### The [E] Indicator

The [E] (Edit) indicator will appear in the Voice Edit mode as well as in the Voice Play mode. For details, see page 47.

### Compare function

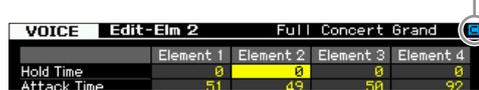
The Compare function lets you switch between the just-edited Voice and its original, unedited condition, allowing you to hear how your edits affect the sound.

#### 1 Press the [EDIT] button to call up the Compare mode.

In the Voice Edit mode (with the [EDIT] lamp lit), press the [EDIT] button so that its lamp flashes. The [E] indicator at the top right of the screen will change to the [C] indicator and the Voice settings prior to editing will temporarily be reinstated for comparison purposes.

When the [E] indicator is shown in the Voice Play mode, press the [EDIT] button to enter the Voice Edit mode then press the [EDIT] button again to call up the Compare mode.

Compare indicator (sound prior to editing)



#### 2 Press the [EDIT] button again to return to the original status.

When the [C] indicator is shown at the right top of the display, press the [EDIT] button (the lamp lights continuously, and the [C] indicator changes back to the [E] indicator).

Compare the edited sound with the unedited sound as desired by repeating steps 1 and 2.

**NOTE** While Compare is active, you cannot make edits to the Voice.

## Storing the created Voice

#### 1 Press the [STORE] button to call up the Voice Store window.



#### 2 Set the destination for storing the Voice.

Select the destination User Bank (USR 1 – 4 for the Normal Voice, UDR for the Drum Voice) and the Voice number to be stored by using the data dial, [INC/YES] and [DEC/NO] buttons. You can also use the [USER 1] – [USER 4], [USER DR], Group [A] – [H], and Number [1] – [16] buttons to specify the destination.

#### 3 Press the [ENTER] button. (The display prompts you for confirmation.)

To cancel the Store operation, press the [DEC/NO] button.

#### 4 Press the [INC/YES] button to execute the Store operation.

After the Voice has been stored, a “Completed” message appears and operation returns to the Voice Play display. In this condition, the just stored Voice is selected as shown in the display, letting you instantly play the just edited Voice.

#### NOTICE

When you execute the Store operation, the settings for the destination memory will be overwritten. Important data should always be backed up to a separate USB storage device. For detailed instructions on saving, see page 241.

**NOTE** Keep in mind that the destination of “Store” is internal memory (Flash ROM) whereas the destination of “Save” is external memory such as a USB storage device.

# Common Edit parameters

[VOICE] → Normal Voice selection → [EDIT] → [COMMON EDIT]

Common Edit lets you edit the parameters common to all Elements of the selected Normal Voice.

## About the asterisk (\*) marks

For users who are new to Voice editing and may be confused by the large amount of parameters, the most basic and easy-to-understand parameters are conveniently marked with asterisks. If you are just starting out with Voice editing, try these parameters first.

## General settings for the selected Voice—[F1] General

### Naming the edited Voice—[SF1] Name



#### 1 Name

Enters the desired name for the Voice. The Voice name can contain up to 20 characters.

You can call up the character list by pressing the [SF6] CHAR button, then select the desired one from the list. For detailed instructions on naming, refer to “Basic Operation” on page 37.

#### 2 Main Category 1

#### 3 Sub Category 1

#### 4 Main Category 2

#### 5 Sub Category 2

Determines the two Main Categories and their Sub Categories to which the Voice belongs respectively. “Category” can be used as a keyword representing the characteristic of the Voice. The appropriate setting makes it easy to find the desired Voice from a variety of Voices. There are 16 Main Categories which indicate types of instruments. There are up to five Sub Categories for each Main Category, indicating more detailed types of instruments.

**Settings:** See the following list.

Main Category		Sub Category				
Acoustic Piano	Pn	Acoustic	Layer	Modern	Vintage	Arpeggio
Keyboard	Kb	Electric Piano	FM Piano	Clavi	Synth	Arpeggio
Organ	Or	Tone Wheel	Combo	Pipe	Synth	Arpeggio
Guitar	Gt	Acoustic	Electric Clean	Electric Distortion	Synth	Arpeggio
Bass	Bs	Acoustic	Electric	Synth	Arpeggio	—
Strings	St	Solo	Ensemble	Pizzicato	Synth	Arpeggio
Brass	Br	Solo	Brass Ensemble	Orchestra	Synth	Arpeggio
Sax / Woodwind	SW	Saxophone	Flute	Woodwind	Reed / Pipe	Arpeggio
Synth Lead	Ld	Analog	Digital	Hip Hop	Dance	Arpeggio
Synth Pad/Choir	Pd	Analog	Warm	Bright	Choir	Arpeggio
Synth Comp	Sc	Analog	Digital	Fade	Hook	Arpeggio
Chromatic Percussion	Cp	Mallet Percussion	Bell	Synth Bell	Pitched Drum	Arpeggio
Drum / Percussion	Dr	Drums	Percussion	Synth	Arpeggio	—
Sound Effect	Se	Moving	Ambient	Nature	Sci-Fi	Arpeggio
Musical Effect	Me	Moving	Ambient	Sweep	Hit	Arpeggio
Ethnic	Et	Bowed	Plucked	Struck	Blown	Arpeggio

**NOTE** You can call up the list by pressing the [SF6] LIST button then select the desired one from the list. For details, see page 37.

### Play Mode Settings such as Micro Tuning and Mono/Poly—[SF2] Play Mode

From this display, you can make various settings such as Mono or Poly, Pitch, Portamento, and Micro Tuning.



#### 1 Volume\*

Determines the output level of the Voice. Set this parameter to adjust the balance between the current Voice and other Voices.

**Settings:** 0 – 127

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

Reference

## 2 Pan\*

Determines the stereo pan position of the Voice. You can also adjust this parameter using the PAN knob on the front panel.

**Settings:** L63 (far left) – C (center) – R63 (far right)

**NOTE** Note that this Voice Pan parameter may have little or no audible effect if the Pan for a specific element is set to the left position and the Pan for another element is set to the right position.

## 3 Note Shift\*

Determines the transpose setting for the amount (in semitones) by which the pitch is raised or lowered.

**Settings:** -24 – +0 – 24

## 4 PB Range Upper (Pitch Bend Range Upper)\*

## 5 PB Range Lower (Pitch Bend Range Lower)\*

Determines the maximum Pitch Bend range in semitones. Setting the Upper parameter to +12 would result in a maximum pitch rise of one octave when the Pitch Bend wheel is moved upwards. On the other hand, the Lower setting of -12 would result in the pitch being lowered up to a maximum of one octave (12 semitones) when the Pitch Bend wheel is moved downwards.

**Settings:** -48 semi – +0 semi – +24 semi

## 6 Bank (Micro Tuning Bank)

Determines the Micro Tuning Bank.

**Settings:** PRE, USR

**PRE (Preset)**

Contains the 13 preset Micro Tuning types.

**USR (User)**

Contains your original Micro Tuning types created in the Micro Tuning display (page 225) of the Utility mode.

## 7 Tuning Number

Determines the Micro Tuning number. The Preset Bank provides 13 types including the most common “equal temperament.”

**Settings:**

Preset Bank: 1 – 13 (See the Micro Tuning list below.)

User Bank: 1 – 8

## 8 Tuning Root

Sets the base note for each scale. For some scales this setting may not be necessary.

**Settings:** C – B

### What is Micro Tuning?

This function lets you change the keyboard scale from normal tuning (equal temperament) to one of a variety of special scales. You can determine the scale type for each voice by simply selecting a Tuning number. You can also use original Micro Tuning types that you’ve created in the Micro Tuning display (page 225) of the Utility mode.

## Micro Tuning List

Micro Tuning No.	Type	Micro Tuning Root	Comments
1	Equal	—	The “compromise” tuning used for most of the last 200 years of Western music, and found on most electronic keyboards. Each half step is exactly 1/12 of an octave, and music can be played in any key with equal ease. However, none of the intervals are perfectly in tune.
2	PureMajor	C – B	This tuning is designed so that most of the intervals (especially the major third and perfect fifth) in the major scale are pure. This means that other intervals will be correspondingly out of tune. You need to specify the key (C – B) you will be playing in.
3	PureMinor	C – B	The same as Pure Major, but designed for the minor scale.
4	Werckmeister	C – B	Andreas Werckmeister, a contemporary of Bach, designed this tuning so that keyboard instruments could be played in any key. Each key has a unique character.
5	Kirnberger	C – B	Johann Philipp Kirnberger, an 18th century composer, created this tempered scale to allow performances in any key.
6	Vallot&Yng	C – B	Francescantonio Vallotti and Thomas Young (both mid-1700s) devised this adjustment to the Pythagorean tuning, in which the first six fifths are lowered by the same amount.
7	1/4 Shift	—	This is the normal equal tempered scale shifted up 50 cents.
8	1/4 tone	—	Twenty-four equally spaced notes per octave. (Play twenty-four notes to move one octave.)
9	1/8 tone	—	Forty-eight equally spaced notes per octave. (Play forty-eight notes to move one octave.)
10	Indian	—	Usually observed in Indian music (white keys only).
11	Arabic 1	C – B	Usually observed in Arabic music.
12	Arabic 2		
13	Arabic 3		

## 9 Mono/Poly\*

Selects monophonic or polyphonic.

**Settings:** mono, poly

**mono**

When set to “mono,” the selected Voice is played back monophonically (only a single note is played back simultaneously). For many instrument sounds (such as bass and synth lead), this allows a more natural and smooth sounding legato performance than when this parameter is set to “poly.”

**poly**

When set to “poly,” the selected Voice is played back polyphonically (multiple notes can be played back simultaneously or a chord is played back).

**10 Key Assign Mode**

When this is set to “single,” double playback of the same note is prevented. This is useful when two or more instances of the same note are received nearly simultaneously, or without a corresponding note off message. To allow playback of each instance of the same note, set this to “multi.”

**Settings:** single, multi

**single**

When this is set to “single” and double playback of the same note are transmitted to the internal tone generator, the first note will be stopped then the next note will be sounded.

**multi**

When this is set to “multi” and double playback of the same note are transmitted to the internal tone generator, all the notes are sounded simultaneously.

**11 Portamento Switch\***

Determines whether Portamento is applied to the current Voice or not.

**Settings:** on, off

**12 Portamento Time\***

Determines the pitch transition time when Portamento is applied. The effect of the parameter differs depending on the settings of the Portamento Time Mode (14). Higher values result in a longer pitch change time.

**Settings:** 0 – 127

**13 Portamento Mode**

Determines how Portamento is applied to your keyboard performance.

**Settings:** fingered, fulltime

**fingered**

Portamento is only applied when you play legato (playing the next note before releasing the previous one).

**fulltime**

Portamento is applied to all notes.

**14 Portamento Time Mode**

Determines how the pitch changes in time.

**Settings:** rate1, time1, rate2, time2

**rate1**

Pitch changes at the specified rate.

**time1**

Pitch changes in the specified time.

**rate2**

Pitch changes at the specified rate within an octave.

**time2**

Pitch changes in the specified time within an octave.

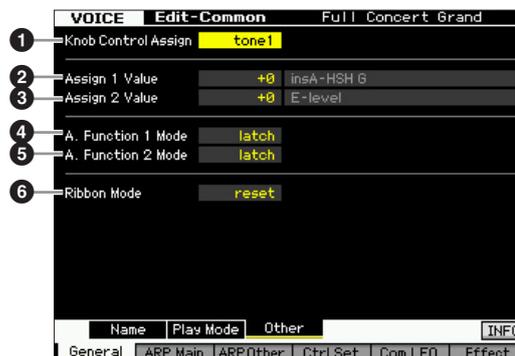
**15 Portamento Legato Slope**

When the Mono/Poly is set to “mono,” legato playing may produce an unnatural attack depending on the waveform assigned to the selected Voice. To solve such a problem, you can use this parameter to adjust the attack of the Voice. Normally, this should be set to a low value for waveforms with short attack times, and should be set to a high value for waveforms with long attack times.

**Settings:** 0 – 7

**Other settings—[SF3] Other**

From this display, you can set the control functions for the Knobs, and the up/down range for the Pitch Bend wheel.

**1 Knob Control Assign**

Determines which lamp among the TONE 1, TONE 2, and ARP FX is turned on when selecting a Voice. This setting can be stored for each Voice.

**Settings:** tone1, tone2, ARP FX

**2 Assign 1 Value****3 Assign 2 Value**

Indicates the level of the Knobs printed “ASSIGN 1” and “ASSIGN 2” at the time at which the Voice is selected with the TONE 1 lamp turned on. The functions assigned to the Knobs are indicated at right of the values respectively.

**Settings:** -64 – +0 – +63

**NOTE** The functions assigned to the ASSIGN 1/2 Knobs can be set in the Controller Set display (page 61).

**4 A. Function 1 Mode****(Assignable Function 1 Mode)****5 A. Function 2 Mode****(Assignable Function 2 Mode)**

Determines whether the ASSIGNABLE FUNCTION [1] and [2] buttons functions as a latch type or momentary type. When set to “latch,” pressing the button alternates the lamp status between on and off. When set to “momentary,” pressing/holding the button turns the lamp on and releasing the button turns the lamp off.

**Settings:** momentary, latch

**6 Ribbon Mode (Ribbon Controller mode)**

Determines how the Ribbon Controller responds when released. When set to reset, releasing your finger from the Ribbon Controller automatically returns the value to the center. When set to hold, releasing your finger from the Ribbon Controller maintains the value at the last point of contact.

**Settings:** hold, reset

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

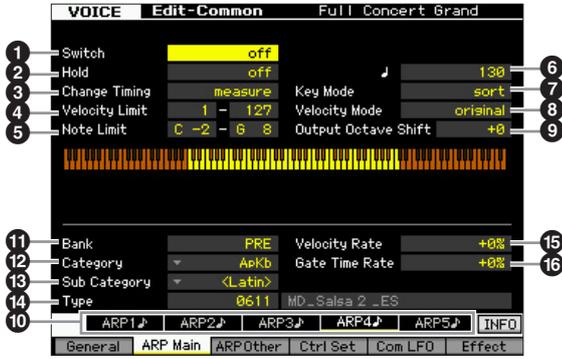
Utility mode

File mode

Reference

## Arpeggio settings—[F2] ARP Main (Arpeggio Main)

This display determines the basic settings of the Arpeggio. Keep in mind that parameters Bank (11) through Gate Time Rate Offset (16) have five settings which can be edited in each of the [SF1] ARP1 through [SF5] ARP5 displays. For details about Arpeggio, see page 15.



**NOTE** Depending on the selected parameter, the KBD icon appears on the tab corresponding to the [SF6] button. In this condition, you can enter the note number or velocity by pressing the appropriate note on the keyboard while holding the [SF6] KBD button. For details, see page 37.

### 1 Switch

Determines whether Arpeggio is on or off. When calling up a Voice for which the Common Switch is set to on, the [ARPEGGIO ON/OFF] button on the panel will be turned on automatically.

**Settings:** on, off

### 2 Hold\*

When this is set to “on,” the Arpeggio cycles automatically, even if you release your fingers from the keys.

**Settings:** sync-off (see below), off, on

#### sync-off

When set to “sync-off,” the Arpeggio playback continues to run silently, even when you release the keys. Pressing any key turns the Arpeggio playback on again, and the Arpeggio is heard from the point in the cycle where playback is resumed.

### 3 Change Timing\*

Determines the actual timing at which the Arpeggio type is switched when you select another type during Arpeggio playback. When set to “realtime,” the Arpeggio type is switched immediately. When set to “measure,” the Arpeggio type is switched at the top of the next measure.

**Settings:** realtime, measure

### 4 Velocity Limit

Determines the lowest and highest velocity which can trigger the Arpeggio playback. This lets you set the velocity range with which you press the note to trigger the Arpeggio playback. You can also create separate low and high trigger ranges for the Arpeggio playback, with a velocity “hole” in the middle, by specifying the maximum value first. For example, setting a Velocity Limit of 93 – 34 lets you play

the Arpeggio from two separate velocity ranges: soft (1 – 34) and hard (93 – 127). Notes played at middle velocities between 35 and 92 do not play the Arpeggio.

**Settings:** 001 – 127

### 5 Note Limit

Determines the lowest and highest notes in the Arpeggio’s note range. Notes played in this range trigger the Arpeggio. For example, setting a Note Limit of “C5 – C4” lets you trigger the Arpeggio by playing notes in the two ranges of C -2 to C4 and C5 to G8; notes played between C4 and C5 have no effect on the Arpeggio.

**Settings:** C -2 – G8

**NOTE** Please keep in mind that no sound is produced when the Key Mode is set to “sort” or “thru” and notes are played outside the Note Limit setting here.

### 6 Tempo\*

Determines the Arpeggio Tempo. This parameter can be changed via the Knob directly.

**Settings:** 5 – 300

**NOTE** If you are using this instrument with an external sequencer, MIDI computer, or other MIDI device, and you want to synchronize it to that device, set the MIDI sync (5) parameter in the MIDI display (page 228) of the Utility mode to “MIDI” or “auto.” In this case, the Tempo parameter here indicates “MIDI” or “auto” and cannot be changed.

### 7 Key Mode

Determines how the Arpeggio plays back when playing the keyboard.

**Settings:** sort, thru, direct, sort+direct, thru+direct

#### sort

When you play specific notes (for example, the notes of a chord), the same sequence plays, no matter what order you play the notes.

#### thru

When you play specific notes (for example, the notes of a chord), the resulting sequence differs depending on the order of the notes.

#### direct

Note events of the Arpeggio sequence do not play; only the notes you play on the keyboard are heard. When the Arpeggio plays back, the events such as Pan and Brightness are applied to the sound of your keyboard performance. Use this setting when the Arpeggio types includes non-note data or when the Category type “Ctrl” is selected.

#### sort+direct

The Arpeggio is played back according to the “sort” setting here, and the note pressed is also sounded.

#### thru+direct

The Arpeggio is played back according to the “thru” setting here, and the note pressed is also sounded.

**NOTE** Some Arpeggio types belonging to the “Cntr” Category may not have note events (page 18). When such an Arpeggio type is selected and the Key Mode is set to “sort” or “thru,” no sound is produced even if you press a note on the keyboard.

### 8 Velocity Mode

Adjusts the velocity of the Arpeggio notes.

**Settings:** original, thru

original

The Arpeggio plays back at the preset velocities included in the Arpeggio sequence data.

thru

The Arpeggio plays back according to the velocity of your playing. For example, if you play the notes strongly, the playback volume of the Arpeggio increases.

### 9 Output Octave Shift

Specifies the maximum Arpeggio range in octaves.

**Settings:** -10 – +10

### 10 [SF1] ARP1 – [SF5] ARP5 (Arpeggio 1 – 5) buttons

The six parameters Bank (11) through Gate Time Rate Offset (16) at the lower half part of the display, can be edited in each of the [SF1] ARP1 through [SF5] ARP5 displays. You can set the parameters in the lower half of the display for each of the five Arpeggio settings by pressing one of the [SF1] – [SF5] buttons. The 8th note icon shown in the tab menu indicates that any Arpeggio Type (other than “off”) is selected in the display corresponding to the Sub Function button.

**Settings:** [SF1] – [SF5] (Sub Function) buttons

### 11 Bank

Determines the Arpeggio Bank containing the desired Arpeggio type. Select “PRE” if you wish to select a preset Arpeggio Type. Select “USER” if you wish to select an Arpeggio Type you originally created and stored.

**Settings:** PRE, USR

**NOTE** For detailed instructions on creating your original Arpeggio type, see page 20.

### 12 Category

### 13 Sub Category

You can select the Category and its Sub Category including your desired Arpeggio Type. This parameter is available when “PRE” is selected as the Bank.

**Settings:** Refer to the Arpeggio Category List on page 15.

**NOTE** You can call up the list by pressing the [SF6] LIST button then select the desired one from the list. For details, see page 37.

### 14 Type

Determines the desired Arpeggio Type number from the specified Category. The name of the selected Arpeggio Type is shown at right of the specified number on the display. Refer to the Arpeggio Type List in Data List.

**NOTE** For details about how to use the Arpeggio Type List, see page 16.

### 15 Velocity Rate

Determines the offset value by which the Arpeggio notes will be shifted from their original velocities. If the resultant velocity value is less than zero it will be set to 1, and if the resultant velocity is greater than 128 it will be set to 127. This parameter can be changed via the Knob directly.

**Settings:** -100% – +0% – +100%

### 16 Gate Time Rate

Determines the Gate Time (length) of the Arpeggio notes. The Gate Time cannot be decreased beyond its normal minimum of 1; any values outside that range will automatically be limited to the minimum. This parameter can be changed via the Knob directly.

**Settings:** -100% – +0% – +100%

## Arpeggio settings—[F3] ARP Other (Arpeggio Other)

By changing the timing and velocity of the notes, you can change the rhythmic “feel” of the Arpeggio playback.



### 1 Unit Multiply

Adjusts the Arpeggio playback time based on tempo. By using this parameter, you can create a different Arpeggio type from the original one. For example, if you set a value of 200%, the playback time will be doubled (tempo is halved). On the other hand, if you set a value of 50%, the playback time will be halved and the tempo doubled. Normal playback time is 100%. This parameter can be changed via the Knob directly.

**Settings:** 50%, 66%, 75%, 100%, 133%, 150%, 200%

### 2 Quantize Value\*

Determines to what beats the note data in the Song will be aligned, or determines to what beats in the Song the swing is applied.

This parameter can be changed via the Knob directly.

**Settings:** ♩ 60 (32nd note), ♪ 80 (16th note triplet), ♪ 120 (16th note), ♪ 160 (8th note triplet), ♪ 240 (8th note), ♪ 320 (1/4 note triplet), ♪ 480 (1/4 note)

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Reference  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

**3 Quantize Strength**

Sets the “strength” by which note events are pulled toward the nearest quantize beats. A setting of 100% produces exact timing set via the Quantize Value parameter above. A setting of 0% results in no quantization. A setting of 50% results in the note events being pulled halfway between 0% and 100%.

This parameter can be changed via the Knob directly.

**Settings:** 0% – 100%

**4 Swing\***

Delays notes on even-numbered beats (backbeats) to produce a swing feel. Settings above 1 delay the Arpeggio notes, whereas settings below 1 advance them. A setting of 0 produces exact timing set via the Quantize Value, resulting in no swing. Judicious use of this setting lets you create swing rhythms and triplet feels, such as shuffle and bounce.

This parameter can be changed via the Knob directly.

**Settings:** -120 – +120

**5 Velocity Rate**

Determines how much the velocity of the Arpeggio playback is offset from the original value. For example, a setting of 100% means the original velocities are used. Settings below 100% will reduce the velocities of the Arpeggio notes, whereas settings above 100% will increase the velocities. If the resultant velocity value is less than zero it will be set to 1, and if the resultant velocity is greater than 128 it will be set to 127.

**Settings:** 0 – 200%

**6 Gate Time Rate**

Determines how much the Gate Time (length) of the Arpeggio notes is offset from the original value. A setting of 100% means the original gate times are used. Settings below 100% will shorten the gate times of the Arpeggio notes, whereas settings above 100% will lengthen them. The Gate Time cannot be decreased beyond its normal minimum of 1; any values outside that range will automatically be limited to the minimum.

**Settings:** 0 – 200%

**7 Octave Range**

Specifies the maximum Arpeggio range in octaves. Positive value settings increase the octave range of the Arpeggio playback upward, whereas negative value settings increase it downward. This parameter can be changed via the Knob directly.

**Settings:** -3 – +0 – +3

**8 Loop**

When this is set to “on,” the Arpeggio cycles while notes are held. When this is set to “off,” the Arpeggio plays only once even if notes are held.

**Settings:** off, on

**9 Trigger Mode**

When this is set to “gate,” pressing the note starts Arpeggio playback and releasing the note stops it. When this is set to “toggle,” pressing the note starts/stops Arpeggio playback and releasing the note does not affect Arpeggio playback. Normally, this parameter should be set to “gate.”

**Settings:** gate, toggle

**NOTE** The Trigger Mode “toggle” setting overcomes the Hold “on” setting in the Arpeggio Main display (page 58). In other words, even when the Hold parameter is set to “on,” pressing the note start/stops Arpeggio playback when the Trigger Mode is set to “toggle.”

**10 Accent Vel Threshold (Accent Velocity Threshold)**

Some Arpeggio types include special sequence data called “Accent Phrase,” which will be played back only when the velocities higher than a specified value are received. This parameter determines the minimum velocity that will trigger the Accent Phrase.

**Settings:** off, 1 – 127

**11 Accent Start Quantize**

Determines the start timing of the Accent Phrase when the Velocity specified in Accent Vel Threshold above is received. When set to off, the Accent Phrase starts as soon as the Velocity is received. When set to on, the Accent Phrase starts on the beat specified for each Arpeggio type after the Velocity is received.

**Settings:** off, on

**12 Random SFX**

Some Arpeggio types feature the Random SFX function which will trigger the special sound such as fret noise of the guitar when the note is released. This parameter determines whether the Random SFX is active or not.

**Settings:** off, on

**13 Random SFX Velocity Offset**

Determines the offset value by which the Random SFX notes will be shifted from their original velocities. If the resultant velocity value is less than zero it will be set to 1, and if the resultant velocity is greater than 128 it will be set to 127.

**Settings:** -64 – +0 – +63

**14 Random SFX Key On Control**

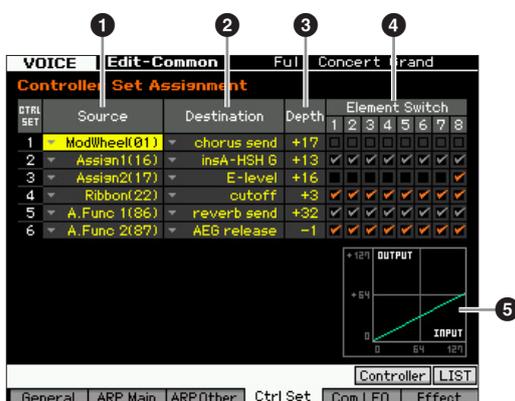
When this is set to “on,” the Random SFX special sound is played with the preprogrammed velocity. When this is set to “off,” the Random SFX special sound is played with the velocity generated when the note is pressed.

**Settings:** off, on

## Controller settings—[F4] Ctrl Set (Controller Set)

The controllers such as knobs on the front panel can be used to change and adjust a variety of parameters for each Voice—in real time, and simultaneously. For example, keyboard aftertouch can be used to control vibrato and the Modulation Wheel could be used to control tonal brightness.

The function settings for all the controllers are referred to as a “Controller Set,” and up to six Controller Sets can be created for each Voice. The controller is referred to as Source, and the controlled function is referred to as Destination. From this display, you can determine the Controller Sets.



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details, see page 37.

### 1 Source\*

Determines which panel controller is to be assigned and used for the selected Set. You can also assign multiple functions to a controller. You can set this parameter by operating the desired controller while holding the [SF5] Controller button.

#### Settings:

##### PitchBend

Indicates the built-in Pitch Bend wheel.

##### ModWheel

Indicates the built-in Modulation wheel.

##### AfterTch (Aftertouch)

Indicates the event generated when pressure is applied to a key after the note is played.

##### FootCtrl1 (Foot Controller2)

##### FootCtrl2 (Foot Controller2)

Indicates the Foot Controller connected to each of the FOOT CONTROLLER 1 and 2 jacks on the rear panel.

##### FootSw (Footswitch)

Indicates the Footswitch connected to the FOOT SWITCH ASSIGNABLE jack on the rear panel.

##### Ribbon

Indicates the built-in Ribbon Controller.

##### Breath

Indicates the external controller which sends the control change number assigned to the Breath Controller in the Utility mode (page 230) to the MOTIF XF via MIDI.

### Assign1

#### Assign2

Indicates the Knobs printed “ASSIGN 1” and “ASSIGN 2” with the TONE 1 lamp turned on.

#### A. Func 1

#### A. Func 2

Indicates the built-in ASSIGNABLE FUNCTION [1] and [2] buttons.

**NOTE** You can determine the degree to which the Pitch Bend wheel affects the Destination parameter (below) by setting the Pitch Bend Range Upper (4) and Pitch Bend Range Lower (5) in the Play Mode display (page 55).

### 2 Destination\*

Determines the parameter that is controlled by the Source controller (above). You can select a parameter for each controller from the 67 parameters, such as volume, pitch and LFO depth.

**Settings:** Refer to the Control List in the separate Data List.

**NOTE** Regarding “Insertion Effect A Parameter 1 – 16,” “Insertion Effect B Parameter 1 – 16” and “Insertion Effect L Parameter 1 – 32” described in the Control List, the actual parameter names of the selected Effect type are shown on the display. If one of these names is shown, no function is assigned to that parameter.

### Setting examples of the Destination

To control the volume:	Volume
To apply vibrato to the Voice:	Common LFO Depth 1 – 3 (C-LFO dph1 – 3) *1
To change the pitch:	Element Pitch (coarse tune) *2
To control the brightness of the Voice:	Element Filter Frequency (cutoff) *2
To change the speed of the Rotary Speaker:	Insertion A/B Parameter 1 (insA-prm1/insB-prm1) *3
To apply a wah pedal to the Voice:	Insertion A/B Parameter 1 (insA-prm1/insB-prm1) *4

Concerning \*1 – \*4, the following settings are necessary in addition to the above setting.

- \*1 [F4] Com LFO → [SF1] Wave → Play Mode = loop  
[F4] Com LFO → [SF2] Set → Control Dest = P mod
- \*2 [F3] Ctrl Set → Element Switch = on
- \*3 [F6] Effect → Insertion A/B Type = Rotary Speaker  
[F6] Effect → Element Out = insA/insB
- \*4 [F6] Effect → Insertion A/B Type = Wah effect  
[F6] Effect → Element Out = insA/insB

### 3 Depth\*

Determines the degree to which the Source controller affects the Destination parameter. For negative values, the controller operation is reversed; maximum controller settings produce minimum parameter changes.

**Settings:** -64 – +0 – +63

### 4 Element Switch\*

Determines whether or not the selected controller affects each individual element. This parameter is disabled when the Destination (2) described above is set to a parameter unrelated to the Voice Elements.

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

Reference

**5 Graph** (Indication only)

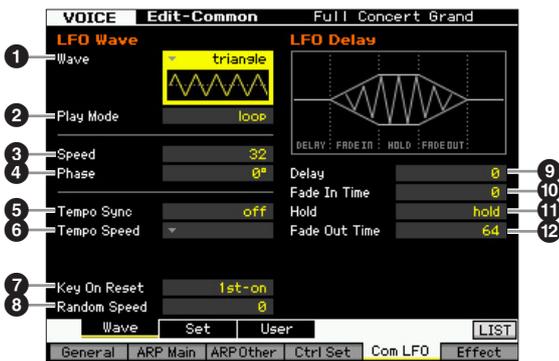
The horizontal axis indicates the value generated via the Source of the selected Set, whereas the vertical axis indicates the degree to which the Destination parameter is affected.

**Modulating the Voice—[F5] Com LFO (Common LFO)**

Determines how the vibrato, tremolo and wah effect are produced by using the LFO (Low Frequency Oscillator). From the following displays, you can set the basic LFO parameters common to all elements of the Voice.

**LFO Wave settings—[SF1] Wave (Common LFO Wave)**

This display contains a variety of LFO parameters, including LFO wave type, speed and effects such as LFO delay or fade in/out.



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details, see page 37.

**1 Wave\***

Selects the Wave and determines how the LFO waveform vibrates. The illustration of the selected wave is shown on the display.

**Settings:** triangle, triangle+, saw up, saw down, squ1/4, squ1/3, square, squ2/3, squ3/4, trapezoid, S/H1, S/H2, user

user

You can create your original LFO wave by selecting this. The LFO wave can be created in the Common LFO User display (page 62).

**2 Play Mode**

Determines whether the LFO cycles repeatedly (loop) or only once (one shot).

**Settings:** loop, one shot

**3 Speed\***

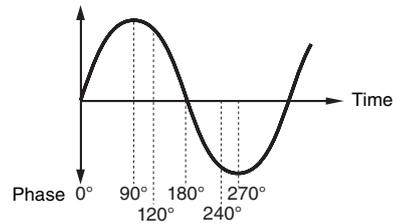
Determines the speed of the LFO Wave. The higher the value, the faster the speed.

**Settings:** 0 – 63

**4 Phase**

Determines the starting phase point for the LFO Wave when it is reset.

**Settings:** 0°, 90°, 120°, 180°, 240°, 270°



**5 Tempo Sync**

Determines whether or not the LFO speed is synchronized to the tempo of the Arpeggio or sequencer (Song or Pattern).

**Settings:** off (not synchronized), on (synchronized)

**NOTE** When this parameter is set to “on” and the MIDI sync parameter in the MIDI display of the Utility mode (page 228) is set to “MIDI,” the LFO speed is synchronized with the external clock.

**6 Tempo Speed**

This parameter is available only when Tempo Sync above has been set to “on.” It allows you to make detailed note value settings that determine how the LFO pulses in sync with the Arpeggio or sequencer.

**Settings:** 16th, 8th/3 (eighth-note triplets), 16th. (dotted sixteenth note), 8th (eighth note), 4th/3 (quarter-note triplets), 8th. (dotted 8th note), 4th (quarter notes), 2nd/3 (half-note triplets), 4th. (dotted quarter notes), 2nd (half notes), whole/3 (whole-note triplets), 2nd. (dotted half note), 4thx4 (quarter-note quadruplets; four quarter notes to the beat), 4thx5 (quarter-note quintuplets; five quarter notes to the beat), 4thx6 (quarter-note sextuplets; six quarter notes to the beat), 4thx7 (quarter-note septuplets; seven quarter notes to the beat), 4thx8 (quarter-note octuplets; eight quarter notes to the beat), 4thx16 (sixteen quarter notes to the beat), 4thx32 (32 quarter notes to the beat), 4thx64 (64 quarter notes to the beat)

**NOTE** The note type setting above is synchronized with the tempo of the Arpeggio/Song/Pattern playback.

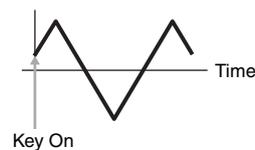
**7 Key On Reset**

Determines whether or not the LFO is reset each time a note is pressed. The following three settings are available.

**Settings:** off, each-on, 1st-on

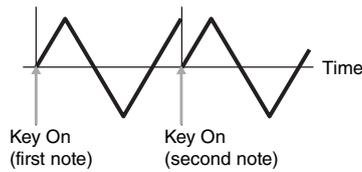
off

The LFO cycles freely with no key synchronization. Pressing a key starts the LFO wave at whatever phase the LFO happens to be at that point.



**each-on**

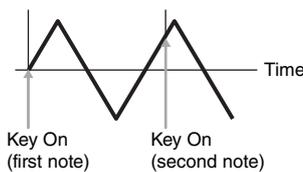
The LFO resets with each note you play and starts a waveform at the phase specified by the Phase parameter (above).



**NOTE** When the Wave is set to "S/H1" or "S/H2," the Play Mode is set to "one shot," and the Key On Reset is set to "each-on," the initial phase differs each time the note is pressed. With this setting, realistic tonal variations can be produced when hitting the drum repeatedly.

**1st-on**

The LFO resets with each note you play and starts a waveform at the phase specified by the Phase parameter (above). If you play a second note while the first is being held, the LFO continues cycling according to the same phase as triggered by the first note. In other words, the LFO only resets if the first note is released before the second is played.



**NOTE** The starting phase is determined by the Phase parameter (4) although the starting phase is shown as 0 in the illustration.

**8 Random Speed**

Determines the degree to which the LFO speed changes at random. A setting of "0" results in the original speed. Higher values result in a larger degree of speed change. This parameter cannot be set when the Tempo Sync (5) is set to on.

**Settings:** 0 – 127

**9 Delay\***

Determines the delay time between the moment you press note on the keyboard and the moment the LFO comes into effect. A higher value results in a longer delay time.

**Settings:** 0 – 127

**10 Fade In Time**

Determines the amount of time for the LFO effect to fade in after the Delay time has elapsed. A higher value results in a slower fade-in. When set to "0," the LFO effect will not fade in and reach the maximum level immediately after the Delay time has elapsed.

**Settings:** 0 – 127

**11 Hold (Hold Time)**

Determines the length of time for which the LFO is held at its maximum level. A higher value results in a longer Hold time. A setting of 127 produces no fade out.

**Settings:** 0 – 126, hold

**12 Fade Out Time**

Determines the amount of time for the LFO effect to fade out (after the Hold time has elapsed). A higher value results in a slower fade-out.

**Settings:** 0 – 127

**LFO Effect Settings—[SF2] Set (Common LFO Set)**

From this display you can select the destination parameter for the LFO (which aspect of the sound the LFO controls), the Elements to be affected by the LFO, and the LFO Depth. Three Destinations can be assigned, and you can choose from several parameters per Destination.



**1 Control Dest (Control Destination)\***

Determines the parameters which are to be controlled (modulated) by the LFO Wave.

**Settings:** insA1 – insA16, insB1 – insB16, insL1 – insL32, A mod, P mod, F mod, reso, pan, LFOspd

insA1 – insA16, insB1 – insB16, insL1 – insL32 (Effect parameters)  
Each parameter of the selected Effect type is modulated cyclically. When one of those parameters is selected, the corresponding parameter name of the selected Effect type is shown at the lower section of the display.

**A mod (Amplitude Modulation Depth)**

A tremolo effect produced by cyclically modulating the volume.

**P mod (Pitch Modulation Depth)**

A vibrato effect produced by cyclically modulating the pitch.

**F mod (Filter Modulation Depth)**

A wah effect produced by cyclically modulating the tonal brightness.

**reso (Resonance)**

A special wah effect produced by cyclically modulating the resonance.

**pan**

An effect produced by cyclically modulating the stereo pan position.

**LFOspd (Element LFO Speed)**

When this is selected, the Common LFO speed cyclically modulates the Element LFO speed.

**2 Control Depth\***

Determines the LFO Wave Depth.

**Settings:** 0 – 127

**3 Element Switch 1 – 8\***

Determines whether or not each Element is to be affected by the LFO.

**Settings:**  (active),  (inactive)

**4 Depth Offset 1 – 8**

Determines the offset values of the Control Depth parameter (above) for the respective Elements. If the resultant Control Depth value is less than zero it will be set

- Voice mode
- Performance mode
- Sampling mode 1
- Sampling mode 2
- Song mode
- Pattern mode
- Mixing mode
- Master mode
- Utility mode
- File mode
- Reference

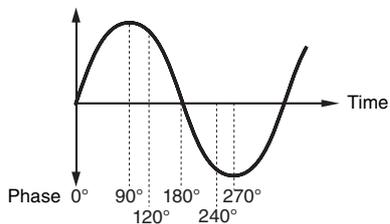
to 0, and if the resultant Control Depth value is greater than 127 it will be set to 127.

**Settings:** 0 – 127

### 5 LFO Phase Offset

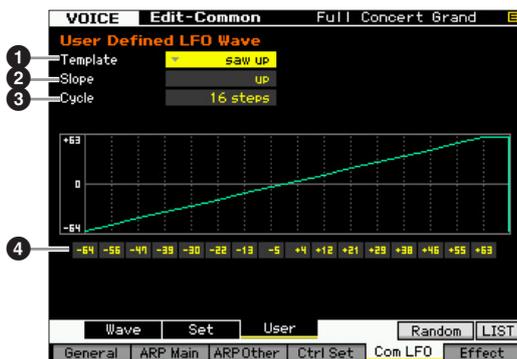
Determines the offset values of the Phase parameter in the [SF1] Wave display for the respective Elements.

**Settings:** 0°, 90°, 120°, 180°, 240°, 270°



## Making your own LFO—[SF3] User (Common LFO User)

From this display you can create your own original LFO wave. You can create a custom LFO wave consisting of up to sixteen steps. The created LFO wave becomes available when the Wave parameter in the Common LFO Wave display is set to “user.”



### 1 Template

You can select a pre-programmed template for the LFO wave.

**Settings:** all -64, all 0, all +63, saw up, saw down, even step, odd step

all -64

Values of all the steps are set to -64.

all 0

Values of all the steps are set to 0.

all +63

Values of all the steps are set to +63.

saw up

Creates a saw shaped upward wave.

saw down

Creates a saw shaped downward wave.

even step

Values of all odd steps are set to +63, and values of all even steps are set to -64.

odd step

Values of all even steps are set to +63, and values of all odd steps are set to -64.

**NOTE** You can call up the list by pressing the [SF6] LIST button then select the desired one from the list. For details, see page 37.

**NOTE** You can use the [SF5] Random button to call up the base wave at random. Each time you press the [SF5] Random button, a different LFO wave appears on the display randomly.

### 2 Slope

Determines the slope or ramp characteristics of the LFO wave.

**Settings:** off, up, down, up&down

off

Creates no slope.

up

Creates an upward slope.

down

Creates a downward slope.

up&down

Creates an upward then downward slope.

### 3 Cycle

Determines the amount of steps for creating the wave.

**Settings:** 2, 3, 4, 6, 8, 12, 16

### 4 Level 1 – 16

Determines the level for each step.

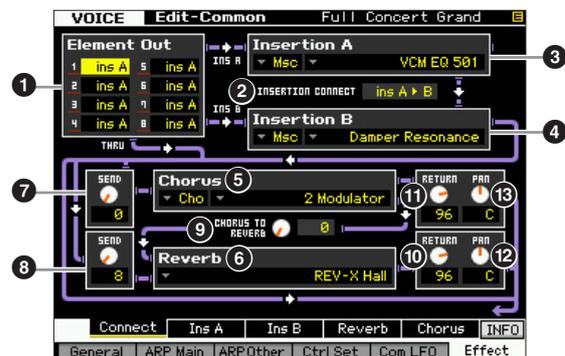
**Settings:** -64 – +63

## Effect settings—[F6] Effect

Determines the Effect connection and values of other parameters for the selected Voice. For details about the structure in the Voice mode, see page 23.

### Effect Connection Settings—[SF1] Connect

This display gives you at-a-glance, overall view of the effect routing and comprehensive control over the effects.



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details, see page 37.

### 1 Element Out 1 – 8\*

Determines which Insertion Effect (A or B) is used to process each individual Element. The “thru” setting lets you bypass the Insertion Effects for the specified element. When INSERTION CONNECT (2) is set to “ins L,” the signal from each Element is output to the Insertion L regardless of the setting here.

**Settings:** thru (through), ins A (Insertion A), ins B (Insertion B)

### 2 INSERTION CONNECT (Insertion Connection)

From this display you can set the effect routing for Insertion Effects A and B. The setting changes are shown on the diagram in the display, giving you a clear picture of how the signal is routed. For details, see page 23.

**Settings:** parallel, ins A ► B, ins B ► A, ins L

#### parallel

Signals processed with the Insertion Effect A and B block will be sent to Master Effect, Master EQ, Reverb and Chorus block.

#### ins A ► B

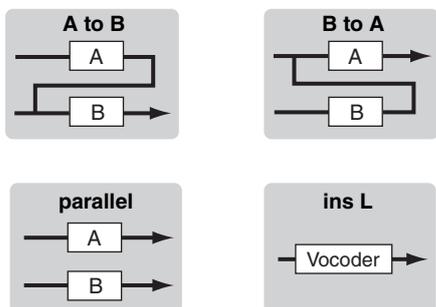
Signals processed with the Insertion Effect A will be sent to the Insertion Effect B and signals processed with the Insertion Effect B is sent to Master Effect, Master EQ, Reverb and Chorus block.

#### ins B ► A

Signals processed with the Insertion Effect B will be sent to the Insertion Effect A and signals processed with the Insertion Effect A is sent to Master Effect, Master EQ, Reverb and Chorus block.

#### ins L

The Insertion Effects A and B are unified, then used as the Vocoder. Signals processed with the Vocoder block will be sent to Master Effect, Master EQ, Reverb and Chorus block.



**NOTE** When “ins L” is selected, “ins L” is shown in the tab menu of the [SF2] button and the tab menu of the [SF3] button disappears.

**NOTE** For detailed instructions on using the Vocoder, see page 66.

**NOTE** When “ins L” is selected, the audio signal will be output from this instrument in mono.

### 3 Insertion A (Insertion A Category/Type)\*

### 4 Insertion B (Insertion B Category/Type)\*

Determines the Effect type for Insertion A and B. From the Category column, you can select one of the Effect Categories, each of which contains similar Effect types. From the Type column, you can select one of the Effect Types listed in the selected Category.

**Settings:** Details about the Effect categories and types are described on page 24.

### 5 Chorus (Chorus Category/Type)\*

Selects a Chorus Effect type after selecting a category. From the Category column, you can select one of the Effect Categories, each of which contains similar Effect types. From the Type column, you can select one of the Effect types listed in the selected Category.

**Settings:** Details about the Effect categories and types are described on page 24.

### 6 Reverb (Reverb Type)\*

Determines the Reverb Effect type. It is not necessary to select a Category because there is only one category in Reverb.

**Settings:** Details about the Effect types are described on page 24.

### 7 Chorus Send\*

Adjusts the chorus send level. The higher the value the deeper the Chorus.

**Settings:** 0 – 127

### 8 Reverb Send\*

Adjusts the reverb send level. The higher the value the deeper the reverb.

**Settings:** 0 – 127

### 9 CHORUS TO REVERB

Determines the Send level of the signal sent from the Chorus Effect to the Reverb Effect. The higher the value, the deeper the Reverb that is applied to the Chorus-processed signal.

**Settings:** 0 – 127

### 10 Reverb Return

Determines the Return level of the Reverb Effect.

**Settings:** 0 – 127

### 11 Chorus Return

Determines the Return level of the Chorus Effect.

**Settings:** 0 – 127

### 12 Reverb Pan

Determines the pan position of the Reverb effect sound.

**Settings:** L63 (far left) – C (center) – R63 (far right)

### 13 Chorus Pan

Determines the pan position of the Chorus effect sound.

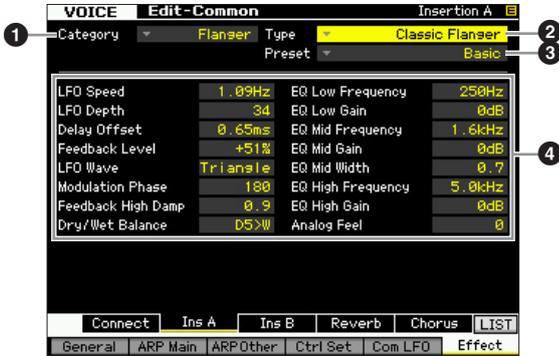
**Settings:** L63 (far left) – C (center) – R63 (far right)

Reference

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

## Effect Parameter settings—[SF2] Ins A, [SF3] Ins B, [SF4] Reverb, [SF5] Chorus

From these displays, you can set the Effect related parameters when the INSERTION CONNECT parameter is set to “parallel” or “ins A ▶ B” or “ins B ▶ A.”



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details, see page 37.

### 1 Category

### 2 Type

From the Category column, you can select one of the Effect Categories each of which contains similar Effect types. From the Type column, you can select one of the Effect Types listed in the selected Category.

**Settings:** Details about the Effect categories and types are described on page 24.

**NOTE** The Category (1) is not shown in the Reverb display.

### 3 Preset

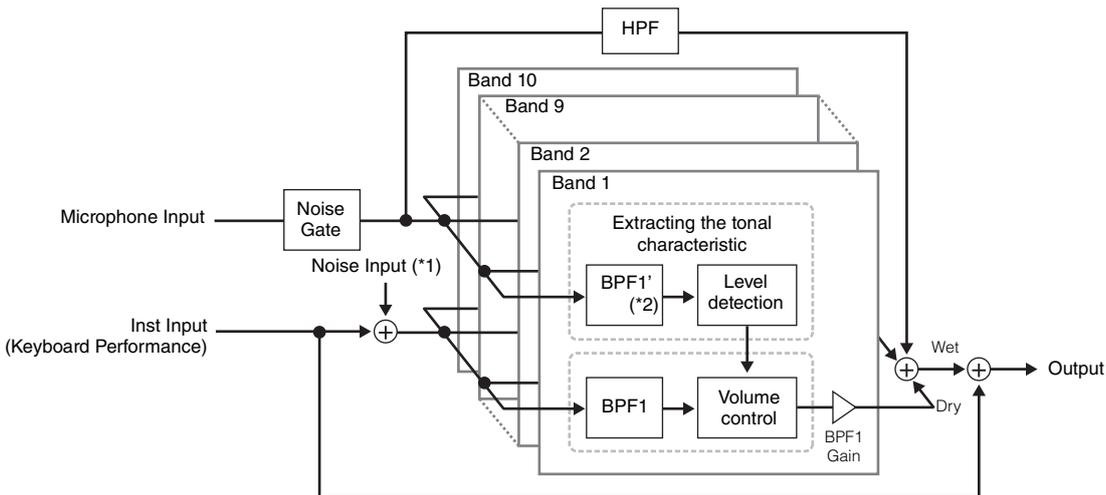
You can set various parameters in order to change how the sound is affected by the selected Effect type. This parameter lets you call up the preprogrammed settings of these effect parameters.

### 4 Effect Parameters

The number of parameters and values available differs depending on the currently selected effect type. Refer to page 27 for details about the Effect parameters. Refer to the separate Data List for information on the parameters for each Effect type.

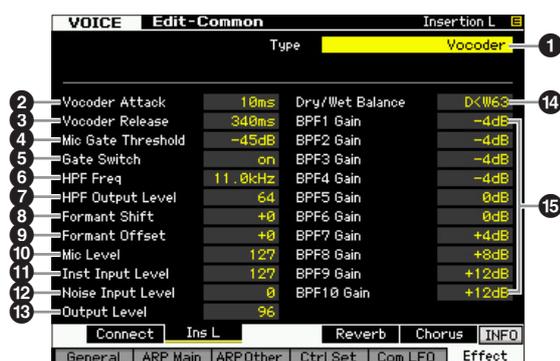
## Effect Parameter Settings—[SF2] Ins L (Insertion Large)

From this display, you can set the Vocoder related parameters. This display called up via the [SF2] button is available only when the INSERTION CONNECT parameter is set to “ins L” in the Connect display (page 64). Vocoder is a distinctive, “robot voice” effect which extracts the characteristic of the microphone sound and adds it to the sound via your keyboard performance. To create this Vocoder effect, you play the keyboard and sing or speak into the microphone at the same time. To use the Vocoder effect, connect a microphone to the A/D INPUT connector on the rear panel, then follow the instructions on page 68.



\*1 The noise generated in the Vocoder unit is used.

\*2 The cutoff frequency of the BPF1' may not be same as the one of the BPF1. This depends on the settings of the Formant Shift and Formant Offset.



### 1 Type

Determines whether or not the Vocoder is applied to the current Voice. When set to “Thru,” the Vocoder is not applied to the Voice.

**Settings:** Thru, Vocoder

### 2 Vocoder Attack

Determines the attack time of the Vocoder sound. The higher the value, the slower the attack.

**Settings:** 1ms – 200ms

### 3 Vocoder Release

Determines the release time of the Vocoder sound. The higher the value, the slower the decay.

**Settings:** 10ms – 3000ms

### 4 Mic Gate Threshold

Determines the threshold level of the noise gate for the microphone sound. If noise interferes with the Vocoder effect, set this parameter to a relatively high value to prevent noise from producing inadvertent, unexpected sounds.

**Settings:** -72dB – -30dB

### 5 Gate Switch

Determines whether or not the microphone sound will be output from the HPF while you release the notes. Normally, set this to “on.”

**Settings:** off, on

off: The microphone sound always will be output. (You can always hear the microphone sound.)

on: The microphone sound will be output only while pressing the note.

### 6 HPF Freq (High Pass Filter Frequency)

Determines the HPF cutoff frequency for the microphone input sound. Setting this to a low value results in a minimally processed input sound—in other words, close to the original. Setting this to higher values emphasizes the higher frequency consonant and sibilant sounds (which make words easier to understand).

**Settings:** thru, 500Hz – 16.0kHz

### 7 HPF Output Level

Determines the level of the microphone sound output from the HPF (High Pass Filter).

**Settings:** 0 – 127

### 8 Formant Shift

Determines the amount (in BPF) by which the cutoff frequency value of the BPFs (for the Inst Input) is shifted. This parameter can be used to adjust the pitch of the Vocoder sound.

**Settings:** -2, -1, +0, +1, +2

### 9 Formant Offset

Adjusts the cutoff frequencies of all BPFs (for the Inst Input) finely. This parameter can be used to adjust the pitch of the Vocoder sound finely.

**Settings:** -63 – +0 – +63

### 10 Mic Level

Determines the microphone sound level, which is to be input to the Vocoder.

**Settings:** 0 – 127

### 11 Inst Input Level

Determines the level of the keyboard performance sound, which is to be input to the Vocoder.

**Settings:** 0 – 127

### 12 Noise Input Level

Determines the noise level which is input to the Vocoder. This can be used to emphasize sibilant and plosive sounds, and make the speech-like characteristics more pronounced.

**Settings:** 0 – 127

### 13 Output Level

Determines the output level of the Vocoder.

**Settings:** 0 – 127

### 14 Dry/Wet Balance

Determines the balance between the dry sound to which the effect is not applied and the wet sound to which the effect is applied. The higher the W setting, the deeper the effect.

**Settings:** D63>W – D=W – D<W63

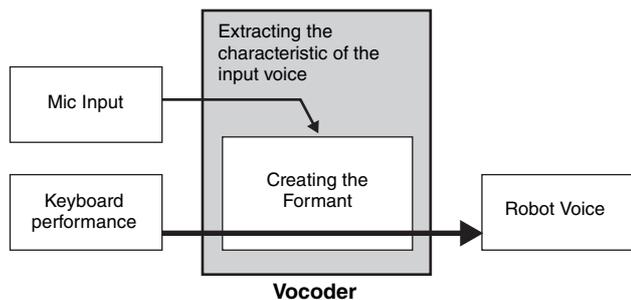
### 15 BPF1 – 10 Gain (Band Pass Filter 1 – 10 Gain)

Determines each output gain of the BPF 1 – 10 for the Inst Input (keyboard performance sound). The BPF1 corresponds to the lowest Formant while the BPF 10 corresponds to the highest Formant.

**Settings:** -18dB – +18dB

## Vocoder structure

The human voice consists of sounds generated from the vocal cords, and filtered by the throat, nose and mouth. These resonant sections have specific frequency characteristics and they function effectively as a filter, creating many formants (harmonic content). The Vocoder effect extracts the filter characteristics of the voice from the microphone input and recreates the vocal formants by the use of multiple band pass filters. The machine-like 'robot' voice is created by passing the pitched sounds of musical instruments (such as a synthesizer sound) through the filters.



## Using the Vocoder effect

After connecting a microphone to the A/D INPUT connector on the rear panel, follow the instructions below to use the Vocoder effect.

### 1 Set the Vocoder related parameters.

In the Voice Play mode, press the [UTILITY] button to enter the Utility mode, press the [F4] button, then press the [SF1] button to call up the Output display (page 226). Set the Output Select to "ins L."

**NOTE** When using the Vocoder in the Performance mode, set the Output Select parameter to "ins L" in the Output display (page 226) of the Performance Edit mode. When using the Vocoder in the Song/Pattern mode, set the Output Select parameter to "ins L" in the Audio In display (page 193) of the Mixing Edit mode.

### 2 Set the Input Gain of the A/D INPUT connector to microphone.

In the Utility mode, press the [F2] button to call up the Input/Output display (page 223), then set the Mic/Line parameter to "mic."

### 3 In the Voice Play mode, select the desired Voice to which the Vocoder is applied.

### 4 Select the Vocoder as the Insertion Effect connection.

In the Voice Play mode, press the [EDIT] button then [COMMON EDIT] button to enter the Voice Common Edit. Press the [SF1] button to call up the Connect display (page 64), set the INSERTION CONNECT parameter to "ins L," then set the Insertion L parameter to "Vocoder."

**NOTE** When the INSERTION CONNECT is set to "ins L," the audio signal will be output from this instrument in mono.

### 5 Set the Vocoder related parameters if necessary.

Input your voice to the microphone while pressing the note(s) to generate the machine-like Vocoder sound. Press the [SF2] button to call up the Insertion L display, then set the related parameters while listening to the Vocoder sound.

### 6 Press the [STORE] button to call up the Store window (page 54) then store the edited Voice.

# Element Edit parameters

[VOICE] → Normal Voice selection → [EDIT] → [1] – [8]

If you wish to edit the sounds that make up a Voice and the basic parameters that determine the sound, such as Oscillator, Pitch, Filter, Amplitude, and EG (Envelope Generator), call up the Element Edit display.

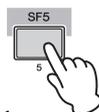
## About the asterisk (\*) marks

For users who are new to Voice editing and may be confused by the large amount of parameters, the most basic and easy-to-understand parameters are conveniently marked with asterisks in this section. If you are just starting out with Voice editing, try these parameters first.

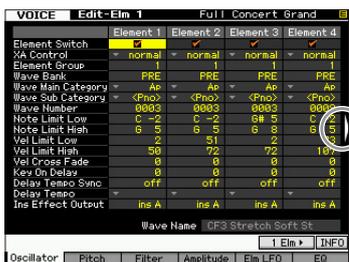
## Selected Element display/ Four-Element display

In the Element Edit mode, you can use two types of display. One type of display lets you edit parameters for the currently selected Element and the other type of display lets you view parameters for four Elements. You can switch between these two types by pressing the [SF5] button. When the display for four Elements is shown, you can switch between the displays for Elements 1 – 4 and 5 – 8 by using the left and right cursor buttons.

The display indicating the settings of the current Element



The display indicating the settings of four Elements



This icon indicates that you can call up the display for another four Elements.

## Setting the Waveform and Note range of the Element—[F1] Oscillator



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details, see page 37.

### 1 Element Switch\*

Determines whether the currently selected Element is on or off. When this is set to off, the currently edited Element will not sound.

**Settings:** off (inactive), on (active)

### 2 XA Control (Expanded Articulation Control)

Expanded Articulation (XA) is a special feature of the MOTIF XF that provides greater performance flexibility and realism (see box on next page). This parameter determines how the XA feature of the Element works. Try setting this parameter referring to the four types of the XA Mode described below. You can realize the desired sound depending on your performance articulation by assigning the same Element Group to the Elements having the same type of the XA mode.

**Settings:** normal, legato, key off sound, wave cycle, wave random, all AF off, AF 1 on, AF 2 on

#### normal

When this is selected, the Element will sound normally each time you press the note.

#### legato

When this is selected and the Mono mode is selected, an alternate Element (different from the one used when XA mode is set to "normal") will be played when you play the keyboard in legato fashion (playing the next note of a single-note line or melody before releasing the previous note).

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

**key off sound**

When this is selected, the Element will sound each time you release the note.

**wave cycle**

When this is selected for multiple Elements, each Element sounds alternately according to its numerical order each time you play a note. (In other words, playing the first note will sound Element 1, the second note Element 2, and so on.)

**wave random**

When this is selected for multiple Elements, each Element will sound randomly each time you press the note.

**all AF off**

When this is selected, the Element will sound when both of the ASSIGNABLE FUNCTION buttons are turned off.

**AF 1 on**

When this is selected, the Element will sound when the ASSIGNABLE FUNCTION [1] button is turned on.

**AF 2 on**

When this is selected, the Element will sound when the ASSIGNABLE FUNCTION [2] button is turned on.

**Expanded Articulation (XA) features**

Expanded Articulation (XA) is a newly designed, sophisticated tone generation system that allows you to more effectively recreate realistic sound and natural performance techniques—such as legato and staccato—often used on acoustic instruments but up to now unavailable or difficult to realize on electronic keyboards. It also provides other unique modes for random and alternate sound changes as you play.

**Realistic legato performance**

Specify an Element or Elements to be sounded when playing legato.

→ Set the XA control parameter for the desired Elements to “legato.”

**Authentic note release sound**

Specify an Element or Elements to be sounded upon releasing a note. For example, this could be used to recreate the characteristic pluck sound on a harpsichord when a note is released.

→ Set the XA control parameter for the desired Elements to “key off sound.”

**Different sounds for each note played**

Specify different Elements to be sounded in order or randomly.

→ Set the XA control parameter for the desired Elements to “wave cycle” or “wave random.”

**Switching among different sounds to recreate the natural performance on an acoustic instrument**

Specify which Elements will be sounded according to the on/off status of the ASSIGNABLE FUNCTION buttons. For example, this could be used on an acoustic guitar Voice to switch between playing normally and playing high harmonics.

→ Set the XA control parameter for the desired Elements to “all AF off,” “AF 1 on,” or “AF 2 on.”

**New sounds and new styles of playing**

The highly versatile functions above can be applied effectively not only to acoustic sounds but also to synthesizer and electronic Voices as well. The XA feature opens up enormous potential for realizing authentic sounds, performing expressively and coming up with creative new styles of playing.

**3 Element Group**

Determines the group of the XA mode so that the Elements of the same group are called up in order or randomly. Assign the same group number to the Elements having the same type of XA mode.

The setting here is not available when the XA mode parameters of all Elements are set to “normal.”

**Settings:** 1 – 8

**4 Wave Bank (Waveform Bank)**

Determines the Waveform Bank assigned to the Element. You can select the Bank from PRE, USR, FL1 and FL2.

PRE (Preset Bank) includes the preset Waveforms while USR (User Bank), FL1 (Bank stored at slot 1 of the optional Flash Memory Expansion Module) and FL2 (Bank stored at slot 2 of the optional Flash Memory Expansion Module) include the User Waveforms created based on the samples recorded in the Sampling mode. FL1 and FL2 are available only when the optional Flash Memory Expansion Module FL512M/FL1024M has been installed.

**Settings:** PRE, USR, FL1, FL2

**NOTE** For details about Waveform, refer to the explanation of the Sampling mode on page 119.

**5 Wave Main Category (Waveform Main Category)\***

**6 Wave Sub Category (Waveform Sub Category)\***

It is easier to find desired Waveforms (7) by setting these parameters before selecting a Waveform number. Preset Waveforms are categorized into Main and Sub. The number of Sub Categories differs depending on each Main Category.

**7 Wave Number (Waveform Number)\***

Determines the Waveform assigned to the Element by selecting the Waveform Category and Number. For a complete list of Waveforms in the Preset Bank, refer to the Waveform List in the separate Data List.

**8 Key On Delay**

Determines the time (delay) between the moment you press a note on the keyboard and the point at which the sound is actually played. The higher the value, the longer the delay time.

**Settings:** 0 – 127

**9 Delay Tempo Sync**

Determines whether or not the Key On Delay above is synchronized to the tempo of the Arpeggio or sequencer (Song or Pattern).

**Settings:** off (not synchronized), on (synchronized)

**10 Delay Tempo**

Determines the timing of the Key On Delay when the Delay Tempo Sync is set to on.

**Settings:** 16th, 8th/3 (eighth-note triplets), 16th. (dotted sixteenth note), 8th (eighth note), 4th/3 (quarter-note triplets), 8th. (dotted 8th note), 4th (quarter notes), 2nd/3 (half-note triplets), 4th. (dotted quarter notes), 2nd (half notes), whole/3 (whole-note triplets), 2nd. (dotted half note), 4thx4 (quarter-note quadruplets; four quarter notes to the beat),

4thx5 (quarter-note quintuplets; five quarter notes to the beat), 4thx6 (quarter-note sextuplets; six quarter notes to the beat), 4thx7 (quarter-note septuplets; seven quarter notes to the beat), 4thx8 (quarter-note octuplets; eight quarter notes to the beat)

### 11 Vel Cross Fade (Velocity Cross Fade)

This determines how gradually the sound of an Element decreases in volume in proportion to the distance of velocity changes outside the Velocity Limit setting (12). A setting of 0 produces no sound outside the Velocity Limit. The higher the value, the more gradual the level decreases. The practical application of this parameter is to create natural-sounding velocity cross fades, in which different Elements (Waveforms) change gradually depending on how strongly or softly you play.

**Settings:** 0 – 127

### 12 Velocity Limit

Determines the minimum and maximum values of the velocity range within which each Element will respond. Each Element will only sound for notes played within its specified velocity range. For example, this lets you have one Element sound when you play softly and have a different one sound when you play strongly. If you specify the maximum value first and the minimum value second, for example “93 to 34,” then the velocity range covered will be “1 to 34” and “93 to 127.”

**Settings:** 1 – 127

### 13 Note Limit

Determines the lowest and highest notes of the keyboard range for each Element. The selected Element will sound only when you play notes within this range. If you specify the highest note first and the lowest note second, for example “C5 to C4,” then the note range covered will be “C -2 to C4” and “C5 to G8.”

**Settings:** C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] INFO button and pressing the desired key. For details, see page 37.

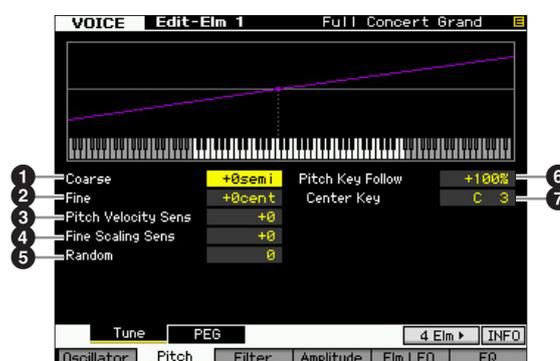
### 14 Ins Effect Output (Insertion Effect Output)

Determines which Insertion Effect (A or B) is used to process each individual element. The “thru” setting lets you bypass the Insertion Effects for the specific key. This parameter is the same as Element Out 1 – 8 on the Connect display (page 64) in Voice Common Edit. Making a setting here automatically changes the setting of that parameter as well. When INSERTION CONNECT is set to “Ins L,” the signal from each Element is output to the Insertion L regardless of the setting here.

**Settings:** thru (through), ins A (Insertion A), ins B (Insertion B)

## Pitch Settings—[F2] Pitch

### Tuning and Pitch Scaling—[SF1] Tune



#### 1 Coarse (Coarse Tuning)

Determines the pitch of each Element in semitones.

**Settings:** -48 semi – +0 semi – +48 semi

#### 2 Fine (Fine Tuning)

Determines the pitch of each Element in cents.

**Settings:** -64 cents – +0 cents – +63 cents

#### 3 Pitch Velocity Sens (Pitch Velocity Sensitivity)

Determines how the pitch of the Element responds to velocity. Positive settings will cause the pitch to rise the harder you play the keyboard and negative settings will cause it to fall. A setting of 0 results in no change in pitch.

**Settings:** -64 – +0 – +63

#### 4 Fine Scaling Sens (Fine Scaling Sensitivity)

Determines the degree to which the notes (specifically, their position or octave range) affect the pitch in fine tuning (set above) of the selected Element, assuming C3 as the basic pitch. A positive setting will cause the pitch of lower notes to change lower and that of higher notes to change higher. Negative values will have the opposite effect.

**Settings:** -64 – +0 – +63

#### 5 Random

This lets you randomly vary the pitch of the Element for each note you play. The higher the value, the greater the pitch variation. A value of “0” results in no pitch change.

**Settings:** 0 – 127

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

## 6 Pitch Key Follow

Determines the sensitivity of the Key Follow effect (the pitch interval of adjacent notes), assuming the pitch of the Center Key (7) as standard. At +100% (the normal setting), adjacent notes are pitched one semitone (100 cents) apart. At 0%, all notes are the same pitch specified as the Center Key. For negative values, the settings are reversed.

**Settings:** -200% – +0% – +200%

**NOTE** This parameter is useful for creating alternate tunings, or for use with sounds that do not need to be spaced in semitones, such as pitched drum sounds in a Normal Voice.

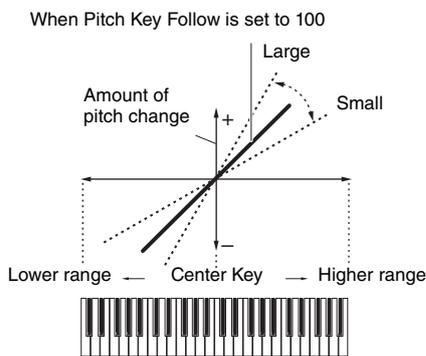
## 7 Center Key

Determines the central note or pitch for the Pitch Key Follow. The note number set here is the same pitch as normal regardless of the Pitch Key Follow setting.

**Settings:** C -2 – G8

**NOTE** You can also set the note directly from the Keyboard, by holding down the [SF6] button and pressing the desired key. See “Basic Operation” on page 37.

### Pitch Key Follow and Center Key

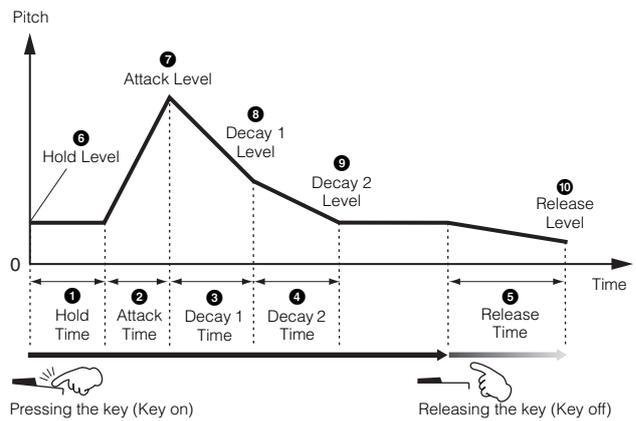


## Pitch EG Settings—[SF2] PEG (Pitch EG)

From this display you can set the Pitch EG parameters. Using the PEG, you can control the transition in pitch from the moment the sound starts to the moment it stops.

	Time	Level
Hold	0	+0
Attack	40	+0
Decay 1	64	+0
Decay 2	64	+0
Release	64	+0

Parameters shown in the screenshot include: EG Depth (+20), EG Time Vel Sens (+0), EG Depth Vel Sens (+0), Curve (2), EG Time Key Follow (+0), and Center Key (C 3).



## Time

The Time parameters let you set the time between the adjoining points of the level parameters below. A higher value results in a longer time until reaching the next level.

**Settings:** 0 – 127

### 1 Hold Time

Determines the time between the moment you press a note on the keyboard and the moment the envelope starts to rise.

### 2 Attack Time

Determines the speed of attack from the initial pitch (Hold Level) to the normal pitch of the Voice after the hold time has elapsed.

### 3 Decay 1 Time

Determines how fast the envelope falls from the normal pitch (Attack Level) of the Voice to the pitch specified as the Decay 1 Level.

### 4 Decay 2 Time

Determines how fast the envelope falls from the pitch specified as the Decay 1 Level to the pitch specified as the Decay 2 Level.

### 5 Release Time

Determines how fast the envelope falls from the pitch specified as the Decay 2 Level to the pitch specified as the Release level when the note is released.

## Level

The Level parameters let you set the amount of the pitch deviation based on the standard pitch specified at the Coarse Tuning and Fine Tuning in the Tune display (page 71) at each envelope point.

**Settings:** -128 – +0 – +127

### 6 Hold Level

Determines the initial pitch at the moment the note is pressed.

**7 Attack Level**

Determines the normal pitch of the pressed note.

**8 Decay 1 Level**

Determines the level which the pitch of sound reaches from the Attack Level after the Decay 1 time elapses.

**9 Decay 2 Level**

Determines the sustain-level pitch which will be maintained while a note is held.

**10 Release Level**

Determines the final pitch reached after the note is released.

**11 EG Depth**

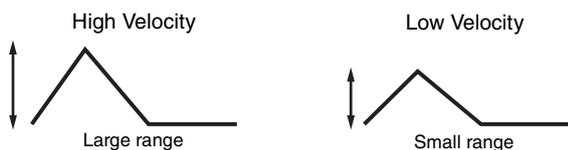
Determines the range over which the pitch envelope changes. A setting of 0 will cause the pitch not to change. The farther from 0 the value is, the larger the pitch range. For negative values, the pitch change is reversed.

**Settings:** -64 – +0 – +63

**12 EG Depth Vel Sens (EG Depth Velocity Sensitivity)**

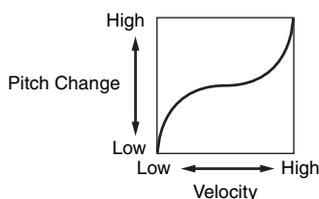
Determines how the pitch range of the Element responds to velocity. When this is set to a positive value, high velocities cause the pitch range to expand and low velocities cause it to contract, as shown below. When this is set to a negative value, high velocities cause the pitch range to contract and low velocities cause it to expand. When this is set to 0, the pitch envelope does not change no matter what the velocity.

**Settings:** -64 – +0 – +63



**13 EG Depth Vel Curve (EG Depth Velocity Curve)**

The five curves determine how the pitch range will be generated according to the velocity (strength) with which you play notes on the keyboard. The horizontal axis of the graph is the velocity, and the vertical axis is the pitch range.

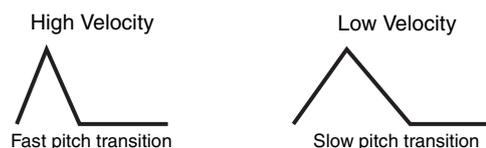


**Settings:** Curve 0 – 4

**14 EG Time Velocity Sens (EG Time Velocity Sensitivity)**

Determines how the PEG transition time (speed) responds to velocity, or the strength with which the note is pressed. When this is set to a positive value, high velocities result in a fast PEG transition speed while low velocities result in a slow speed, as shown below. When this is set to a negative value, high velocities result in a slow PEG transition speed while low velocities result in a fast speed. When this is set to 0, the PEG transition speed does not change no matter what the velocity.

**Settings:** -64 – +0 – +63



**15 EG Time Segment**

Determines the part of the Pitch EG which the EG Time Velocity Sensitivity (14) affects.

**Settings:** attack, atk+dcy, decay, atk+rls, all

**attack**

The EG Time Velocity Sensitivity affects the Attack Time and Hold Time.

**atk+dcy (attack+decay)**

The EG Time Velocity Sensitivity affects the Attack Time, Decay1 Time, and Hold Time.

**decay**

The EG Time Velocity Sensitivity affects the Decay 1/2 Time.

**atk+rls (attack+release)**

The EG Time Velocity Sensitivity affects the Attack Time, Release Time, and Hold Time.

**all**

This EG Time Velocity Sensitivity affects all the Pitch EG Time parameters.

**16 EG Time Key Follow**

Determines the degree to which the notes (specifically, their position or octave range) affect the pitch EG times of the selected Element. When this is set to a positive value, high notes result in a high pitch EG transition speed while low notes result in a slow speed. When this is set to a negative value, high notes result in a slow pitch EG transition speed while low notes result in a high speed. When this is set to 0, the pitch EG transition speed does not change no matter what the pressed note.

**Settings:** -64 – +0 – +63

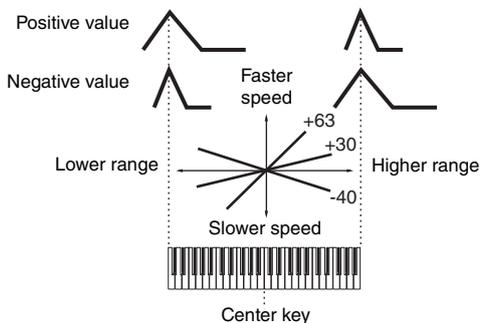
Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode  
Reference

### 17 Center Key

Determines the central note or pitch for the EG Time Key Follow (16). When the Center Key note is played, the PEG behaves according to its actual settings.

**Settings:** C -2 – G8

#### EG Time Key Follow and Center Key



**NOTE** You can also set the note directly from the Keyboard, by holding down the [SF6] button and pressing the desired key. See "Basic Operation" on page 37.

## Adjust the brightness using the Filter—[F3] Filter

### Selecting a Filter Type—[SF1] Type

From this display you can select a Filter Type for the current Element. The tonal characteristics of the Voice and Filter functions differ depending on which Filter type is selected here.



### 1 Type\*

Determines the Filter Type for the current Element.

**Settings:** LPF24D, LPF24A, LPF18, LPF18s, LPF12, LPF6, HPF24D, HPF12, BPF12D, BPFw, BPF6, BEF12, BEF6, Dual LPF, Dual HPF, Dual BPF, Dual BEF, LPF12+BPF6, thru

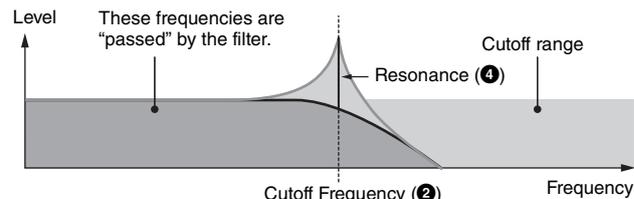
## About Filter Types

### LPF (Low Pass Filter)

This is a Filter type that only passes signals below the Cutoff Frequency. The sound can be brightened by raising the cutoff frequency of the filter. On the other hand, the sound can be darkened by lowering the cutoff frequency of the filter. You can produce a distinctive "peaky" sound by raising the Resonance to boost the signal level in the area of the Cutoff Frequency. This filter type is most popular and useful for producing classic synthesizer sounds.

#### LPF24D

A dynamic 24 dB/oct low-pass filter with a characteristic digital sound. Compared to the LPF24A type (below), this filter can produce a more pronounced resonance effect.



#### LPF24A

A digital dynamic low-pass filter with characteristics similar to a 4-pole analog synthesizer filter.

#### LPF18

3-pole 18 dB/oct low-pass filter.

#### LPF18s

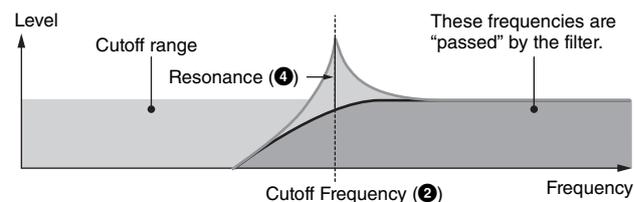
3-pole 18 dB/oct low-pass filter. This filter has a smoother cutoff slope than the LPF18 type.

### HPF (High Pass Filter)

This is a Filter type that only passes signals above the Cutoff Frequency. You can then use the Resonance to add further character to the sound.

#### HPF24D

A dynamic 24 dB/oct high-pass filter with a characteristic digital sound. This filter can produce a pronounced resonance effect.



#### HPF12

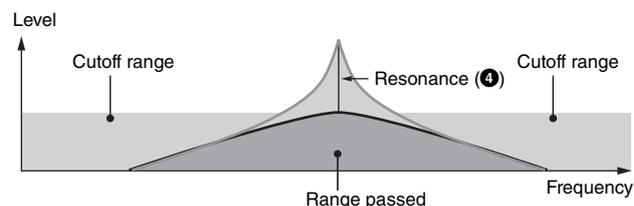
12 dB/oct dynamic high-pass filter.

### BPF (Band Pass Filter)

This Filter type is a combination of a LPF and HPF. When this Filter Type is selected, you can set the Cutoff Frequency around which the audio signal is passed.

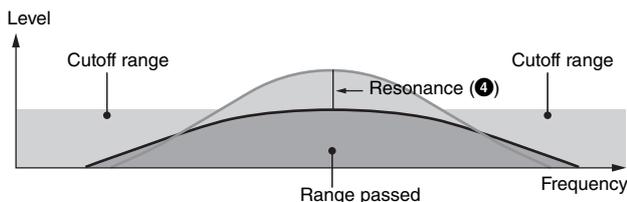
#### BPF12D

The combination of a -12 dB/oct HPF and LPF with a characteristic digital sound.



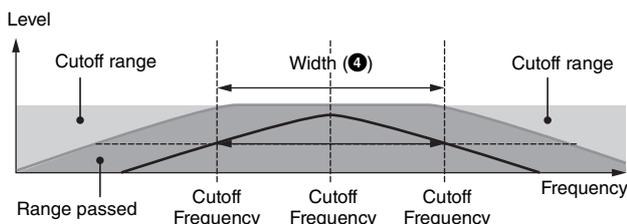
**BPF6**

The combination of a -6 dB/oct HPF and LPF.



**BPFw**

A 12 dB/oct BPF that combines HPF and LPF filters to allow wider bandwidth settings.

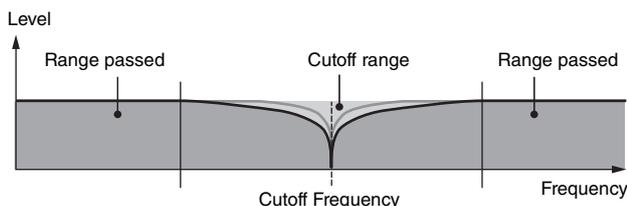


**BEF (Band Elimination Filter)**

When this Filter Type is selected, you can set the Cutoff Frequency around which the audio signal is muted or eliminated. The Band Elimination Filter has an opposite effect on the sound compared to the Band Pass Filter.

**BEF12**

**BEF6**

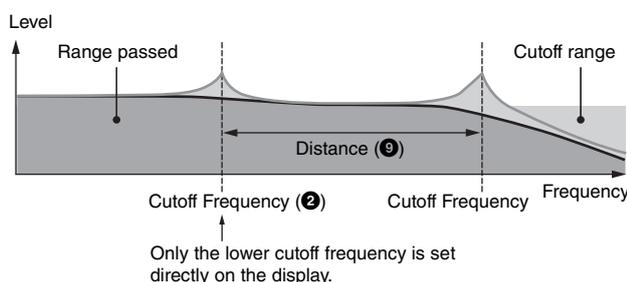


**Dual Type Filter**

This type is a combination of two same filter types. You can edit the distance between the two Cutoff Frequencies.

**Dual LPF**

Two 12 dB/oct low-pass filters connected in parallel.



**Dual HPF**

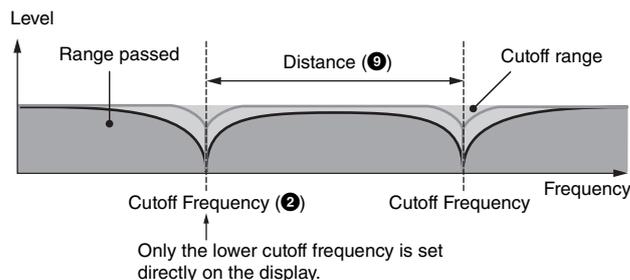
Two -12 dB/oct high-pass filters connected in parallel.

**Dual BPF**

Two -6 dB/oct band-pass filters connected in parallel.

**Dual BEF**

Two -6 dB/oct band-elimination filters connected in parallel.



**Combination Type Filter**

This type is a combination of two different filter types. You can edit the distance between the two Cutoff Frequencies.

**LPF12+HPF12**

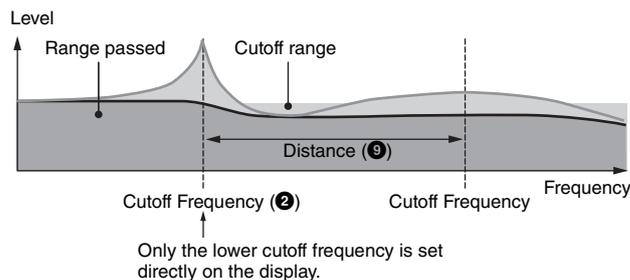
A combination of a -12 dB/oct low-pass filter and high-pass filter. When this Filter Type is selected, HPF Cutoff (10) and HPF Key Follow Sensitivity (11) can be set. Only the LPF graph is shown on the display.

**LPF6+HPF6**

A combination of a -6 dB/oct low-pass filter and high-pass filter. When this Filter Type is selected, HPF Cutoff (10) and HPF Key Follow Sensitivity (11) can be set. Only the LPF graph is shown on the display.

**LPF12+BPF6**

A combination of a low-pass filter and band-pass filter. You can edit the distance between the two Cutoff Frequencies.



**2 Cutoff\***

Determines the Cutoff Frequency for the Filter, or the central frequency around which the Filter is applied. The tonal characteristics of the Voice and function of the Cutoff Frequency differ depending on which Filter type is selected. Set this parameter while confirming the Filter graph shown on the display.

**Settings:** 0 – 255

**3 Cutoff Velocity Sens (Cutoff Velocity Sensitivity)**

Determines how the Cutoff Frequency (2) responds to velocity, or the strength with which you play notes. For positive settings, the more strongly you play the keyboard, the higher the cutoff frequency becomes. A setting of 0 will cause the Cutoff Frequency not to change no matter what velocity. Negative settings will cause the Cutoff Frequency to rise the more softly you play the keyboard.

**Settings:** -64 – +0 – +63

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

#### 4 Resonance\*/ Width

This parameter's function varies according to the selected Filter Type. If the selected filter is an LPF, HPF, BPF (excluding the BPFw), or BEF, this parameter is used to set the Resonance. For the BPFw, it is used to adjust the frequency bandwidth

Resonance is used to set the amount of Resonance (harmonic emphasis) applied to the signal at the cutoff frequency. This can be used in combination with the cutoff frequency parameter to add further character to the sound. The Width parameter is used to adjust the width of the band of signal frequencies passed by the filter with the BPFw. When the Filter Type is set to "LPF6" or "thru," this parameter is not available.

**Settings:** 0 – 127

#### 5 Resonance Velocity Sens (Resonance Velocity Sensitivity)

Determines the degree to which resonance responds to velocity, or the strength with which you play notes. For positive values, the higher the velocity, the greater the resonance. A setting of 0 results in no change of the Resonance value. For negative values, the lower the velocity, the greater the resonance.

**Settings:** -64 – +0 – +63

#### 6 Gain

Determines the Gain of the signal sent to the filter. The lower the value, the lower the Gain. The tonal characteristics generated by the filter differ depending on the value set here.

**Settings:** 0 – 255

#### 7 Cutoff Key Follow

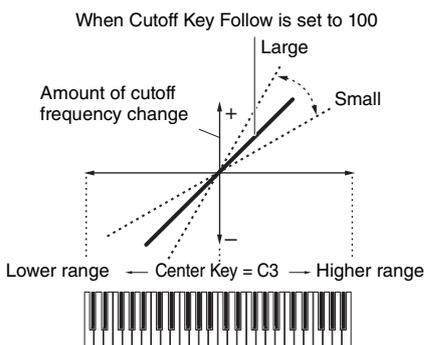
Determines the degree to which the notes (specifically, their position or octave range) affect the Cutoff Frequency (set above) of the selected Element, assuming C3 as the basic pitch. A positive setting will lower the Cutoff frequency for lower notes and raise it for higher notes. A negative setting will have the opposite effect.

**Settings:** -64 – +0 – +63

#### 8 Center Key (Indication only)

This indicates that the central note for Cutoff Key Follow (7) above is C3. Keep in mind that this is for display purposes only; the value cannot be changed.

#### Cutoff Key Follow and Center Key



#### 9 Distance

Determines the distance between the two Cutoff frequencies, for the Dual Filter types (which feature two identical filters combined in parallel), and the LPF12 + BPF6 type. When any of other filter types is selected, this parameter is not available.

**Settings:** -128 – +0 – +127

#### 10 HPF Cutoff (High Pass Filter Cutoff Frequency)

Determines the central frequency for the Key Follow parameter (below) of the HPF. When a filter type "LPF12" or "LPF6" is selected, this parameter is available.

**Settings:** 0 – 255

#### 11 HPF Key Follow (High Pass Filter Key Follow)

Determines the degree to which the notes (specifically, their position or octave range) affect the Cutoff Frequency (set above) of the HPF. A positive setting will lower the Cutoff frequency for lower notes and raise it for higher notes. A negative setting will have the opposite effect. When a filter type "LPF12" or "LPF6" is selected, this parameter is available.

**Settings:** -200% – 0% – +200%

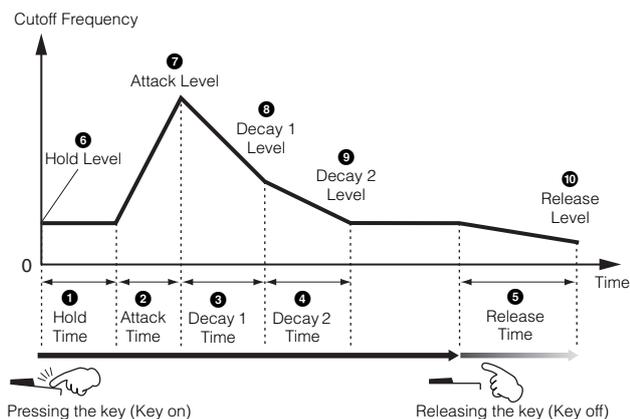
#### 12 Center Key

This indicates that the central note for High Pass Filter Key Follow (11) above is C3. Keep in mind that this is for display purposes only; the value cannot be changed.

### Filter EG Settings—[SF2] FEG (Filter EG)

From this display you can set the Filter EG parameters. Using the FEG, you can control the change in tone from the moment the sound starts to the moment it stops.

	Hold	Attack	Decay 1	Decay 2	Release
Time	0	51	112	120	115
Level	+82	+77	+39	-25	-25



### Time

The Time parameters let you set the time between the adjoining points of the level parameters below. A higher value results in a longer time until reaching the next level.

**Settings:** 0 – 127

#### 1 Hold Time

Determines the time between the moment you press a note on the keyboard and the moment the envelope starts to rise.

#### 2 Attack Time

Determines the speed of attack from the initial cutoff frequency (Hold Level) to the maximum level of the Voice after the hold time has elapsed.

#### 3 Decay 1 Time

Determines how fast the envelope falls from the maximum cutoff frequency (Attack Level) to the cutoff frequency specified as the Decay 1 Level.

#### 4 Decay 2 Time

Determines how fast the envelope falls from the cutoff frequency specified as the Decay 1 Level to the cutoff frequency specified as the Decay 2 Level.

#### 5 Release Time

Determines how fast the envelope falls from the cutoff frequency specified as the Decay 2 Level to the cutoff frequency specified as the Release Level when the note is released.

### Level

The Level parameters let you set the amount of the filter change at each point based on the cutoff frequency specified in the Filter Type display (page 74).

**Settings:** -128 – +0 – +127

#### 6 Hold Level

Determines the initial cutoff frequency at the moment the note is pressed.

#### 7 Attack Level

Determines the maximum cutoff frequency which the envelope reaches after a note is pressed.

#### 8 Decay 1 Level

Determines the level which the cutoff frequency reaches from the Attack Level after the Decay1 time elapses.

#### 9 Decay 2 Level

Determines the cutoff frequency which will be maintained while a note is held.

#### 10 Release Level

Determines the final cutoff frequency reached after the note is released.

#### 11 EG Depth

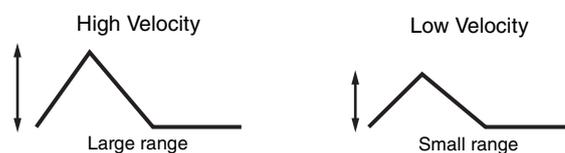
Determines the range over which the cutoff frequency envelope changes. A setting of 0 will cause the cutoff frequency not to change. The farther from 0 the value is, the larger the range of the cutoff frequency. For negative values, the change of the cutoff frequency is reversed.

**Settings:** -64 – +0 – +63

#### 12 EG Depth Vel Sens (EG Depth Velocity Sensitivity)

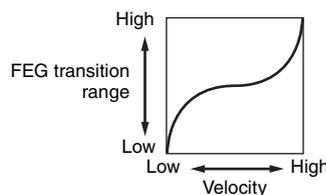
Determines how the range of the cutoff frequency responds to velocity. When this is set to a positive value, high velocities cause the Filter EG range to expand and low velocities cause it to contract, as shown below. When this is set to a negative value, high velocities cause the Filter EG range to contract and low velocities cause it to expand. When this is set to 0, the Filter EG range does not change no matter what the velocity.

**Settings:** -64 – +0 – +63



#### 13 EG Depth Vel Sens Curve (EG Depth Velocity Sensitivity Curve)

The five curves determine how the FEG transition range changes according to the velocity (strength) with which you play notes on the keyboard. The selected curve is indicated by the graphic on the display. The horizontal axis of the graph is the velocity, and the vertical axis is the Cutoff Frequency range. For example, the illustration below indicates that the middle range of velocities (around 64) causes the FEG transition range not to change and the higher/lower range of velocities causes it to change more greatly.



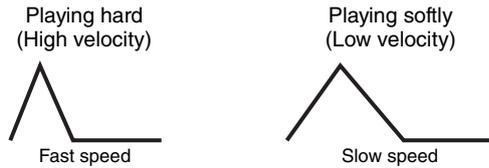
**Settings:** Curve 0 – 4

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode  
Reference

### 14 EG Time Velocity Sens (EG Time Velocity Sensitivity)

Determines how the FEG transition time (speed) responds to velocity, or the strength with which the note is pressed. When this is set to a positive value, high velocities result in a fast FEG transition speed while low velocities result in a slow speed, as shown below. When this is set to a negative value, high velocities result in a slow FEG transition speed while low velocities result in a fast speed. When this is set to 0, the pitch transition speed does not change no matter what the velocity.

**Settings:** -64 – +0 – +63



### 15 EG Time Velocity Sens Segment (EG Time Velocity Sensitivity Segment)

Determines the part of the Filter EG which the EG Time Velocity Sensitivity (14) affects.

**Settings:** attack, atk+dcy, decay, atk+rls, all

**attack**

The EG Time Velocity Sensitivity affects the Attack Time and Hold Time.

**atk+dcy (attack+decay)**

The EG Time Velocity Sensitivity affects the Attack Time, Decay1 Time, and Hold Time.

**decay**

The EG Time Velocity Sensitivity affects the Decay 1/2 Time.

**atk+rls (attack+release)**

The EG Time Velocity Sensitivity affects the Attack Time, Release Time, and Hold Time.

**all**

The EG Time Velocity Sensitivity affects all the Filter EG Time parameters.

### 16 EG Time Key Follow

Determines the degree to which the notes (specifically, their position or octave range) affect the Filter EG times of the selected Element. When this is set to a positive value, high notes result in a fast Filter EG transition speed while low notes result in a slow speed. When this is set to a negative value, high velocities result in a slow Filter EG transition speed while low notes result in a fast speed. When this is set to 0, the Filter EG transition speed does not change no matter what note is pressed.

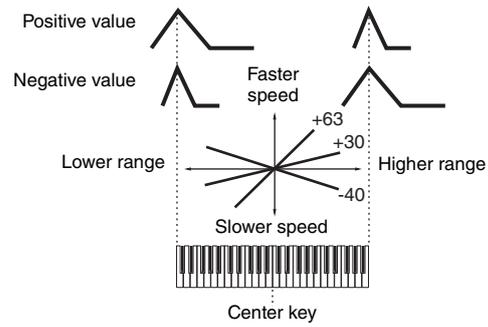
**Settings:** -64 – +0 – +63

### 17 Center Key

Determines the central note or pitch for the EG Time Key Follow (16). When the Center Key note is played, the FEG behaves according to its actual settings.

**Settings:** C -2 – G8

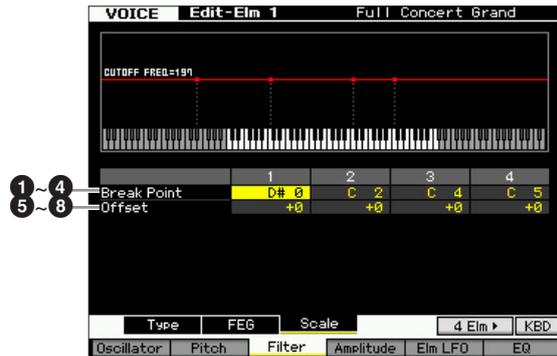
### EG Time Key Follow and Center Key



**NOTE** You can also set the note directly from the Keyboard, by holding down the [SF6] button and pressing the desired key. See “Basic Operation” on page 37.

## Filter Scaling settings—[SF3] Scale

Filter Scaling controls the filter cutoff frequency according to the positions of the notes on the keyboard. You can divide the entire keyboard by four break points, and assign different offset values of Cutoff Frequency to them respectively.



### 1 – 4 Break Point 1 – 4

Determines the four Break Points by specifying the note numbers respectively.

**Settings:** C -2 – G8

**NOTE** You can also set the Break Point directly from the keyboard, by holding down the [SF6] INFO button and pressing the desired key. See “Basic Operation” on page 37.

**NOTE** Break Point 1 to Break Point 4 will be automatically be arranged in ascending order across the keyboard.

### 5 – 8 Offset 1 – 4

Determines the offset value to the Cutoff Frequency at each Break Point.

**Settings:** -128 – +0 – +127

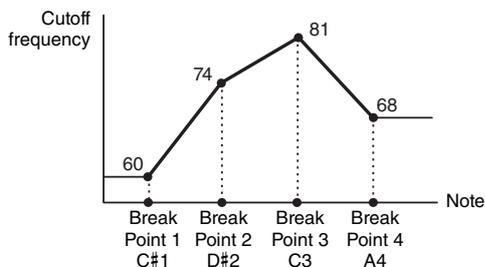
**NOTE** Regardless of the size of these Offsets, the minimum and maximum Cutoff limits (values of 0 and 127, respectively) cannot be exceeded.

**NOTE** Any note played below the Break Point 1 note results in the Break Point 1 Level setting. Likewise, any note played above the Break Point 4 note results in the Break Point 4 Level setting.

### Setting example of Filter Scaling

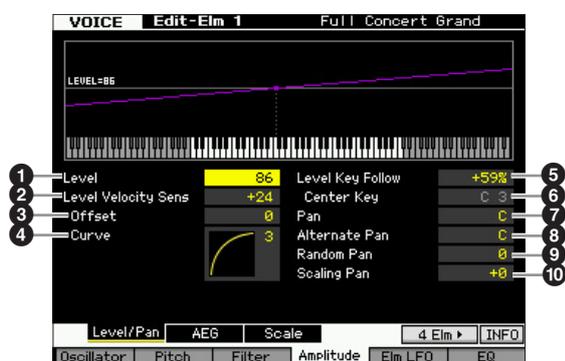
The best way to understand Filter Scaling is by example. For the settings shown in the example display below, the basic Cutoff frequency value is 64, and the various Offset values at the selected Break point settings change that basic value accordingly. The specific changes to the Cutoff frequency are shown in the diagram below. The Cutoff frequency changes in a linear fashion between successive Break Points as shown.

	1	2	3	4
Break Point	C#1	D#2	C3	A4
Offset	-4	+10	+17	+4



## Output Level settings—[F4] Amplitude

### Level and Pan settings—[SF1] Level/Pan



#### 1 Level\*

Determines the output level of the Element.

Settings: 0 – 127

#### 2 Level Velocity Sens (Level Velocity Sensitivity)\*

Determines how the output level of the Element responds to velocity. Positive settings will cause the output level to rise the harder you play the keyboard. A setting of 0 will cause the output level not to change. Negative settings will cause the output level to rise the more softly you play the keyboard.

Settings: -64 – +0 – +63

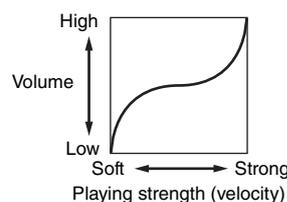
#### 3 Level Velocity Sens Offset (Level Velocity Sensitivity Offset)

Raises or lowers the level specified at the Level Velocity Sensitivity (2). A setting of 64 results in the original values of the Level Velocity Sensitivity (2) being used. Settings above 64 will raise the level specified at the Level Velocity Sensitivity (2). Settings below 64 will reduce the level.

Settings: 0 – 127

#### 4 Level Velocity Sens Curve (Level Velocity Sensitivity Curve)\*

The five curves determine how the actual velocity will be generated according to the velocity (strength) with which you play notes on the keyboard. The selected curve is indicated by the graphic on the display.



Settings: Curve 0 – 4

#### 5 Level Key Follow

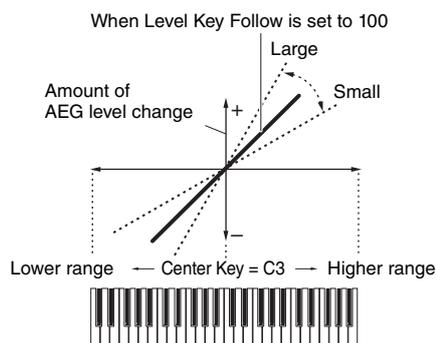
Determines the degree to which the notes (specifically, their position or octave range) affect the amplitude level (set above) of the selected Element, assuming C3 as the basic pitch. A positive setting will lower the output level for lower notes and raise it for higher notes. A negative setting will have the opposite effect.

Settings: -200% – +0% – +200%

#### 6 Center Key (Indication only)

This indicates that the central note for Level Key Follow (5) above is C3. Keep in mind that this is for display purposes only; the value cannot be changed.

Level Key Follow and Center Key



#### 7 Pan\*

Adjusts the stereo pan position of the sound.

Settings: L63 (far left) – C (center) – R63 (far right)

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

Reference

### 8 Alternate Pan

Determines the amount by which the sound is panned alternately left and right for each note you press, assuming the pan position set above as center. Higher values increase the width of the Pan range.

**Settings:** L64 – C – R63

### 9 Random Pan

Determines the amount by which the sound of the selected Element is panned randomly left and right for each note you press. The Pan setting (above) is used as the Center Pan position.

**Settings:** 0 – 127

### 10 Scaling Pan

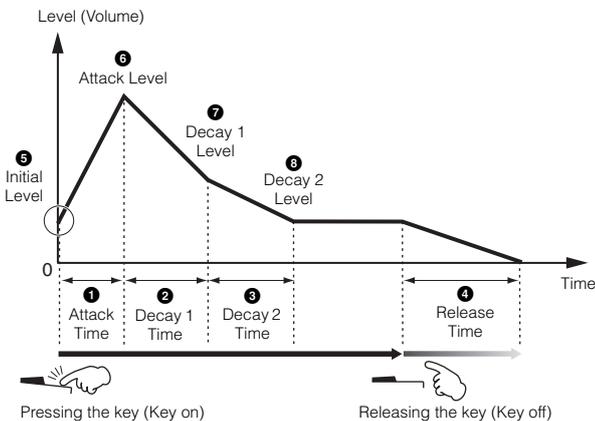
Determines the degree to which the notes (specifically, their position or octave range) affect the Pan position (set above), left and right, of the selected Element. At note C3, the main Pan setting (above) is used for the basic Pan position. A positive setting will move the pan position leftward for lower notes and move it rightward for higher notes. A negative setting will have the opposite effect.

**Settings:** -64 – +0 – +63

## Amplitude EG Settings—[SF2] AEG (Amplitude EG)

From this display you can set the Amplitude EG parameters. Using the AEG, you can control the transition in volume from the moment the sound starts to the moment the sound stops.

	Initial	Attack	Decay 1	Decay 2	Release
Time	0	86	102	102	65
Level	6	127	100	0	



## Time\*

The Time parameters let you set the time between the adjoining points of the level parameters below. A higher value results in a longer time until reaching the next level.

**Settings:** 0 – 127

### 1 Attack Time

Determines how quickly the sound reaches its maximum level after the key is pressed.

### 2 Decay 1 Time

Determines how fast the envelope falls from the Attack Level to the Decay 1 Level.

### 3 Decay 2 Time

Determines how fast the envelope falls from the Decay 1 Level to the Decay 2 Level (sustain level).

### 4 Release Time

Determines how quickly the sound decays to silence after the key is released.

## Level

The Level parameters let you set the amount of the transition at each point based on the level specified in the Level/Pan display (page 79).

**Settings:** 0 – 127

### 5 Initial Level

Determines the initial level at the moment the note is pressed.

### 6 Attack Level

Determines the maximum level which the envelope reaches after a note is pressed.

### 7 Decay 1 Level

Determines the level which the envelope reaches from the Attack Level after the Decay 1 time elapses.

### 8 Decay 2 Level

Determines the level which will be maintained while a note is held.

### 9 Half Damper Switch

When the Half Damper Switch is set to on, you can produce a “half-pedal” effect just as on a real acoustic piano by using the optional FC3 Foot Controller connected to the FOOT SWITCH SUSTAIN jack on the rear panel.

**Settings:** on, off

**NOTE** When you wish to recreate a half-damper effect using the optional FC3, set the Sustain Pedal parameter to “FC3 (half on)” in the Play Display (page 219) of the Utility mode. Note that this setting is not necessary when controlling the half-damper by sending the Control Change messages from an external MIDI device to the instrument.

### 10 Half Damper Time

Determines how quickly the sound decays to silence after the key is released while holding down the Foot Controller FC3 with the Half Damper Switch parameter (9) turned on. After releasing the key, you can control the decay time of the sound via the Foot Controller position, with the Half Damper Time of the AEG being the maximum decay value and the Release Time of the AEG being the minimum decay value.

When you release the pedal, the decay time after the key is released is equivalent to the AEG Release Time.

You can create a piano-like effect by setting the Release Time to a small value and setting the Half Damper Time to a large value.

The setting here is available only when the Half Damper Switch parameter (9) is set to on and you use the optional FC3 connected to the rear panel.

**Settings:** 0 – 127

### 11 EG Time Velocity Sens (EG Time Velocity Sensitivity)

Determines how the AEG transition time (speed) responds to velocity, or the strength with which the note is pressed. When this is set to a positive value, high velocities result in a fast AEG transition speed while low velocities result in a slow speed, as shown below. When this is set to a negative value, high velocities result in a slow AEG transition speed while low velocities result in a fast speed. When this is set to 0, the amplitude transition speed does not change no matter what the velocity.

**Settings:** -64 – +0 – +63



### 12 EG Time Velocity Sens Segment (EG Time Velocity Sensitivity Segment)

Determines the part of the Amplitude EG which the EG Time Velocity Sensitivity (11) affects.

**Settings:** attack, atk+dcy, decay, atk+rls, all

**attack**

The EG Time Velocity Sensitivity affects the Attack Time.

**atk+dcy (attack+decay)**

The EG Time Velocity Sensitivity affects the Attack Time and Decay1 Time.

**decay**

The EG Time Velocity Sensitivity affects the Decay Time.

**atk+rls (attack+release)**

The EG Time Velocity Sensitivity affects the Attack Time and Release Time.

**all**

The EG Time Velocity Sensitivity affects all the Amplitude EG Time parameters.

### 13 EG Time Key Follow

Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG times of the selected Element. When this is set to a positive value, high notes result in a fast Amplitude EG transition

speed while low notes result in a slow speed. When this is set to a negative value, high velocities result in a slow Amplitude EG transition speed while low notes result in a fast speed. When this is set to 0, the Amplitude EG transition speed does not change no matter what the pressed note.

**Settings:** -64 – +0 – +63

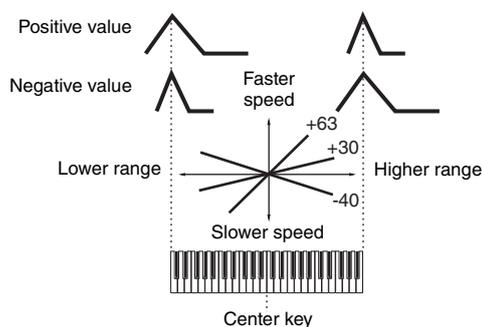
### 14 Center Key

Determines the central note for the EG Time Key Follow (13). When the Center Key note is played, the AEG behaves according to its actual settings.

**Settings:** C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

#### EG Time Key Follow and Center Key



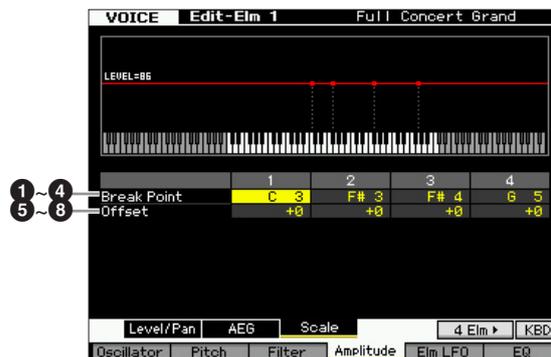
### 15 Release Adj. (EG Time Key Follow Sensitivity Release Adjustment)

Determines the sensitivity of the EG Time Key Follow Sensitivity to EG Release. Setting this parameter to “+63” will set the EG Time Key Follow Sensitivity to the value of Decay 1 or Decay 2. The lower the value, the lower the sensitivity. Setting this parameter to “-64” will produce no effect in the EG Time Key Follow Sensitivity.

**Settings:** -64 – +0 – +63

## Amplitude Scaling settings—[SF3] Scale

Amplitude Scaling controls the amplitude output level according to the positions of the notes on the keyboard. You can divide the entire keyboard by four break points, and assign different offset values of amplitude to them respectively.



- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

**1 – 4 Break Point 1 – 4**

Determines the four Break Points by specifying the note numbers respectively.

**Settings:** C -2 – G8

**NOTE** You can also set the Break Point directly from the Keyboard, by holding down the [SF6] KBD button and pressing the desired key. See “Basic Operation” on page 37.

**NOTE** Break Point 1 to Break Point 4 will be automatically be arranged in ascending order across the keyboard.

**5 – 8 Offset 1 – 4**

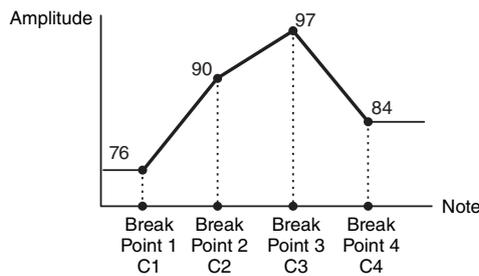
Determines the offset value to the level at each Break Point.

**Settings:** -128 – +0 – +127

**Setting example of Amplitude Scaling**

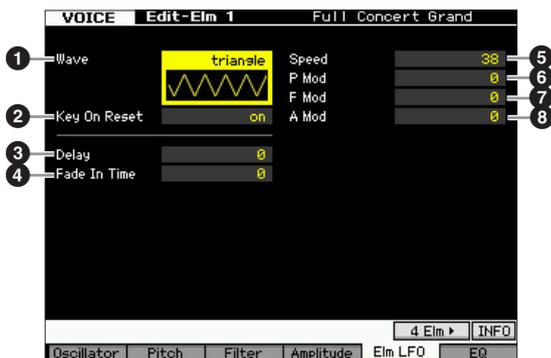
The best way to understand Amplitude Scaling is by example. For the settings shown in the example display below, the basic Amplitude (volume) value for the selected Element is 80, and the various Offset values at the selected Break point settings change that basic value accordingly. The specific changes to the Amplitude are shown in the diagram below. The Amplitude changes in a linear fashion between successive Break Points as shown.

	1	2	3	4
Break Point	C1	C2	C3	C4
Offset	-4	+10	+17	+4



**Modulating the Voice—[F5] Elm LFO (Element LFO)**

This display gives you a comprehensive set of controls over the LFO for each individual Element. The LFO can be used to create vibrato, wah, tremolo and other special effects, by applying it to the pitch, filter and amplitude parameters.



**1 Wave**

Selects the Wave and determines how the LFO waveform modulates the sound.

**Settings:** saw, triangle, square

**2 Key On Reset**

Determines whether or not the LFO is reset each time a note is played.

**Settings:** off, on

**off**

The LFO cycles freely with no key synchronization. Pressing a key starts the LFO wave at whatever phase the LFO happens to be at that point.

**on**

The LFO resets with each note you play and starts a wave at the phase specified by the Phase parameter (above).

**3 Delay**

Determines the delay time between the moment you press note on the keyboard and the moment the LFO comes into effect. A higher value results in a longer delay time.

**Settings:** 0 – 127

**4 Fade In Time**

Determines the amount of time for the LFO effect to fade in after the Delay time has elapsed. A higher value results in a slower fade-in. When set to “0,” the LFO effect will not fade in and reach the maximum level immediately after the Delay time has elapsed.

**Settings:** 0 – 127

**5 Speed**

Determines the speed of the LFO Wave. The higher the value, the faster the LFO speed.

**Settings:** 0 – 63

**6 P Mod (Pitch Modulation Depth)**

Determines the amount (depth) by which the LFO wave varies (modulates) the pitch of the sound. The higher the setting, the greater the depth of control.

**Settings:** 0 – 127

**7 F Mod (Filter Modulation Depth)**

Determines the amount (depth) by which the LFO wave varies (modulates) the Filter Cutoff frequency. The higher the setting, the greater the depth of control.

**Settings:** 0 – 127

**8 A Mod (Amplitude Modulation Depth)**

Determines the amount (depth) by which the LFO wave varies (modulates) the amplitude or volume of the sound. The higher the setting, the greater the depth of control.

**Settings:** 0 – 127

## Equalizer (EQ) Settings—[F6] EQ

From this display, you can set the EQ parameters for each Element.

### 1 Type

Determines the EQ Type. The number of parameters and values available differs depending on the selected EQ type.

#### Settings:

2 Band, PEQ

See below.

Boost 6, Boost 12, Boost 18

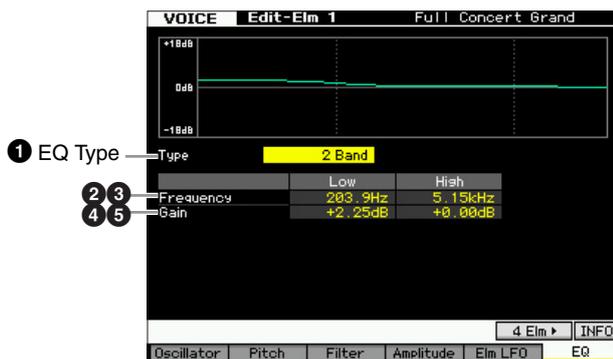
Boosts the entire band of the selected Element by +6dB, +12dB, and +18dB respectively.

thru

If you select this, the equalizers are bypassed and the entire signal is unaffected.

## When the EQ Type is set to “2 Band”

This is a “shelving” equalizer, which combines separate high and low frequency bands.



### 2 Low Frequency

Determines the standard frequency of the lower EQ band.

**Settings:** 50.1 Hz – 2.00 kHz

### 3 High Frequency

Determines the standard frequency of the higher EQ band.

**Settings:** 503.8 Hz – 10.1 kHz

### 4 Low Gain

Determines the amount by which signals below the Low Frequency (2) will be boosted/attenuated.

**Settings:** -12.00 dB – +0.00 dB – +12.00 dB

### 5 High Gain

Determines the amount by which signals above the High Frequency (3) will be boosted/attenuated.

**Settings:** -12.00 dB – +0.00 dB – +12.00 dB

## When the EQ Type is set to “PEQ”

The Parametric EQ for the single band is used to attenuate or boost signal levels (gain) around the Frequency. This type features 32 different “Q” settings, which determine the frequency band width of the equalizer.



### 2 Low Frequency

Determines the center frequency.

**Settings:** 139.7 Hz – 12.9 kHz

### 4 Low Gain

Determines the amount by which signals below the Low Frequency (2) will be boosted/attenuated.

**Settings:** -12.00 dB – +0.00 dB – +12.00 dB

### 6 Q

Determines the Q (bandwidth) for the band. The lower the setting, the greater the bandwidth. The higher the setting, the smaller the bandwidth.

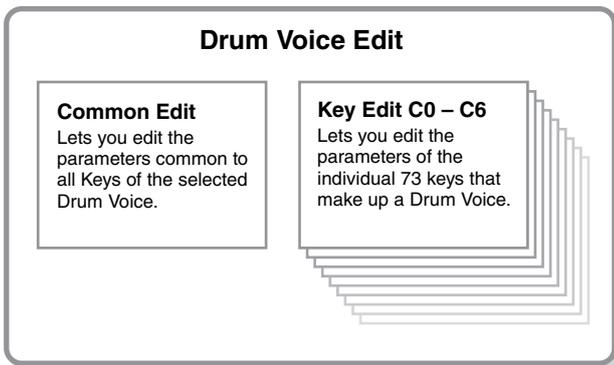
**Settings:** 0.7 – 10.3

# Editing a Drum Voice

“Editing” refers to the process of creating a Voice by changing the parameters that make up the Voice. This can be done in Voice Edit, a sub mode within the Voice mode. In this section, we’ll show you how to edit a Drum Voice. To enter the Drum Voice Edit mode, press the [VOICE] button to enter the Voice mode, select a Drum Voice, then press the [EDIT] button.

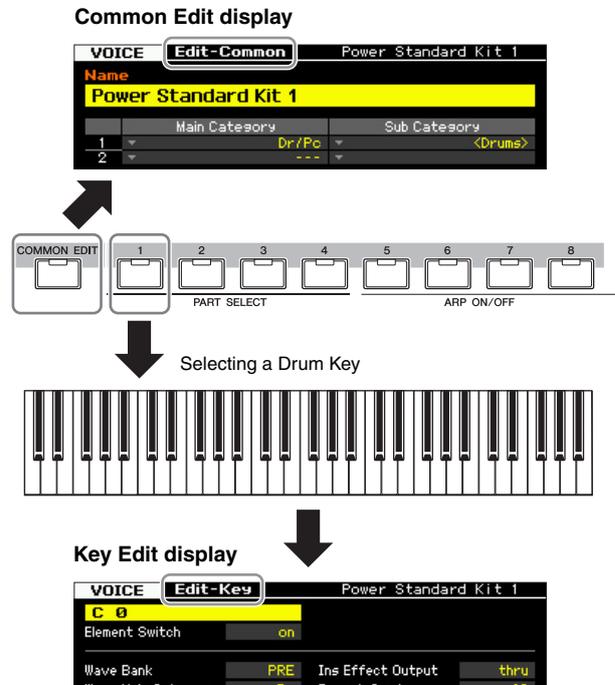
## Common Edit and Key Edit

Each Drum Voice can consist of up to 73 Drum Keys, assigned to notes spread across the keyboard (C0 to C6). There are two types of Drum Voice Edit displays: those for Common Edit to edit the settings common to all keys, and those for Key Edit to edit individual keys.



## Editing Drum Voices

- 1 Press the [VOICE] button to enter the Voice Play mode.**  
Select a Drum Voice to be edited.
- 2 Press the [EDIT] button to enter the Voice Edit mode.**
- 3 Call up the desired Edit display, Common Edit or Key Edit.**  
To call up the Common Edit display, press the [COMMON EDIT] button. To call up the Key Edit display, press the Number button [1]. In the Drum Key Edit mode, press the Key to which your desired drum instrument sound is assigned.



### 4 Call up the desired display.

To find the desired display, note the tab menu items corresponding to the [F1] – [F6] buttons and [SF1] – [SF5] buttons. Each tab menu of the [F1] – [F6] buttons contains sub menus which correspond to the [SF1] – [SF5] buttons at the bottom of the display.

**NOTE** By pressing the [SF6] button, you can use various functions such as the Information display, Character input (page 37), Number button function (page 36), and List display/selection (page 37). The function called up via the [SF6] button differs depending on the selected parameter where the cursor is located.

### 5 Move the cursor to the desired parameter.

### 6 Edit the value by using the [INC/YES], [DEC/NO] buttons and the data dial.

### 7 Repeat steps 3 – 6 as desired.

### 8 Enter the desired name for the edited Voice.

Use the Name display (page 55) of the Voice Common Edit mode.

### 9 Store the edited Voice.

Press the [STORE] button to call up the Store window (page 54) then store the edited Voice.

**NOTICE**

- The edited Voice will be lost when selecting the different Voice or turning the power off. Make sure to store the Voice data to the internal memory by pressing the [STORE] button before selecting a different Voice or turning the power off.
- Because User Memory to which the Voice is stored is Flash Memory, the edited and stored Voice will not be erased even if the power is turned off. You need not worry about losing

your stored data. The Voice Store operation, however, will overwrite the Voice data already stored to the destination Voice number. For this reason, important data should always be backed up to a separate USB storage device or to a computer connected via network to the MOTIF XF (page 241).

**NOTE** Other convenient functions are also available in the Drum Voice Edit mode. For details, see page 54.

## Common Edit parameters

[VOICE] → Drum Voice selection → [EDIT] → [COMMON EDIT]

The Common Edit lets you edit the parameters common to all Drum Keys of the selected Drum Voice.

### General Settings for the selected Voice—[F1] General

**NOTE** The Common Edit parameters of the Drum Voice are basically the same as those of the Normal Voice. However, some parameters having the same name as those of the Normal Voice are not available for the Drum Voice.

#### Naming the edited Voice—[SF1] Name

This is the same as in Normal Voice Common Edit. See page 55.

#### Play Mode Settings such as Micro Tuning and Mono/Poly—[SF2] Play Mode

This is the same as in Normal Voice Common Edit. See page 55.

#### Other settings—[SF3] Other

This is the same as in Normal Voice Common Edit. See page 57.

### Arpeggio settings—[F2] ARP Main (Arpeggio Main)

This is the same as in Normal Voice Common Edit. See page 58.

### Arpeggio settings—[F3] ARP Other (Arpeggio Other)

By changing the timing and velocity of the notes, you can change the rhythmic “feel” of the Arpeggio playback. This is the same as in Normal Voice Common Edit (page 59) except for the Fixed SD/BD parameter.

#### Fixed SD/BD

This parameter is available only for Drum Voices. When this parameter is set to on, C1 will be used as the note of the Snare Drum and D1 will be used as the note of the Bass Drum in Arpeggio playback.

Although most Drum Kits assign the Snare Drum sound to C1 and the Bass Drum to D1, certain Drum Kits assign these sounds also to other notes additionally and certain Arpeggio Types are created by using those notes (different from C1 and D1). Accordingly, you may hear improper sounds depending on the selected Arpeggio Type and Drum Kit. Setting this parameter to on may solve such problems.

If you feel that the Snare and Bass Drum sound is improper when the Arpeggio Type is changed via the [SF1] – [SF5] buttons, it is a good idea to set this parameter to on.

**Settings:** on, off

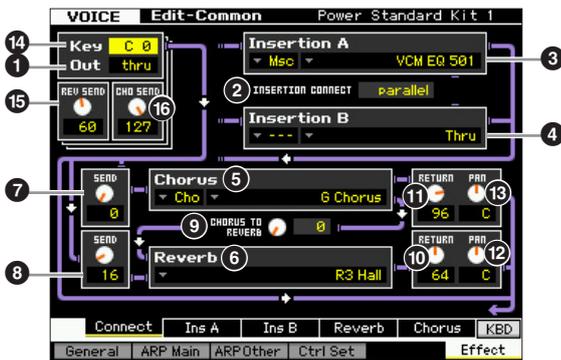
## Controller settings—[F4] Ctrl Set (Controller Set)

This is the same as in Normal Voice Common Edit. See page 61. Please note that the Element Switch parameter is not available in Drum Voice Common edit.

## Effect settings—[F6] Effect

### Effect Connection Settings—[SF1] Connect

This display gives you comprehensive control over the effects. The functions on this display are basically same as in Normal Voice Common Edit (page 64). The different point is that the Insertion Effect Out parameter is set not for each Element but for each Drum Key. In addition to that, three more parameters (14 – 16) are available.



### 1 Out (Insertion Effect Out)

Determines which Insertion Effect (A or B) is used to process each individual Drum Key. Parameters can be set for each Drum Key. When INSERTION CONNECT (2) is set to “ins L,” the signal from each Drum Key is output to the Insertion L regardless of the setting here.

**Settings:** thru (through), Ins A (Insertion A), Ins B (Insertion B)

Parameters 2 – 13 are same as the ones on the Connect display (page 64) in the Normal Voice Edit mode.

### 14 Key

Determines the Drum Key to be edited. The Insertion Effect Out (1), Key Reverb Send (15) and Key Chorus Send (16) can be set for each Drum Key.

**Settings:** C0 – C6

### 15 REV SEND (Key Reverb Send)

Determines the level of the Drum key sound (the bypassed signal) that is sent to Reverb effect. The setting here is available only when the Insertion Effect Out parameter (1) is set to “thru.”

**Settings:** 0 – 127

**NOTE** When the Insertion Effect Out parameter (1) is set to “Ins A” or “Ins B,” you can determine the level of the Drum Key sound (output from Insertion Effect A or B) that is sent to the Reverb effect by setting the value of the Insertion Reverb Send parameter indicated only in this case.

### 16 CHO SEND (Key Chorus Send)

Determines the level of the Drum key sound (the bypassed signal) that is sent to Chorus effect. The setting here is available only when the Insertion Effect Out parameter (1) is set to “thru.”

**Settings:** 0 – 127

**NOTE** When the Insertion Effect Out parameter (1) is set to “Ins A” or “Ins B,” you can determine the level of the Drum Key sound (output from Insertion Effect A or B) that is sent to the Chorus effect by setting the value of the Insertion Chorus Send parameter indicated only in this case.

### Effect Parameter settings—[SF2] Ins A – [SF5] Chorus

This is the same as in Normal Voice Common Edit. See page 66.

# Key Edit parameters

[VOICE] → Drum Voice selection → [EDIT] → Key selection

If you wish to edit the sounds that make up a Voice and the basic parameters that determine the sound, such as Oscillator, Pitch, Filter, Amplitude, and EG (Envelope Generator), call up the Key Edit display.

## About the asterisk (\*) marks

For users who are new to Voice editing and may be confused by the large amount of parameters, the most basic and easy-to-understand parameters are conveniently marked with asterisks in this section. If you are just starting out with Voice editing, try these parameters first.

## Setting the wave and note range of the Key—[F1] Oscillator

This display lets you set the Waveform and Note range of the selected Key.



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details, see page 37.

### 1 Key\*

Determines the Drum Key to be edited. You can select the desired percussion instrument by pressing the note.

**Settings:** C0 – C6

### 2 Element Switch\*

Determines whether the currently selected Key is used or not. When this is set to off, the currently edited Key will not sound.

**Settings:** off (inactive), on (active)

### 3 Wave Bank (Waveform Bank)\*

Determines the Waveform Bank assigned to the Drum Key. You can select the Bank from PRE, USR, FL1 and FL2. PRE (Preset Bank) includes the preset Waveforms while USR (User Bank), FL1 (Bank stored at slot 1 of the optional Flash Memory Expansion Module) and FL2 (Bank stored at slot 2 of the optional Flash Memory Expansion Module) include the User Waveforms created based on the samples recorded in the Sampling mode. FL1 and FL2 are available only when the optional Flash Memory Expansion Module FL512M/FL1024M has been installed.

**Settings:** PRE, USR, FL1, FL2

**NOTE** For details about Waveform, refer to the explanation of the Sampling Mode on page 119.

### 4 Wave Main Category (Waveform Main Category)\*

### 5 Wave Sub Category (Waveform Sub Category)\*

It is easier to find desired Waveforms (6) by setting these parameters before selecting a Waveform number. Preset Waveforms are categorized into Main and Sub. The number of Sub Categories differs depending on each Main Category.

### 6 Wave Number (Waveform Number)\*

Determines the Waveform assigned to the Drum Key by selecting the Waveform Category and Number. For a complete list of Waveforms in the Preset Bank, refer to the Waveform List in the separate Data List.

### 7 Assign Mode\*

When this is set to “single,” double playback of the same note is prevented. This is useful when two or more instances of the same note are received nearly simultaneously, or without a corresponding note off message. To allow playback of each instance of the same note, set this to “multi.” In general, you should probably set this to “multi”—especially for tambourine and cymbal sounds that you would want to ring out to their full decay, when playing them multiple times in succession. Please keep in mind that the “multi” setting consumes the overall polyphony and it may cause sounds to be cut off.

**Settings:** single, multi

#### single

When this is set to “single” and double playback of the same note are transmitted to the internal tone generator, the first note will be stopped then the next note will be sounded.

#### multi

When this is set to “multi” and double playback of the same note are transmitted to the internal tone generator, all the notes are sounded simultaneously.

### 8 Receive Note Off

Determines whether or not the selected Drum Key responds to MIDI Note Off messages. This should be set to on when the selected Drum Key has a sustained, non-decaying sound (such as a snare roll), so that you can stop the sound by releasing the note.

**Settings:** off, on

**9 Alternate Group\***

Determines the Alternate Group to which the key is assigned. In a real drum kit, some drum sounds cannot physically be played simultaneously, such as open and closed hi-hats. You can prevent keys from playing back simultaneously by assigning them to the same Alternate Group. Up to 127 Alternate Groups can be defined. You can also select “off” here if you wish to allow the simultaneous playback of sounds.

**Settings:** off, 1 – 127

**10 Ins Effect Output (Insertion Effect Output)**

Determines which Insertion Effect (A or B) is used to process each individual Drum Key. This parameter is same as the Ins Effect Output in the Connect display (page 64) in Voice Common Edit. Making a setting here automatically changes the setting of that parameter as well.

When INSERTION CONNECT is set to “ins L” in the Connect display, Insertion L is used to process each individual Drum Key, even if “ins A” or “ins B” is selected.

**Settings:** thru (through), ins A (Insertion Effect A), ins B (Insertion Effect B)

**11 Reverb Send\***

Determines the level of the Drum Key sound (the bypassed signal) that is sent to Reverb effect. This is available only when Insertion Effect Output (above) is set to “thru.” The setting made here will be applied to the same parameters in the Connect display (page 64) of the Voice Common Edit.

**Settings:** 0 – 127

**12 Chorus Send\***

Determines the level of the Drum Key sound (the bypassed signal) that is sent to Chorus effect. This is available only when Insertion Effect Output (above) is set to “thru.” The setting made here will be applied to the same parameters in the Connect display (page 64) of the Voice Common Edit.

**Settings:** 0 – 127

**13 Output Select**

Determines the specific output(s) for the individual Drum key signal. You can assign each individual Drum Key sound to be output from a specific hardware output jack on the rear panel. This parameter is useful when you wish to apply a connected external effect to a specific drum instrument. The setting here is available only when the Insertion Effect Output parameter (10) is set to “thru.”

**Settings:** See the table below.

LCD	Output jacks	Stereo/Mono
L&R	OUTPUT L and R	Stereo
asL&R	ASSIGNABLE OUTPUT L and R	Stereo
FW1&2	FW OUTPUT 1 and 2	Stereo (1: L, 2: R)
FW3&4	FW OUTPUT 3 and 4	Stereo (3: L, 4: R)
FW5&6	FW OUTPUT 5 and 6	Stereo (5: L, 6: R)
FW7&8	FW OUTPUT 7 and 8	Stereo (7: L, 8: R)
FW9&10	FW OUTPUT 9 and 10	Stereo (9: L, 10: R)

LCD	Output jacks	Stereo/Mono
FW11&12	FW OUTPUT 11 and 12	Stereo (11: L, 12: R)
FW13&14	FW OUTPUT 13 and 14	Stereo (13: L, 14: R)
asL	ASSIGNABLE OUTPUT L	Mono
asR	ASSIGNABLE OUTPUT R	Mono
FW1	FW OUTPUT 1	Mono
:	:	:
FW14	FW OUTPUT 14	Mono

**NOTE** The FW settings (FW1 –14) are available only when the optional FW16E is installed.

**14 Coarse (Pitch Coarse Tuning)\***

Determines the pitch of each Drum Key in semitones.

**Settings:** -48 semi – +0 semi – +48 semi

**15 Fine (Pitch Fine Tuning)\***

Determines the pitch of each Drum Key in cent.

**Settings:** -64 cent – +0 cent – +63 cent

**16 Pitch Velocity Sens (Pitch Velocity Sensitivity)**

Determines how the pitch of the Drum Key responds to velocity. Positive settings will cause the pitch to rise the harder you play the keyboard. A setting of 0 will cause the pitch not to change. Negative settings will cause the pitch to rise the more softly you play the keyboard.

**Settings:** -64 – +0 – +63

**17 [SF5] PageHold**

Normally in the Drum Voice Edit mode, pressing a note on the keyboard alternates the key (instrument) being edited automatically. When the [SF5] PageHold button is turned on, the key (instrument) being edited is maintained even if you press any other note on the keyboard. This allows you to edit a certain key while adjusting the level balance between the key being edited and the other keys.

## Adjust the brightness using the Filter—[F3] Filter

Each Drum Key has its own independent low pass filter and high pass filter. You can adjust the tonal characteristics of each drum sound by setting the Cutoff Frequency and Resonance.



### 1 Cutoff\*

Raises or lowers the cutoff frequency of the low pass filter to adjust the tone brilliance. The sound can be brightened by raising the cutoff frequency, and darkened or muffled by lowering it.

**Settings:** 0 – 255

### 2 Cutoff Velocity Sens (Cutoff Velocity Sensitivity)\*

Determines how the Cutoff Frequency responds to velocity, or the strength with which you play notes. Positive settings will cause the Cutoff Frequency to rise the harder you play the keyboard. A setting of 0 will cause the Cutoff Frequency not to change depending on velocity. Negative settings will cause the Cutoff Frequency to rise the more softly you play the keyboard.

**Settings:** -64 – +0 – +63

### 3 Resonance\*

Determines the emphasis given to the Cutoff Frequency to add further character to the sound. Higher values result in a more pronounced effect.

**Settings:** 0 – 127

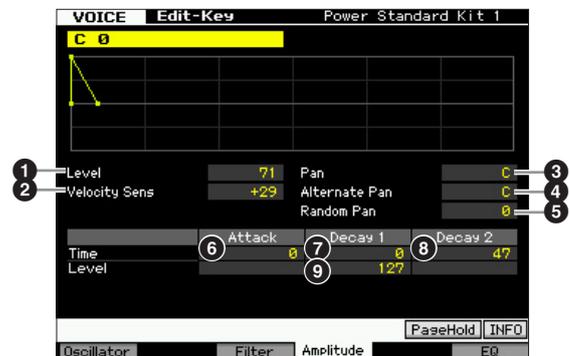
### 4 HPF Cutoff (High Pass Filter Cutoff Frequency)\*

Determines the Cutoff Frequency of the High Pass Filter.

**Settings:** 0 – 255

## Amplitude settings—[F4] Amplitude

From the following displays, you can set various parameters for the selected Drum Key, such as Volume, Pan, and Amplitude EG.



### 1 Level\*

Determines the output level of the Drum Key.

**Settings:** 0 – 127

### 2 Velocity Sens (Velocity Sensitivity)\*

Determines how the output level of the Drum Key responds to velocity. Positive settings will cause the output level to rise the harder you play the keyboard. A setting of 0 will cause the output level not to change. Negative settings will cause the output level to rise the more softly you play the keyboard.

**Settings:** -64 – +0 – +63

### 3 Pan\*

Adjusts the stereo pan position of the sound.

**Settings:** L63 (far left) – C (center) – R63 (far right)

### 4 Alternate Pan

Determines the amount by which the sound is panned alternately left and right for each note you press, assuming the pan position set above as center. Higher values increase the width of the Pan range.

**Settings:** L64 – C – R63

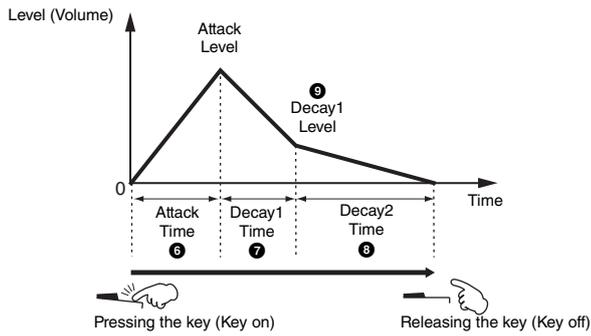
### 5 Random Pan

Determines the amount by which the sound of the selected Drum Key is panned randomly left and right for each note you press. The Pan setting (above) is used as the Center Pan position.

**Settings:** 0 – 127

## Amplitude EG

Using the AEG, you can control the transition in volume from the moment the sound starts to the moment it stops.



### Time\*

The Time parameters let you set the time between the adjoining points of the level parameters below. A higher value results in a longer time until reaching the next level.

**Settings:** 0 – 127 (0 – 126, hold for Decay 2 Time)

#### 6 Attack Time

Determines how long it takes for the sound to reach full volume (Attack Level) when a note is pressed.

#### 7 Decay 1 Time

Determines how long it takes for the sound to fall from the Attack Level to the Decay1 Level after the note is pressed.

#### 8 Decay 2 Time

Determines how quickly the sound decays from the Decay1 Level to silence after the note is released.

### Level\*

The Level parameter lets you set the AEG level.

**Settings:** 0 – 127

#### 9 Decay 1 Level

Determines the level which the AEG level reaches from the Attack Level after the Decay1 time elapses.

---

## Equalizer (EQ) Settings—[F6] EQ

---

From this display, you can set the EQ parameters for each Drum Key.

This is the same as in Normal Voice Common Edit. See page 83.

# Voice Job—Convenient Functions

The Voice Job mode features some convenient data organization and initialization tools, for use when creating Voices and archiving them.

## Voice Job—Basic Operation

- 1 In the Voice mode, press the [JOB] button to enter the Voice Job mode.**
- 2 Press one of the [F1] to [F4] buttons to call up the desired Job display.**
- 3 Move the cursor to the desired parameter, then set the value.**  
Set the parameters for executing the Job.
- 4 Press the [ENTER] button. (The display prompts you for confirmation.)**  
To cancel the Job, press the [DEC/NO] button.
- 5 Press the [INC/YES] button to execute the Job.**  
After the Job has been completed, a “Completed” message appears and operation returns to the original display.
- 6 Press the [VOICE] button to return to the Voice Play mode.**

### NOTICE

Even if you execute the Job, selecting a different Voice or turning the power off without storing will erase the Voice data. Make sure to store the Voice data to internal memory by pressing the [STORE] button before selecting a different Voice or turning the power off.

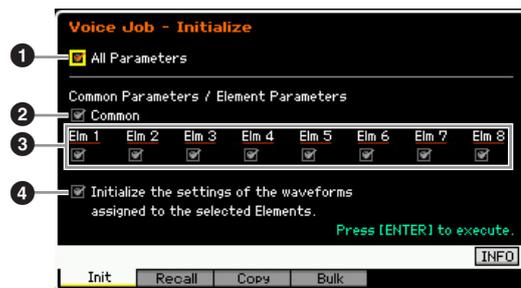
## Initializing the Voice—[F1] Init (Initialize)

This function lets you reset (initialize) all Voice parameters to their default settings. You can also selectively initialize certain parameters, such as Common settings, settings for each Element/Drum Key, and so on.

This function is very useful when creating a completely new Voice from scratch.

The parameters available for initializing will vary depending on the type of Voice currently selected (Normal/Drum).

### When a Normal Voice is selected:



#### 1 All Parameters

If you place a checkmark here, all the parameters of the selected Voice will be initialized.)

#### 2 Common Parameters

If you place a checkmark here, all the Common Edit parameters of the selected Voice will be initialized.

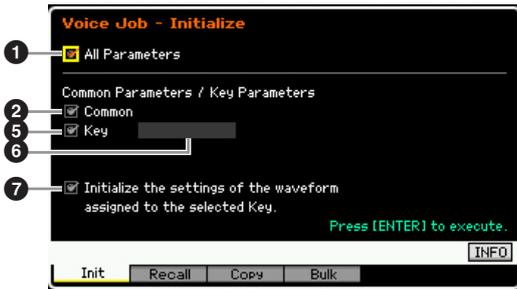
#### 3 Element Parameters 1 – 8

If you place a checkmark here, all the Element Edit parameters of the selected Element will be initialized.

#### 4 Initialize the settings of the waveforms assigned to the selected Elements.

If you place a checkmark here, all the Waveform settings of the selected Element will be initialized.

**When a Drum Voice is selected:**



**5 Key Parameters**

If you place a checkmark here, all the Key Edit parameters of the selected Key will be initialized.

**6 Drum Key**

Determines the Drum Key to be initialized.

**Settings:** C0 – C6

**7 Initialize the settings of the waveform assigned to the selected Key.**

If you place a checkmark here, all the Waveform settings of the selected Drum Key will be initialized.

**Edit Recall—[F2] Recall**

If you are editing a Voice but you have not stored it before switching to another Voice, the edits you have made will be cleared. If this happens, you can use the Recall function to restore the Voice with your latest edits intact.

**Copying another Voice Element to the current one—[F3] Copy**

From this window you can copy Common and Element/Drum Key parameter settings from any Voice to the Voice you are editing. This is useful if you are creating a Voice and wish to use some parameter settings from another Voice. When Current Voice (2) is set to on, you can copy the parameter settings from an Element to a different Element of the same Voice.



**1 Voice as source**

Determines the Bank and the Voice number to be copied. The available parameters will vary depending on the type of Voice currently selected (Normal/Drum). This parameter cannot be set when the Current Voice (2) is turned on.

**2 Current Voice**

When this is set to on, the currently selected Voice (the one you are editing now) is selected as source. Accordingly, you can copy the parameter settings from an Element to the different Element of the same Voice.

**3 Data type of the source Voice**

Determines the source data type including the Element number or Drum Key. The available parameters will vary depending on the type of Voice currently selected (Normal/Drum).

**Settings:** common, element 1 – 8 (Normal Voice), key C9 – C6 (Drum Voice)

**4 Data type of the destination Voice**

Determines the destination data type including the Element number or Drum Key. The available parameters will vary depending on the type of Voice currently selected (Normal/Drum).

When the data type of the source Voice (above) is set to “common,” this parameter will be fixed to “common.”

**Settings:** common, element 1 – 8 (Normal Voice), key C9 – C6 (Drum Voice)

**Transmitting the Voice data via MIDI (Bulk Dump)—[F4] Bulk (Bulk Dump)**

This function lets you send your edited parameter settings for the currently selected Voice to a computer or another MIDI device for data archiving. To execute the Bulk Dump operation, press the [ENTER] button.

**NOTE** In order to execute Bulk Dump, you will need to set the correct MIDI Device Number. For details, see page 228.

**NOTE** The Bulk Dump data includes only the MIDI messages and does not include the Waveforms.

# Playing in the Performance Mode

The Performance mode is used for selecting, playing, and editing the desired Performance. Performances can be made up of a maximum of four Parts (Voices), selected from the internal tone generator Parts 1 – 4. The Performance Play mode is the main 'portal' by which you enter the Performance mode, and it is here where you select and play a Performance. Some of the Performance settings can also be edited in this mode. To call up the Performance Play display and enter the Performance mode, simply press the [PERFORM] button.

## Selecting a Performance

The MOTIF XF contains 128 Performances in each of the User Banks 1 – 4.

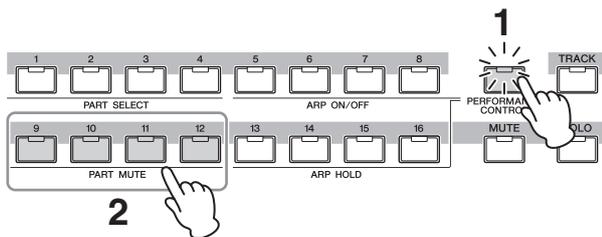
Selecting a Performance is done in basically the same way as selecting a Voice (see page 44). As in the Voice Play mode, you can use the Category Search and Favorite Category (page 45) functions in the Performance Play mode. Note that the Category function in the Performance mode does not allow you to use the Bank/Group/Number buttons.

## Switching a Part on/off

The Performance Play mode lets you turn the four Parts of the current Performance on or off as desired. You can enable this by pressing the [PERFORM] button to enter the Performance Play mode.

### Turning specific Parts on/off (Mute function)

You can turn individual Parts on/off by using the Mute function.



#### 1 Press the [PERFORMANCE CONTROL] button.

The PERFORMANCE CONTROL lamp lights, indicating that each Part can be turned on/off.

#### 2 Press any of the Number buttons [9] – [12].

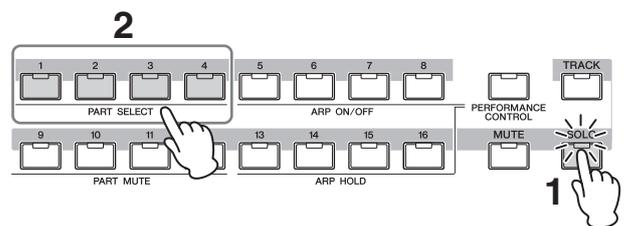
The lamp of the pressed button will be turned off and the corresponding Part will be muted. Press the same button again to turn the lamp on and disengage the mute function for that Part. You can turn multiple Parts on/off by pressing their buttons.

**NOTE** Parts can also be muted by using the [MUTE] and [PART SELECT] buttons. Press the [MUTE] button (the lamp

lights), then use the appropriate Number buttons [1] – [4] to mute and unmute the desired Part.

## Soloing a specific Part

The Solo function is the opposite of Mute, and lets you instantly solo a specific Part and mute all others.



#### 1 Press the [SOLO] button.

The SOLO lamp lights, indicating that Solo is enabled.

#### 2 Press any of the Number buttons [1] – [4].

The lamp of the pressed button will flash and only the corresponding Part will be sounded.

Press any other Number button to change the solo Part.

**NOTE** To exit from the Mute and Solo conditions, press the [TRACK] or [PERFORMANCE CONTROL] button.

## Using the Arpeggio Function

The Arpeggio function lets you trigger rhythm patterns, riffs and phrases using the current Voice by simply playing notes on the keyboard. In the Performance mode, each of four Arpeggio types is assigned to each of four Parts. This means four Arpeggio types can be played back simultaneously. Try selecting different Performances and check out the various Arpeggio types.

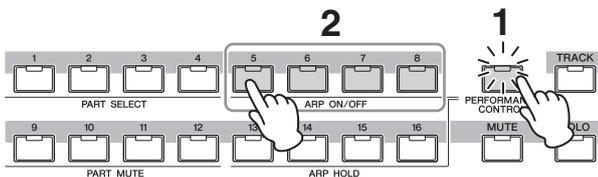
**NOTE** For details about Arpeggio, see page 15.

### Using the Arpeggio Function in the Performance mode

Since the preset Performances already have their own Arpeggio types pre-assigned, you can play the Arpeggio by selecting the desired Performance, turning on the [ARPEGGIO ON/OFF] button, then pressing any note. Instructions on using Arpeggio are basically the same as in the Voice mode.

## Turning Arpeggio playback on/off for each Part

You can turn Arpeggio playback on or off for each Part of the Performance as described below.



### 1 Press the [PERFORMANCE CONTROL] button.

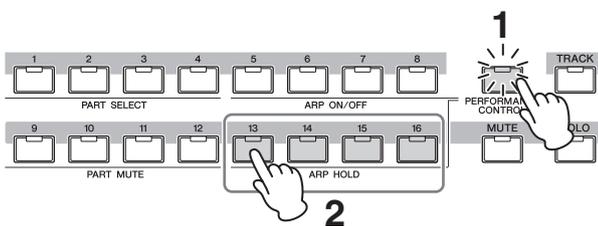
The [PERFORMANCE CONTROL] lamp lights, indicating that Arpeggio playback for each Part can be turned on/off.

### 2 Pressing each of the [5] – [8] buttons toggles the Arpeggio playback on and off for each Part.

If any of the [5] – [8] lamps is turned off, the Arpeggio playback of the corresponding Part is muted.

## Turning the Arpeggio Hold parameter on/off for each Part

You can turn the Arpeggio Hold parameter (page 112) on or off for each Part of the Performance as described below. When the Arpeggio Hold parameter is set to “on,” the Arpeggio playback continues even if the note is released.



### 1 Press the [PERFORMANCE CONTROL] button.

The [PERFORMANCE CONTROL] lamp lights, indicating that Arpeggio Hold for each Part can be turned on/off.

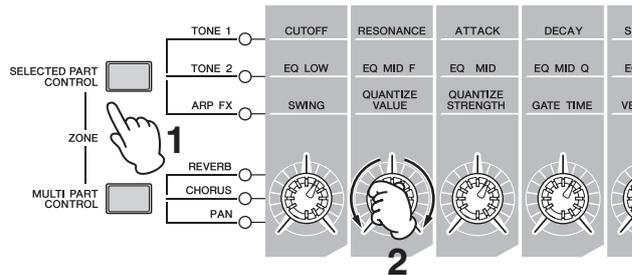
### 2 Pressing each of the [13] – [16] buttons toggles the Arpeggio Hold parameter on and off for each Part.

If any of the [13] – [16] lamps is turned on, the Arpeggio Hold parameter of the corresponding Part is turned on.

**NOTE** When the Arpeggio Hold parameter is set to “sync-off” in the Arpeggio Main display (page 112), pressing each of the [13] – [16] buttons switches the Arpeggio Hold setting between on and sync-off.

## Using Knobs

One of the more powerful performance features of the MOTIF XF is its extensive set of real-time controls—especially the Knobs and Control Sliders. These let you adjust a variety of parameters for the current Performance, such as effect depth, attack/release characteristics, tonal color, and others. These real-time controls can be used to change the sound as you play or to quickly edit and customize the Performance. One of six functions can be assigned to each knob, alternatively selected via the [SELECTED PART CONTROL] button and the [MULTI PART CONTROL] button.



### 1 Select the function setting to be assigned to the Knobs.

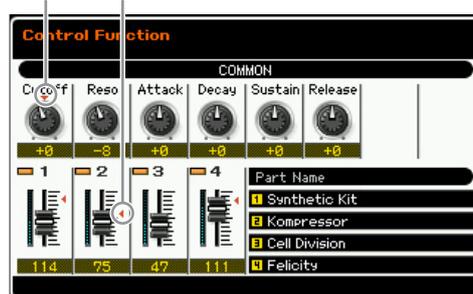
Press the [SELECTED PART CONTROL] button or [MULTI PART CONTROL] button several times to select the function setting to be assigned to the Knobs. Each time either button is pressed, the lamp lights alternatively in descending order, TONE 1 → TONE 2 → ARP FX (when pressing [SELECTED PART CONTROL]) or REVERB → CHORUS → PAN (when pressing [MULTI PART CONTROL]). The functions assigned to the Knobs are changed according to the lamp status.

**NOTE** To check which functions are currently assigned to the Knobs, call up the Control Function window by pressing the [SELECTED PART CONTROL] button or [MULTI PART CONTROL] button.

**NOTE** Holding down the [SELECTED PART CONTROL] button for a few seconds will alternate the lit lamp from the current one to TONE 1. Likewise, holding down the [MULTI PART CONTROL] button for a few seconds will alternate the lit lamp from the current one to REVERB.

**NOTE** A red point on the Knob or Slider graphic indicates the current value to which the Knob or Slider is set. Moving the Knob or Slider has no effect on the sound until this point is reached. Once you move the Knob or Slider past this point, the red point disappears and moving the Knob or Control Slider affects the sound.

Red point (indicating the current value)



## 2 Change the tonal color.

Moving the Knobs changes various aspects of the Voice's sound in real time—while you play. When one of the TONE 1, TONE 2 or ARP FX lamps are lit, the eight Knobs are used to control the corresponding functions as printed on the panel (the same as in the Voice mode). For details, see page 46. When one of the REVERB, CHORUS or PAN lamps are lit, the following functions are assigned to the four leftmost Knobs.

Active lamp	Functions of the left four knobs
REVERB	Adjusts the reverb depth for Parts 1 – 4
CHORUS	Adjusts the chorus depth for Parts 1 – 4
PAN	Adjusts the pan position for Parts 1 – 4

**NOTE** If the [E] (Edit) indicator appears at the top right of the display when you adjust the Knobs, the current Performance can be stored (page 101) as a new User Performance.

### Changing a Part to be controlled

You can change a Part to be controlled by Knob operations via the following instructions.

**1 Turn the [PERFORMANCE CONTROL] lamp on by pressing the [SELECTED PART CONTROL] button to call up the Control Function window.**

**2 Select the desired Part by pressing the [1] – [4] buttons and [COMMON EDIT] button.**

By pressing the [COMMON EDIT] button, Knob operations except for “ASSIGN 1” and “ASSIGN 2” will be applied to all four Parts. By pressing the one of the [1] – [4] buttons, Knob operations will be applied only to the selected Part.

**NOTE** If the Control Function window cannot be called up (from some display) and you wish to change a Part, press the [PERFORMANCE CONTROL] button (the lamp lights), then press one of the [1] – [4] and [COMMON EDIT] buttons.

## Using Sliders

The far left four sliders adjust the volume for each of four Parts. Each of the Control Sliders 1 – 4 corresponds to the same numbered Part. The status of the sliders is shown on the display.

## The Performance Play display—[F1] Play

You can call up the Performance Play display by pressing the [PERFORM] button.

### Type 1 of the Performance Play display



### Type 2 of the Performance Play display



#### 1 Performance Bank

#### 2 Performance Number (Group/Number)

Indicates the Bank and Number of the selected Performance. A Bank is a memory location that includes data of 128 different Performances. Four Banks (User 1 – 4) are provided. Each Performance within a Bank is assigned to a Performance Number of 001 to 128. Performance Numbers 001 to 128 are converted to the format (shown in parentheses) of Banks A to H and Numbers 1 to 16 (for the Bank). This format corresponds to the Group buttons [A] – [H] and the Number buttons [1] – [16]. The Performance Numbers and the corresponding Group/Numbers are listed below.

Group/Number	Performance Number
A01 – 16	001 – 016
B01 – 16	017 – 032
C01 – 16	033 – 048
D01 – 16	049 – 064
E01 – 16	065 – 080
F01 – 16	081 – 096
G01 – 16	097 – 112
H01 – 16	113 – 128

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode  
Reference

**3 Category (Main Category <Sub Category>)**

Indicates the Category of the selected Performance. “Category,” consisting of Main Category and Sub Category, is a keyword that indicates the instrument characteristics or the type of sound. Each Performance can be registered to a Main Category and its Sub Category. The Category settings can be edited in the General display (page 102) of the Performance Common Edit mode.

**4 Performance name**

Indicates the name of the current Performance.

**5 Transmit Ch (MIDI Transmit Channel)**

Indicates the Keyboard MIDI transmit channel. For information about how to set the value, see page 47.

**6 Octave**

Indicates Keyboard Octave setting set via the OCTAVE buttons. This parameter determines how much higher or lower the pitch of each key is compared to normal pitch.

**7 Control Function**

Indicates the status of the Knobs and Control Sliders on the panel. This is same as the Control Function window (page 94).

**8 Voice name**

Indicates the names of the Voices assigned to Parts 1 – 4.

**9 [SF1] ARP1 – [SF5] ARP5 (Arpeggio 1 – 5)**

The Arpeggio types are assigned to the buttons with the 8th note icon on the display tab. You can call them up by pressing these buttons any time during your keyboard performance. Assigning Arpeggio types to the buttons can be done from the Arpeggio display (page 98).

**10 [SF6] TAP**

The speed at which you press this button several times will determine the playback tempo of the Arpeggio.

**11 [F1] Play**

Pressing this button returns from the previous display to the Performance Play display.

**12 [F2] Voice**

Pressing this button calls up the display (page 97) that lets you select a Voice for each Part and specify the note range it can be played from.

**13 [F3] EG (Envelope Generator)**

Pressing this button calls up the display (page 97) that contains the basic EG settings.

**14 [F4] Arpeggio**

Pressing this button calls up the display (page 98) that lets you set the Arpeggio related parameters.

**15 [F6] Effect**

Pressing this button calls up the Effect setup display (page 107) of the Performance Common Edit.

**16 Arpeggio tempo**

Indicates the tempo of the current Arpeggio playback tempo.

**17 Volume**

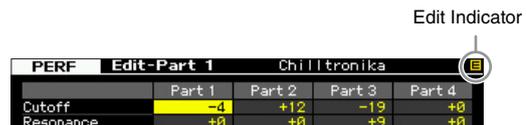
Indicates the volume value for each Part.

**18 Note Range / Note Limit**

Indicates the note range or note limit within which you can play the Voice assigned to each Part.

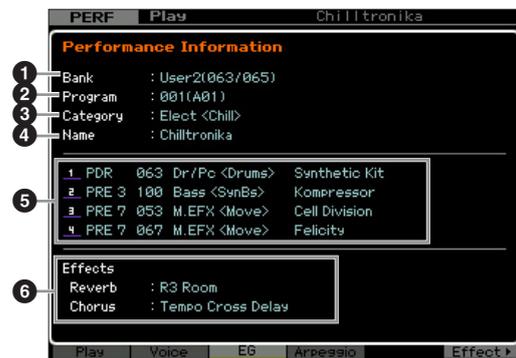
**The [E] Indicator**

When changing the value of the parameter in the Performance Play or Edit mode, the [E] (Edit Indicator) will appear on the top right corner of the LCD display. This gives a quick confirmation that the current Performance has been modified but not yet stored. To store the current edited status, follow the instructions on page 101.



**Performance information—[SF6] INFO (Information)**

This window, which can be called up from the [F2] Voice – [F4] Arpeggio display, indicates the information of the current Performance. Settings cannot be changed here.



**1 Bank**

Indicates the Bank of the selected Performance program. The values in parentheses indicates the Bank Select MSB and LSB which can be used to select the current Voice via MIDI.

## 2 Program (Performance number)

To each Performance within a Bank, a Number of 001 to 128 is assigned. The values in parentheses indicates Group and Number.

## 3 Category

Indicates the Category of the selected Performance.

## 4 Name

Indicates the name of the current Performance.

## 5 Part 1 – 4

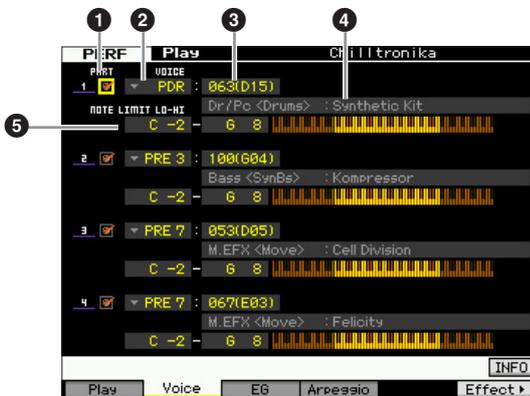
Indicates the Bank, Number, Main Category 1/2, and name of the Voice which is assigned to each Part.

## 6 Effects

Indicates Reverb and Chorus settings of the selected Performance.

## Parameters for the Voice assigned to each Part—[F2] Voice

This display lets you specify the Voice and its note range of each Part. The setting made here will be applied to the same parameters in the Voice display (page 109) of Part Edit.



### 1 PART (Part Switch)

Determines whether the Part is used (on) or not used (off).

### 2 Voice Bank

### 3 Voice Number

### 4 Voice Name

Determines the Voice Bank and Number for each Part. The two category names of the selected Voice are shown at the Voice name column.

### 5 NOTE LIMIT LO-HI

Determines the lowest and highest notes in the Part's note range. You can also create a lower and an upper range for the Voice, with a note range "hole" in the middle, by specifying the highest note first. For example, setting a Note Limit of "C5 – C4" lets you play the Voice from two

separate ranges: C -2 to C4 and C5 to G8. Notes played between C4 and C5 do not play the selected Voice.

**Settings:** C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

## Changing the tonal characteristics—[F3] EG (Envelope Generator)

This display lets you set the EG (Envelope Generator) and Filter. The settings made here will be applied to the same parameters in the EG display (page 115) of Part Edit as offset.



### 1 AEG (Amplitude EG)

Determines the transition in volume from the moment a key is pressed to the moment at which it is released. The AEG consists of four parameters: Attack time, Decay time, Sustain level, and Release time. For details, see page 51.

**Settings:** -64 – +0 – +63

### 2 FEG (Filter EG)

Determines the transition in tonal brilliance from the moment a key is pressed to the moment at which it is released. The FEG consists of four parameters: Attack time, Decay time, Release time, and Depth. For details, see page 51.

**Settings:** -64 – +0 – +63

### 3 Filter

You can produce a relatively bright or darker sound by reducing or enhancing the harmonics. There are two parameters: Cutoff (Cutoff Frequency) and Reso (Resonance). For details, see page 51.

**Settings:** -64 – +0 – +63

## Arpeggio settings—[F4] Arpeggio

This display determines the basic settings of the Arpeggio. There are two types of parameters: Common parameters (Common Switch, Tempo and Sync Quantize Value indicated at the top of the display) and Part parameters (others). As for the Part parameters, five different Arpeggio types can be assigned to each of the four Parts, and are selectable with the [SF1] – [SF5] buttons. Press the appropriate [SF1] – [SF5] button to call up the desired Arpeggio/Part combination. Arpeggio related settings on the display are automatically assigned to the corresponding [SF1] – [SF5] buttons. The settings made here will be applied to the same parameters in the General Other display (page 104) of Common Edit, the Arpeggio Main display (page 112) and the Arpeggio Other display (page 114) of Part Edit.



### 1 Common Switch

Determines whether Arpeggio is on or off. When calling up the Performance for which this parameter is set to on, the [ARPEGGIO ON/OFF] button on the panel will be turned on automatically.

**Settings:** on, off

### 2 Tempo

Determines the Arpeggio Tempo. For details, refer to the Arpeggio Main display (page 112) of Part Edit.

### 3 Sync Quantize Value

Determines the actual timing at which the next Arpeggio playback starts when you trigger it while the Arpeggio of a certain Part is played back. When set to “off,” the next Arpeggio starts as soon as you trigger it. Note that the number shown at right of each value indicates the resolution in clocks.

**Settings:** off, 60 (32nd note), 80 (16th note triplet), 120 (16th note), 160 (8th note triplet), 240 (8th note), 320 (1/4 note triplet), 480 (1/4 note)

### 4 SW (Switch)

Determines whether Arpeggio is on or off for each Part.

**NOTE** When the [PERFORMANCE CONTROL] button is pressed so that its lamp is turned on, the Number buttons [5] – [8] can be used to turn the Arpeggio playback of Parts 1 – 4 on or off.

### 5 HOLD

This is the same as in the Arpeggio Main display (page 112) of Part Edit.

### 6 Voice Bank/Voice Number/Voice Name (Indication only)

Indicates the Bank, Number, and name of the Voice which is assigned to each Part. You can set them on the [F2] Voice display. Setting the Voice with ARP to “on” in the Arpeggio Main display of the Performance Part Edit mode automatically selects the Voice matching the currently selected Arpeggio Type.

### 7 BANK

### 8 CATEGORY

### 9 SUB CATEGORY

### 10 TYPE

These are the same as in the Arpeggio Main display (page 112) of Part Edit.

## Recording your keyboard performance in the Performance mode

[PERFORM] → [●] (Record)

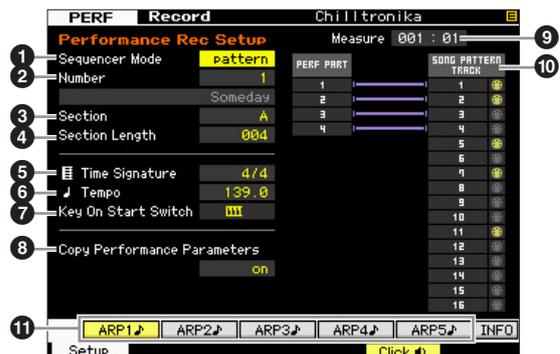
You can record your keyboard performance in the Performance mode to a Song or Pattern. Knob operations (with the exception of some parameters described on page 14), controller operations and Arpeggio playback as well as your keyboard playing in the Performance mode can be recorded to the specified track as MIDI events.

### NOTICE

**Performance recording overwrites all tracks of the destination Song or Pattern Section. Please check whether or not the destination Song or Pattern Section contains data before recording. You can check whether or not each track contains data at the track status line on the display. Select a Song or Pattern Section containing no data as the destination or save all the Song/Pattern data to the external USB memory storage device before recording.**

## Performance Recording procedure

For details, refer to the Owner's Manual.



**1 Sequencer Mode**

Determines to which destination (Song or Pattern) your Performance playing will be recorded.

**Settings:** pattern, song

**2 Pattern number (Song number)**

Determines the Pattern or Song number as the destination for recording. The name of the selected Pattern or Song is indicated at the right of the number.

**3 Section**

Determines the Section as the destination for recording when the Sequencer Mode is set to “pattern.” Keep in mind that the data recorded to the selected destination Section will be overwritten and erased as soon as recording starts.

**4 Section Length**

Specifies the length of the Section when the Sequencer Mode is set to “pattern.”

**Settings:** 001 – 256

**5 Time Signature (Meter)**

Determines the time signature.

**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

**6 Tempo**

Determines the tempo for recording. While recording, the Arpeggio is played back at the tempo set here.

**Settings:** 5.0 – 300.0

**NOTE** When MIDI Sync (page 228) is set to “MIDI” or “auto,” “MIDI” or “auto” is displayed here and Tempo cannot be set.

**NOTE** When the Sequencer Mode (1) is set to “pattern,” the Tempo setting here will be recorded to the Pattern. Even if the destination Pattern contains already recorded data, the Tempo value will be replaced by the newly recorded one. When the Sequencer Mode (1) is set to “song,” the Tempo setting here will be recorded to the Tempo track of the destination Song, if the Tempo track contains no data.

**7 Key On Start Switch**

When set to on, recording starts immediately when you press any note on the keyboard.

**Settings:**  on,  off

**8 Copy Performance Parameters**

Determines whether or not the Performance parameter settings are copied to the Mixing of the destination Song or Pattern.

**Settings:** on, off

**9 Measure (Indication only)**

Indicates the current location of the recording via Measure and Beat.

**10 Track Status (Indication only)**

Indicates whether each track of the selected Song or Pattern section contains sequence data or not.

**11 [SF1] ARP1 – [SF5] ARP5 (Arpeggio 1 – 5)**

The Arpeggio types are assigned to the Sub Function buttons with the 8th note icon on the display tab. You can call them up by pressing these buttons any time while recording. The Arpeggio Type can be set in the Arpeggio display (page 98).

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

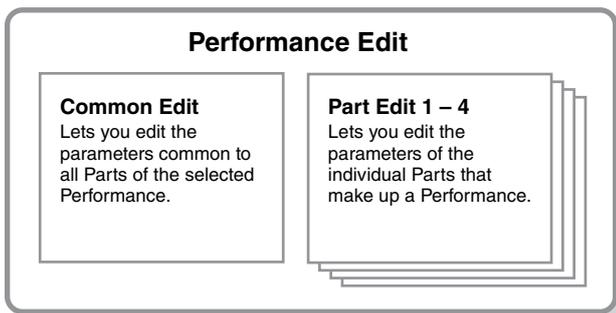
Reference

# Editing a Performance

The Performance Edit mode lets you create your own original Performances—containing up to four different Parts (Voices)—by editing the various parameters. To enter the Performance Edit mode, press the [PERFORM] button to enter the Performance mode, then press the [EDIT] button.

## Common Edit and Part Edit

Each performance can contain a maximum of four Parts, There are two types of Performance Edit displays: those for Common Edit to edit the settings common to all four Parts, and those for editing individual Parts.

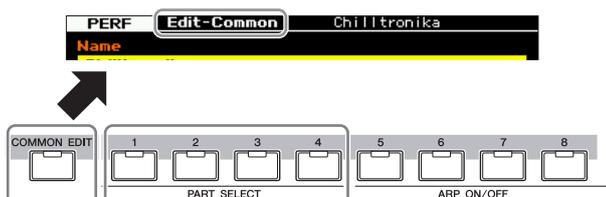


## Performance Edit Procedure

- 1 Press the [PERFORM] button to enter the Performance Play mode, then select a Performance to be edited.
- 2 Press the [EDIT] button to enter the Performance Edit mode.
- 3 Call up the desired Edit display, Common Edit or Part Edit.

To call up the Common Edit display, press the [COMMON EDIT] button. To call up the Part Edit display, press any of the Number buttons [1] – [4]. In the Part Edit mode, you can select the desired Part by using the Number buttons [1] – [4].

Indicates this display is in the Common Edit mode.



Select a Part.

Indicates this display is in the Part Edit mode.



## 4 Call up the desired display.

To find the desired display, note the tab menu items corresponding to the [F1] – [F6] buttons and [SF1] – [SF5] buttons. Each tab menu of the [F1] – [F6] buttons contains sub menus which correspond to the [SF1] – [SF5] buttons at the bottom of the display.



## 5 Move the cursor to the desired parameter.

## 6 Edit the value by using the [INC/YES], [DEC/NO] buttons and the data dial.

## 7 Repeat steps 3 – 6 as desired.

## 8 Enter the desired name for the edited Performance.

Use the Name display (page 102) of the Performance Common Edit mode.

## 9 Store the edited Performance.

Press the [STORE] button to call up the Store window (page 101) then store the edited Performance.

### NOTICE

- The edited Performance will be lost when selecting the different Performance or turning the power off. Make sure to store the Performance data to the internal memory by pressing the [STORE] button before selecting a different Performance or turning the power off.
- Because User Memory to which the Performance is stored is Flash Memory, the edited and stored Performance will not be erased even if the power is turned off. You need not worry about losing your stored data. The Performance Store operation, however, will overwrite the Performance data already stored to the destination Performance number. For this reason, important data should always be backed up to a separate USB storage device or to a computer connected via network to the MOTIF XF (page 241).

## Convenient functions for editing Performances

### Turning specific Parts on/off (Mute function)

This is the same as in the Performance Play mode (page 93).

### Soloing a specific Part

This is the same in the Performance Play mode (page 93).

### The [E] Indicator

This is the same as in the Performance Play mode. See page 96.

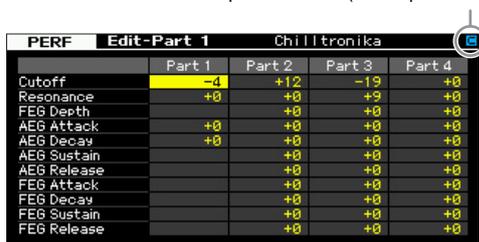
### Compare function

The Compare function lets you switch between the just-edited Performance and its original, unedited condition, allowing you to hear how your edits affect the sound.

#### 1 In the Performance Edit mode, press the [EDIT] button to call up the Compare mode.

In the Performance Edit mode (with the [EDIT] lamp lit), press the [EDIT] button so that its lamp flashes. The [E] indicator at the top right of the screen will change to the [C] indicator and the Performance settings prior to editing will temporarily be reinstated for comparison purposes. When the [E] indicator is shown in the Performance Play mode, press the [EDIT] button to enter the Performance Edit mode then press the [EDIT] button again to call up the Compare mode.

Compare indicator (sound prior to editing)



PERF	Part 1	Part 2	Part 3	Part 4
Cutoff	-4	+12	-13	+0
Resonance	+0	+0	+9	+0
FEG Depth	+0	+0	+0	+0
AEG Attack	+0	+0	+0	+0
AEG Decay	+0	+0	+0	+0
AEG Sustain		+0	+0	+0
AEG Release		+0	+0	+0
FEG Attack		+0	+0	+0
FEG Decay		+0	+0	+0
FEG Sustain		+0	+0	+0
FEG Release		+0	+0	+0

#### 2 Press the [EDIT] button again to return to the original status.

When the [C] indicator is shown at the right top of the display, press the [EDIT] button (the lamp lights continuously, and the [C] indicator changes back to the [E] indicator).

Compare the edited sound with the unedited sound as desired by repeating steps 1 and 2.

## Storing the created Performance

#### 1 Press the [STORE] button to call up the Performance Store window.



#### 2 Set the destination for storing the Performance.

Select a Performance Bank and Number as destination by using the data dial, [INC/YES] and [DEC/NO] buttons.

You can also use the [USER 1] – [USER 4], Group [A] – [H], and Number [1] – [16] buttons to specify the destination.

#### 3 Press the [ENTER] button. (The display prompts you for confirmation.)

To cancel the Store operation, press the [DEC/NO] button.

#### 4 To execute the Store operation, press the [INC/YES] button.

After the Performance has been stored, a "Completed" message appears and operation returns to the Performance Play display.

#### NOTICE

When you execute the Store operation, the settings for the destination memory will be overwritten. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF. For detailed instructions on saving, see page 241.

# Common Edit parameters

[PERFORM] → Performance selection → [EDIT] → [COMMON EDIT]

Common Edit lets you edit the parameters common to all Parts of the selected Performance. This covers all parameters of the Common Edit.

### About the asterisk (\*) marks

For users who are new to editing and may be confused by the large amount of parameters, the most basic and easy-to-understand parameters are conveniently marked with asterisks in this section. If you are just starting out with editing a Performance, try these parameters first.

## General Settings for the selected Performance—[F1] General

### Naming the edited Performance—[SF1] Name



#### 1 Name\*

Enter the desired name for the currently edited Performance. The Performance name can contain up to 10 characters. You can call up the Character List by pressing the [SF6] CHAR button and enter the name. For detailed instructions on naming, refer to “Basic Operation” on page 37.

#### 2 Main Category\*

#### 3 Sub Category\*

Determines the Main Category and Sub Category of the Performance. “Category” can be used as a keyword representing the characteristic of the Performance. The appropriate setting makes it easy to find the desired Performance from a variety of Performances. The Main Category indicates the types of instruments and is divided into Sub Categories.

**Settings:** See the following list.

### Performance Category

Main		Sub	
Rock	Rock / Pop	Top40	Top40
		Clasic	Classic Rock
		Hard	Hard Rock
		Cntry	Country
		Blues	Blues
		Folk	Folk
		Balad	Ballad
		Film	Film
		---	No Assignment
		R&B	R&B / Hip Hop
Modrn	Modern R&B		
Clasic	Classic R&B		
Funk	Funk		
---	No Assignment		
Elect	Electronic	Tekno	Techno
		Trnce	Trance
		House	Dance Pop / House
		D&B	Breakbeats / D&B
		Chill	Chillout / Ambient
		---	No Assignment
		Jazz	Jazz
Modrn	Modern Jazz		
Smoth	Smooth Jazz		
JzFnk	Jazz Funk		
Club	Club Jazz		
---	No Assignment		
World	World	Latin	Latin
		Regae	Reggae / Dancehall
		Ethno	Ethnic / World
		---	No Assignment
SpLyr	Splits & Layers	Piano	Piano
		Organ	Organ
		Synth	Synth
		Symph	Symphonic
		Strng	Strings
SpLyr	Splits & Layers	WWind	Woodwind
		Brass	Brass
		Guitr	Guitar
		Bass	Bass
		Cperc	Chromatic Percussion
		Pad	Pad
		---	No Assignment
FX	FX	Seq	Sequence
		Hard	Hard
		Soft	Soft
		S.EFX	Sound Effect
		---	No Assignment
---	No Assignment	---	No Assignment

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

Reference

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

## Portamento settings—[SF2] Porta



### 1 Portamento Common\*

Determines whether or not Portamento is applied to the current Performance. When this is set to on, Portamento is applied to the Part for which the Part Switch parameter is set to on.

### 2 Portamento Part 1 – 4\*

Determines whether Portamento is applied to each Part or not.

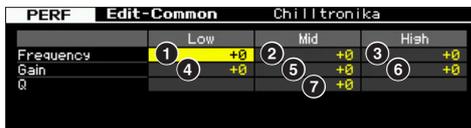
### 3 Portamento Time Offset\*

Determines the pitch transition time when Portamento is applied. You can adjust Portamento time for the Voice assigned to each Part as offset. Higher values result in a longer pitch change time.

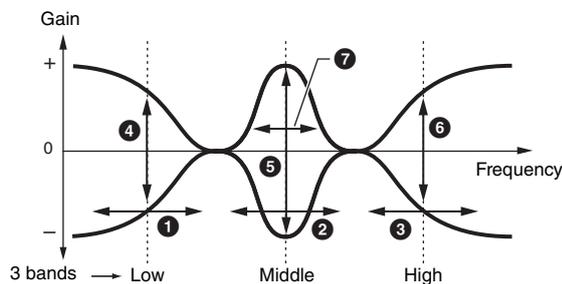
**Settings:** -64 – +63

## EQ settings for each Part—[SF3] Part EQ

From this display, you can edit the value on the [F5] EQ display (page 116) as offset to change the tonal characteristic.



This is a three-band (Low, Mid, High) parametric EQ. The High band and Low band are the shelving type. The Middle band is the peaking type.



## Frequency

Determines the center frequency. Frequencies around each of three points are attenuated/boosted by the Gain setting below. Higher values produce a higher frequency.

**Settings:** -64 – +63

### 1 Low Frequency

Determines the center frequency of the lower EQ band.

### 2 Mid Frequency

Determines the center frequency of the middle EQ band.

### 3 High Frequency

Determines the center frequency of the higher EQ band.

## Gain

Determines the level gain for each frequency (set above), or the amount the selected frequency band is attenuated or boosted.

**Settings:** -64 – +63

### 4 Low Gain

Determines the amount by which signals below the Low Frequency (1) will be boosted/attenuated.

### 5 Mid Gain

Determines the amount at which signals at the Mid Frequency (2) will be boosted/attenuated.

### 6 High Gain

Determines the amount by which signals above the High Frequency (3) will be boosted/attenuated.

### 7 Q (Bandwidth)

Determines the frequency bandwidth for each frequency band. The larger the setting, the greater the bandwidth. The lower the setting, the smaller the bandwidth.

**Settings:** -64 – +63

## Other settings—[SF4] Other

From this display, you can set the control functions for the Knobs, and the up/down range for the Pitch Bend wheel.



### 1 Knob Control Assign

Determines which lamp among the TONE 1, TONE 2, ARP FX, REVERB, CHORUS and PAN is turned on when selecting a Performance. This setting can be stored for each Performance.

**Settings:** tone1, tone2, ARP FX, reverb, chorus, pan

### 2 A. Function 1 Mode (Assignable Function 1 Mode)

### 3 A. Function 2 Mode (Assignable Function 2 Mode)

Determines whether the ASSIGNABLE FUNCTION [1] and [2] buttons functions as a latch type or momentary type. When set to “latch,” pressing the button alternates the lamp status between on and off. When set to “momentary,” pressing/holding the button turns the lamp on and releasing the button turns the lamp off.

**Settings:** momentary, latch

### 4 Ribbon Mode (Ribbon Controller mode)

Determines the behavior of the Ribbon Controller. When set to reset, releasing your finger from the Ribbon Controller automatically returns the value to the center. When set to hold, releasing your finger from the Ribbon Controller maintains the value at the last point of contact.

**Settings:** hold, reset

### 5 ARP Common Switch

Determines whether Arpeggio is on or off. This parameter is the same as the Common Switch parameter in the Arpeggio display (page 98) of the Performance Play mode.

### 6 ARP Sync Quantize Value

This parameter is the same as the Sync Quantize Value parameter in the Arpeggio display (page 98) of the Performance Play mode.

## Output Level and Master Effect settings—[F2] Level/MEF

### Output Level settings—[SF1] Level



### 1 Volume\*

Determines the output level of the entire Performance. You can adjust the overall volume, keeping the balance between all Parts.

**Settings:** 0 – 127

### 2 Pan\*

Determines the stereo pan position of the Performance. You can also adjust this parameter using the PAN knob on the front panel.

**Settings:** L63 (far left) – C (center) – R63 (far right)

**NOTE** Note that this Performance Pan parameter may have little or no audible effect if the Pan for a specific Part is set to the left position and the Pan for another Part is set to the right position.

### 3 Reverb Send\*

Adjusts the reverb send level. The higher the value the deeper the reverb. You can also adjust this parameter using the knob on the front panel.

**Settings:** 0 – 127

### 4 Chorus Send\*

Adjusts the chorus send level. The higher the value the deeper the chorus. You can also adjust this parameter using the knob on the front panel.

**Settings:** 0 – 127

**NOTE** When Reverb Send/Chorus Send is set to “0” in the Performance Part Edit mode, the setting here is not available.

### Master Effect settings—[SF2] MasterFX



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST

button, then select the desired item from the list. For details see page 37.

**1 Switch**

Determines whether Master Effect is applied or not to the selected Performance. You can turn it on or off by pressing the [MASTER EFFECT] button on the front panel.

**Settings:** on, off

**2 Type**

Selects an Effect Type. Details about the Effect types are described on page 24.

**Settings:** See the Effect Type list in the separate Data List.

**3 Preset**

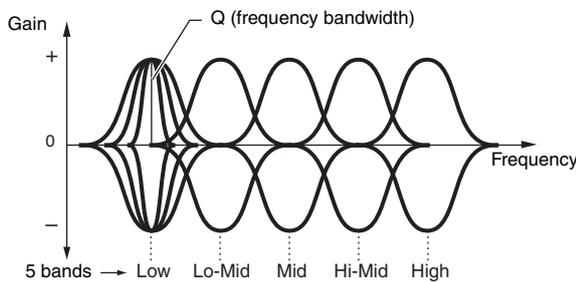
You can set various parameters in order to change how the sound is affected by the selected Effect type. This parameter lets you call up the pre-programmed settings of these effect parameters.

**4 Effect Parameters**

The number of parameters and values available differs depending on the currently selected effect type. Refer to page 27 for details about the Effect parameters. Refer to the separate Data List for information on the parameters for each Effect type.

**Master EQ settings—[SF3] MasterEQ**

From this display you can apply five-band equalization to all Parts of the selected Performance.



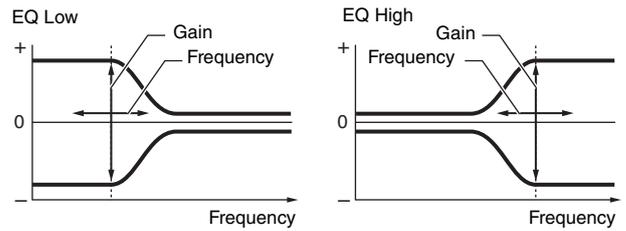
**1 Shape**

Enables you to select one of two equalizer shapes: shelving or peaking. This parameter is available for Low and High.

**Settings:** shelv, peak

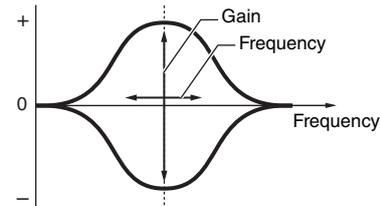
**shelv (Shelving type)**

This type of EQ shape lets you attenuate/boost the signal at frequencies above or below the specified Frequency setting.



**peak (Peaking type)**

This type of EQ shape lets you attenuate/boost the signal at the specified Frequency setting.



**2 Frequency**

Determines the center frequency. Frequencies around this point are attenuated/boosted by the Gain setting below.

**Settings:**

**Low**

When the Shape is set to "shelv": 32Hz – 2.0kHz  
 When the Shape is set to "peak": 63Hz – 2.0kHz

**Lo-Mid, Mid, Hi-Mid**

100 Hz – 10.0 kHz

**High**

500 Hz – 16.0 kHz

**3 Gain**

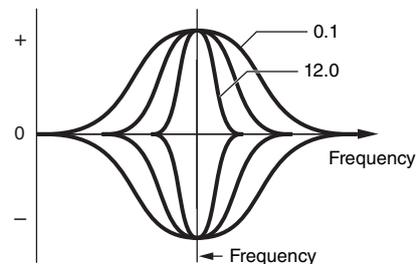
Determines the level gain for the Frequency (set above), or the amount the selected frequency band is attenuated or boosted.

**Settings:** -12dB – +0dB – +12dB

**4 Q (Bandwidth)**

This varies the signal level at the Frequency setting to create various frequency curve characteristics. The higher the setting the smaller the Q (Bandwidth). The lower the setting, the greater the Q (Bandwidth).

**Settings:** 0.1 – 12.0



**NOTE** When the Shape parameters (1) of the Low and High are set to "shelv," the Q parameters (4) of the Low and High are not available.

Voice mode  
 Performance mode  
 Sampling mode 1  
 Song mode  
 Pattern mode  
 Pattern mode  
 Mixing mode  
 Sampling mode 2  
 Master mode  
 Utility mode  
 File mode  
 Reference

## Audio In settings—[F4] Audio In

You can set parameters related to audio input from the A/D INPUT connector and the IEEE1394 connector.

**NOTE** The FW settings (FW1 –14) are available only when the optional FW16E is installed.

## Output Settings—[SF1] Output

	A/D Input	FW
1 Volume	100	100
2 Pan	C	C
3 Mono/Stereo	stereo	stereo
4 Output Select	L&R	L&R
5 Reverb Send	0	0
6 Chorus Send	0	0
7 Dry Level	127	127

### 1 Volume

Determines the output level of the Audio Input Part.

**Settings:** 0 – 127

### 2 Pan

Determines the stereo pan position of the Audio Input Part.

**Settings:** L63 (far left) – C (center) – R63 (far right)

### 3 Mono/Stereo

Determines the signal configuration for the Audio Input Part, or how the signal or signals are routed (stereo or mono).

**Settings:** L mono, R mono, L+R mono, stereo

**L mono**

Only the L channel of the audio input is used.

**R mono**

Only the R channel of the audio input is used.

**L+R mono**

The L and R channels of the audio input are mixed and processed in mono.

**stereo**

Both the L and R channels of the audio input are used.

### 4 Output Select

Determines the output jack assignment for the Audio Input Part.

**Settings:** See the table below.

LCD	Output jacks	Stereo/Mono
L&R	OUTPUT L and R	Stereo
asL&R	ASSIGNABLE OUTPUT L and R	Stereo
FW1&2	FW OUTPUT 1 and 2	Stereo (1: L, 2: R)
FW3&4	FW OUTPUT 3 and 4	Stereo (3: L, 4: R)
FW5&6	FW OUTPUT 5 and 6	Stereo (5: L, 6: R)
FW7&8	FW OUTPUT 7 and 8	Stereo (7: L, 8: R)
FW9&10	FW OUTPUT 9 and 10	Stereo (9: L, 10: R)
FW11&12	FW OUTPUT 11 and 12	Stereo (11: L, 12: R)
FW13&14	FW OUTPUT 13 and 14	Stereo (13: L, 14: R)
asL	ASSIGNABLE OUTPUT L	Mono
asR	ASSIGNABLE OUTPUT R	Mono

LCD	Output jacks	Stereo/Mono
FW1	FW OUTPUT 1	Mono
:	:	:
FW14	FW OUTPUT 14	Mono
ins L (A/D input only)	Internal Vocoder Module	Mono

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

### 5 Reverb Send

Determines the Send level of the Audio Input Part signal sent to the Reverb effect. The higher the value, the deeper the reverb.

**Settings:** 0 – 127

### 6 Chorus Send

Determines the Send level of the Audio Input Part signal sent to the Chorus effect. The higher the value, the deeper the Chorus.

**Settings:** 0 – 127

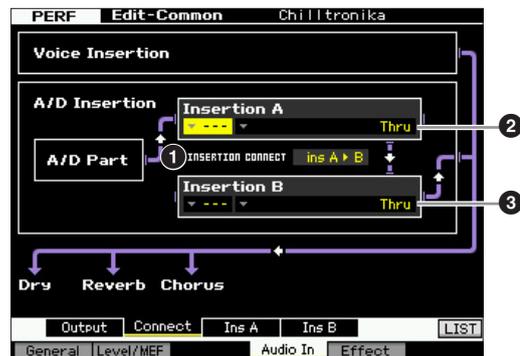
### 7 Dry Level

Determines the level of the Audio Input Part which has not been processed with the System Effects (Reverb, Chorus). The higher the value, the shallower the Reverb and Chorus.

**Settings:** 0 – 127

## Insertion Effect Connection of A/D Input —[SF2] Connect

From this display, you can set the Insertion Effect Types applied to the Audio Input signal in the Performance mode. The System Effect can be set in the Effect display (page 107). Keep in mind that the Insertion Effect cannot be applied to the audio input signal via the IEEE1394 connector.



### 1 INSERTION CONNECT (Insertion Connection)

From this display you can set the effect routing for Insertion effects A and B. The setting changes are shown on the diagram in the display, giving you a clear picture of how the signal is routed.

**Settings:** Ins A ► B, Ins B ► A

**Ins A ► B (A to B)**

Signals processed with the Insertion Effect A will be sent to the Insertion Effect B and signals processed with the Insertion Effect B is sent to Reverb and Chorus.

**Ins B ► A (B to A)**

Signals processed with the Insertion Effect B will be sent to the Insertion Effect A and signals processed with the Insertion Effect B is sent to Reverb and Chorus.

**② Insertion A (Insertion A Category/Type)\***

**③ Insertion B (Insertion B Category/Type)\***

Determines the Effect type for Insertion A and B. From the Category column, you can select one of the Effect Categories, each of which contains similar Effect types. From the Type column, you can select one of the Effect Types listed in the selected Category.

**Settings:** Details about the Effect categories and types are described on page 24.

**NOTE** You can call up the list by pressing the [SF6] LIST button then select the desired one from the list. For details, see page 37.

**Effect Parameter settings—[SF3] Ins A, [SF4] Ins B**



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details see page 37.

**① Category**

**② Type**

From the Category column, you can select one of the Effect Categories each of which contains similar Effect types. From the Type column, you can select one of the Effect Types listed in the selected Category.

**Settings:** Details about the Effect categories and types are described on page 24.

**③ Preset**

You can set various parameters in order to change how the sound is affected by the selected Effect type. This parameter lets you call up the pre-programmed settings of these effect parameters.

**④ Effect Parameters**

The number of parameters and values available differs depending on the currently selected effect type. Refer to

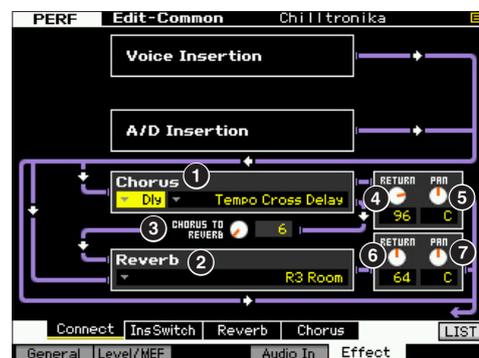
page 27 for details about the Effect parameters. Refer to the separate Data List for information on the parameters for each Effect type.

**Effect settings—[F5] Effect**

From the following displays, you can set the Effect connection and values of other parameters. For details about the structure in the Performance mode, see page 23.

**Effect Connection settings—[SF1] Connect**

This display gives you at-a-glance, overall view of the effect routing and comprehensive control over the effects.



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details see page 37.

**① Chorus (Chorus Category/Type)**

Selects a Chorus Effect type after selecting a category. From the Category column, you can select one of the Effect categories, each of which contains similar Effect types. From the Type column, you can select one of the Effect types listed in the selected category.

**Settings:** Details about the Effect categories and types are described on page 24.

**② Reverb (Reverb Type)**

Determines the Reverb Effect type. It is not necessary to select a Category because there is only one category in Reverb.

**Settings:** Details about the Effect types are described on page 24.

**③ CHORUS TO REVERB**

Determines the Send level of the signal sent from the Chorus Effect to the Reverb Effect. The higher the value, the deeper the Reverb that is applied to the Chorus-processed signal.

**Settings:** 0 – 127

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

Reference

**4 Chorus Return**

Determines the Return level of the Chorus Effect.

**Settings:** 0 – 127

**5 Chorus Pan**

Determines the pan position of the Chorus effect sound.

**Settings:** L63 (far left) – C (center) – R63 (far right)

**6 Reverb Return**

Determines the Return level of the Reverb Effect.

**Settings:** 0 – 127

**7 Reverb Pan**

Determines the pan position of the Reverb effect sound.

**Settings:** L63 (far left) – C (center) – R63 (far right)

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

**Setting the parts available for the Insertion Effect—[SF2] InsSwitch**

In this display, you can select which Parts (from Performance Parts 1 – 4 and the A/D Input Part) will be assigned to the eight Insertion Effects.

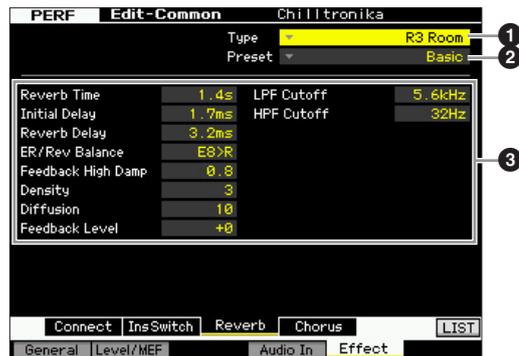


**1 Part 1 – 4, A/D**

Determines the Parts available for the Insertion Effect. When this switch is set to on, the Insertion Effect of the Voice assigned to the Part is enabled. Make sure that this parameter is set to on for any Parts/Voices to which you need to apply Insertion Effects. The MOTIF XF features eight Insertion effect systems, letting you set this parameter to on for all five Parts.

**NOTE** For the A/D Input Part, the Insertion Effect type/parameter can be set from the Insertion A/B display in the Audio In parameter of the Performance Common Edit mode. For Parts 1 – 4, the Insertion Effect type/parameter settings cannot be set in the Performance Edit mode because their settings are included in the Voice assigned to each Part. If you wish to edit the Insertion Effect settings for each Part, enter the Voice Edit mode, then edit the Effect settings for the appropriate Voice.

**Reverb and Chorus Settings—[SF3] Reverb, [SF4] Chorus**



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details see page 37.

**1 Type**

From the Type column, you can select one of the Effect Types listed in the selected Category.

**Settings:** Details about the Effect types are described on page 24.

**2 Preset**

You can set various parameters in order to change how the sound is affected by the selected Effect type. This parameter lets you call up the pre-programmed settings of these effect parameters.

**3 Effect Parameters**

The number of parameters and values available differs depending on the currently selected effect type. Refer to page 27 for details about the Effect parameters. Refer to the separate Data List for information on the parameters for each Effect type.

# Part Edit parameters

[PERFORM] → Performance selection → [EDIT] → Part selection

In the Performance Part Edit mode, you can edit the parameters of the individual Parts such as Voice, Arpeggio, EG and EQ settings.

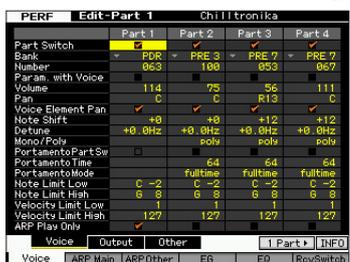
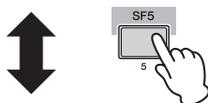
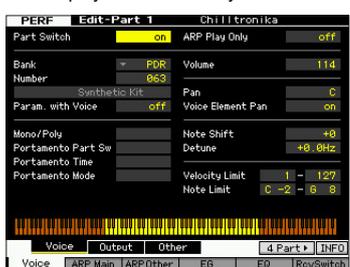
## About the asterisk (\*) marks

For users who are new to editing and may be confused by the large amount of parameters, the most basic and easy-to-understand parameters are conveniently marked with asterisks in this section. If you are just starting out with editing Performance Parts, try these parameters first.

### Selected Part display/Four-Part display

In the Performance Part Edit mode, you can use two types of display. One type of display lets you edit parameters for the currently selected Part and the other type of display lets you view parameters for four Parts. You can switch between these two types by pressing the [SF5] button. Note that the display for four Parts is not available for the [F2] ARP Main and the [F3] ARP Other displays.

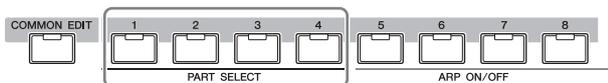
The display for the currently selected Part



The display for all four Parts of the current Performance

### Selecting a Part to be edited

After pressing the [PERFORMANCE CONTROL] or [TRACK] button so that its lamp lights, press one of the [1] – [4] buttons to select a Part to be edited.



Selecting a Part

**NOTE** For details about useful functions such as Mute/Solo and Jobs, see pages 101 and 117.

### Setting the Wave and Note range of the Part—[F1] Voice

#### Voice Settings for each Part—[SF1] Voice



#### 1 Part Switch\*

Determines whether the currently edited Part is on or off. When this is set to off, the currently edited Element will not sound.

**Settings:** off (inactive), on (active)

#### 2 Bank\*

#### 3 Number\*

Determines the Voice assigned to the current Part by specifying the Voice Bank and Number.

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

#### 4 Param. with Voice (Parameter with Voice)

Determines whether or not the following parameter settings of the selected Voice are copied from the Voice to the current Part when you change a Voice for the current Part individually.

- Arpeggio settings
- Filter Cutoff Frequency
- Filter Resonance
- Amplitude EG
- Filter EG
- Pitch Bend Range (Upper/Lower)
- Note Shift

**NOTE** Regardless of the Parameter with Voice setting (4), the settings of Mono/Poly (10), Portamento Part Switch (11), Portamento Time (12) and Portamento Mode (13) are not

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

copied when a Drum Voice is selected. However, these parameters are copied when a Normal Voice is selected.

**Settings:** off (not copied), on (copied)

### 5 Volume\*

Determines the volume for each Part. Use this parameter to adjust the balance between the current Part and other Parts.

**Settings:** 0 – 127

### 6 Pan\*

Determines the stereo pan position for the Part.

**Settings:** L63 (far left) – C (center) – R63 (far right)

**NOTE** Note that this Part Pan parameter may have little or no audible effect if the Pan for a specific Element is set to the left position and the Pan for another Element is set to the right position.

### 7 Voice Element Pan

Determines whether the individual pan settings for each Voice (made in the Voice Element Edit mode) are applied or not. When this is set to “off,” the basic pan position for the selected Part is set to center.

**Settings:** on, off

### 8 Note Shift\*

Adjusts the pitch of the Part in semitones.

**Settings:** -24 – +0 – +24

### 9 Detune

Adjusts the tuning of the Part in cent increments.

**Settings:** -12.8 Hz – +0 Hz – +12.7 Hz

### 10 Mono/Poly\*

Determines the playback method of the Voice for each Part—monophonic (single note only) or polyphonic (multiple notes).

**Settings:** mono, poly

**mono**

When set to “mono,” the selected Performance is played back monophonically (only a single note is played back simultaneously). For many instrument sounds (such as bass and synth lead), this allows a more natural and smooth sounding legato performance than when this parameter is set to “poly.”

**poly**

When set to “poly,” the selected Performance is played back polyphonically (multiple notes can be played back simultaneously or a chord is played back).

### 11 Portamento Part Sw\*

Determines whether Portamento is applied to the current Performance or not.

**Settings:** off, on

### 12 Portamento Time\*

Determines the pitch transition time. Higher values mean longer transition times.

**Settings:** 0 – 127

### 13 Portamento Mode

Determines how Portamento is applied to your keyboard performance.

**Settings:** fingered, fulltime

**fingered**

Portamento is only applied when you play legato (playing the next note before releasing the previous one).

**fulltime**

Portamento is applied to all notes.

### 14 Velocity Limit

Determines the minimum and maximum values of the velocity range within which each Part will respond. Each Part will only sound for notes played within its specified velocity range. If you specify the maximum value first and the minimum value second, for example “93 to 34,” there will be a velocity “hole” and the velocity range covered will be “1 to 34” and “93 to 127.”

**Settings:** 1 – 127

**NOTE** You can also set the velocity from the keyboard by holding down the [SF6] KBD button and pressing any key with the desired velocity (strength). For details, see page 37.

### 15 Note Limit

Set the lowest and highest notes of the keyboard range for each Part. Each Part will only sound for notes played within its specified range. You can also create a lower and an upper range for the Element, with a note range “hole” in the middle, by specifying the highest note first. For example, setting a Note Limit of “C5 – C4” lets you play the Element from two separate ranges: C -2 to C4 and C5 to G8. Notes played between C4 and C5 do not play the selected Element.

**Settings:** C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

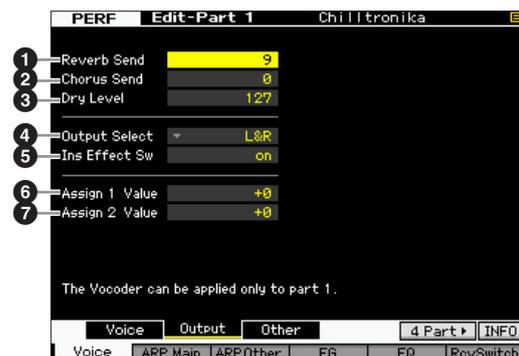
### 16 ARP Play Only

Determines whether or not the current Part only plays the MIDI note events created via Arpeggio playback. When set to on, the current Part plays only those MIDI note events generated via Arpeggio playback.

**Settings:** off, on

## Output settings—[SF2] Output

From this display, you can set the Reverb/Chorus depth and the Output jack assignment for each Part.



### 1 Reverb Send

Determines the Send level of each Part signal sent to the Reverb effect. The higher the value, the deeper the Reverb.

**Settings:** 0 – 127

### 2 Chorus Send

Determines the Send level of each Part signal sent to the Chorus effect. The higher the value, the deeper the Chorus.

**Settings:** 0 – 127

### 3 Dry Level

Determines the level of each Part which has not been processed with the System Effects (Reverb, Chorus). The higher the value, the shallower the Reverb and Chorus.

**Settings:** 0 – 127

### 4 Output Select

Determines the specific output(s) for the individual Part. You can assign each individual Part's Voice to be output from a specific hardware output jack on the rear panel.

**Settings:** See the table below.

LCD	Output jacks	Stereo/Mono
L&R	OUTPUT L and R	Stereo
asL&R	ASSIGNABLE OUTPUT L and R	Stereo
FW1&2	FW OUTPUT 1 and 2	Stereo (1: L, 2: R)
FW3&4	FW OUTPUT 3 and 4	Stereo (3: L, 4: R)
FW5&6	FW OUTPUT 5 and 6	Stereo (5: L, 6: R)
FW7&8	FW OUTPUT 7 and 8	Stereo (7: L, 8: R)
FW9&10	FW OUTPUT 9 and 10	Stereo (9: L, 10: R)
FW11&12	FW OUTPUT 11 and 12	Stereo (11: L, 12: R)
FW13&14	FW OUTPUT 13 and 14	Stereo (13: L, 14: R)
asL	ASSIGNABLE OUTPUT L	Mono
asR	ASSIGNABLE OUTPUT R	Mono
FW1	FW OUTPUT 1	Mono
:	:	:
FW14	FW OUTPUT 14	Mono
drum	See below*	See below*

\* About "drum" setting, see below.

When "drum" is selected and the Normal Voice is assigned to the edited Part, the sound will be output via the OUTPUT L and R jacks in stereo.

When "drum" is selected and the Drum Voice is assigned to the edited Part, the sound will be output via the jacks set in the Drum Key Edit display as the Output Select parameter.

**NOTE** The FW settings (FW1 – 14) are available only when the optional FW16E is installed.

**NOTE** You can call up the list and select one by pressing the [SF6] LIST button. For details, see page 37.

### 5 Ins Effect Sw (Insertion Effect Switch)

Determines whether or not the current Part is available for the Insertion Effect. When this parameter is set to on, the Insertion Effect of the Voice assigned to the Part is enabled. You can set the Insertion Effect Switch parameter for all Parts (including the A/D Input part) from the Insertion Effect Switch display (page 108) in the Performance Common Edit mode.

### 6 Assign 1 Value

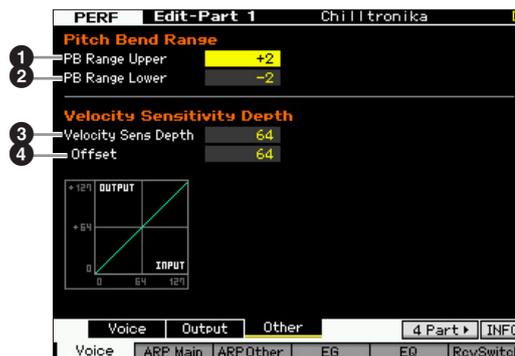
### 7 Assign 2 Value

Determines the value of Knob 7 (ASSIGN 1) and Knob 8 (ASSIGN 2) when the current Voice is selected and the TONE 1 lamp is turned on. The functions assigned to these Knobs are shown at the right of the setting values.

**Settings:** -64 – +0 – +63

**NOTE** The functions of Knob ASSIGN 1 and ASSIGN 2 can be set from the Controller Set display (page 61).

## Other Settings—[SF3] Other



### 1 PB Range Upper (Pitch Bend Range Upper)

### 2 PB Range Lower (Pitch Bend Range Lower)

Determines the maximum Pitch Bend range in semitones. Setting the Upper parameter to +12 would result in a maximum pitch rise of one octave when the Pitch Bend wheel is moved upwards. A Lower setting of -12 would result in the pitch being lowered up to a maximum of one octave (12 semitones) when the Pitch Bend wheel is moved downwards.

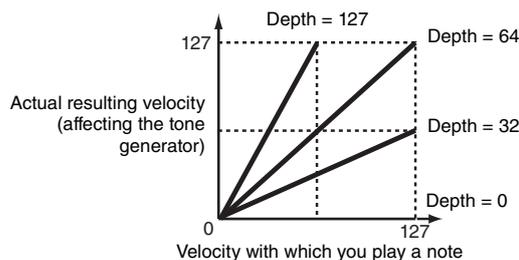
**Settings:** -48 – +0 – +24

### 3 Vel Sens Depth (Velocity Sensitivity Depth)

Determines the degree to which the resulting volume of the tone generator responds to your playing strength. The higher the value, the more the volume changes in response to your playing strength (as shown below). When this is set to 0, the volume remains the same no matter how strongly or softly you play. This would be useful, for example, for authentic playing of an Organ Voice.

**Settings:** 0 – 127

When Offset (below) is set to 64:



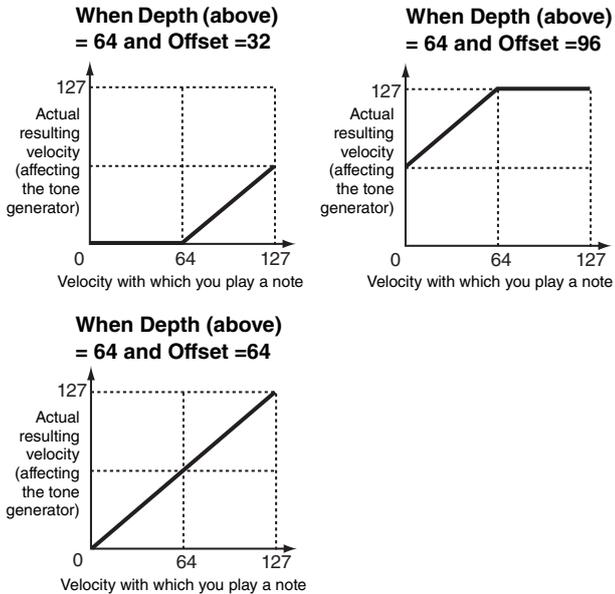
Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

Reference

#### 4 Velocity Sens Depth Offset (Velocity Sensitivity Depth Offset)

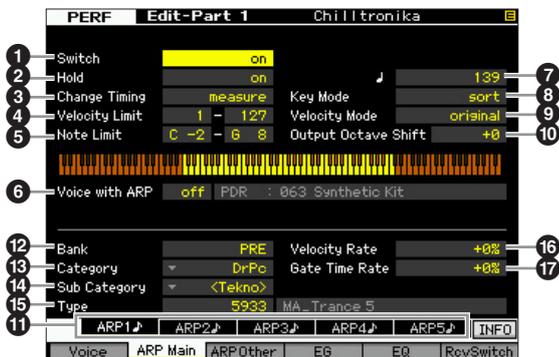
Determines the amount by which played velocities are adjusted for the actual resulting velocity effect. This lets you raise or lower all velocities by the same amount—allowing you to automatically compensate for playing too strongly or too softly. If the result is 1 or less, the value is set to 1. If the result is higher than 127, the value is set to 127.

**Settings:** 0 – 127



### Arpeggio Settings—[F2] ARP Main (Arpeggio Main)

This display determines the basic settings of the Arpeggio. The settings of parameters (1) or more) shown at the bottom of the display can be registered to the [SF1] – [SF5] buttons.



**NOTE** The Four-Part display cannot be called up from this display.

**NOTE** The KBD icon is shown on the tab corresponding to the [SF6] button depending on the selected parameter. In this condition, you can enter the note number or velocity by pressing the appropriate note on the keyboard while holding the [SF6] KBD button. For details, see page 37.

#### 1 Switch\*

Determines whether Arpeggio for each Part is on or off.

**Settings:** off, on

#### 2 Hold\*

When this is set to “on,” the Arpeggio cycles automatically, even if you release your fingers from the keys, and it continues to cycle until the next key is pressed.

**Settings:** sync-off (see below), off, on

sync-off

When set to “sync-off,” the Arpeggio playback continues to run silently, even when you release the keys. Pressing any key turns the Arpeggio playback on again.

**NOTE** For details about how to use the Arpeggio Type List in the Data List, see page 16.

#### 3 Change Timing\*

Determines the actual timing at which the Arpeggio type is switched when you select another type during Arpeggio playback. When set to “realtime,” the Arpeggio type is switched immediately. When set to “measure,” the Arpeggio type is switched at the top of the next measure.

**Settings:** realtime, measure

#### 4 Velocity Limit

Determines the lowest and highest velocity which can trigger the Arpeggio playback. This lets you set the velocity range with which you press the note to trigger the Arpeggio playback. You can also create separate low and high trigger ranges for the Arpeggio playback, with a velocity “hole” in the middle, by specifying the maximum value first. For example, setting a Velocity Limit of 93 – 34 lets you play the Arpeggio from two separate velocity ranges: soft (1 – 34) and hard (93 – 127). Notes played at middle velocities between 35 and 92 do not play the Arpeggio.

**Settings:** 1 – 127

**NOTE** Please keep in mind that no sound is produced when the Key Mode is set to “sort” or “thru” and notes are played outside the Note Limit setting here.

#### 5 Note Limit

Determines the lowest and highest notes in the Arpeggio’s note range. Notes played in this range trigger the Arpeggio. For example, setting a Note Limit of “C5 – C4” lets you trigger the Arpeggio by playing notes in the two ranges of C -2 to C4 and C5 to G8; notes played between C4 and C5 have no effect on the Arpeggio.

**Settings:** C -2 – G8

**NOTE** Please keep in mind that no sound is produced when the Key Mode is set to “sort” or “thru” and notes are played outside the Note Limit setting here.

#### 6 Voice with ARP

To each type of the Arpeggio, the appropriate Voice is registered. This parameter determines whether or not the appropriate Voice registered to each Arpeggio type is assigned to the edited Part. When set to “on,” the appropriate Voice is assigned to the edited Part in place of the currently assigned Voice. When set to “off,” the appropriate Voice is not assigned to the edited Part. The

currently assigned Voice is maintained. The name of the Voice registered to the Arpeggio Type is shown at the right side.

**Settings:** off (not copied), on (copied)

**NOTE** A User Voice may be registered to a certain Arpeggio Type via the Voice with ARP function. With the factory settings, each of the combinations of an Arpeggio Type and its companion User Voice is designed to be the most suitable match and produce the appropriate sound/phrase. However, when revising the sound of the User Voice by editing the parameters or storing a different Voice to the corresponding User Voice number, this combination may become improper or produce an unexpected sound. If such a situation occurs, select the most appropriate Voice for the current Arpeggio Type on the [F1] Voice display.

## 7 Tempo\*

Determines the Arpeggio Tempo.

**Settings:** 5.0 – 300.0

**NOTE** If you are using this instrument with an external sequencer, MIDI computer, or other MIDI device, and you want to synchronize it with that device, set the MIDI sync (6) parameter in the MIDI display (page 228) of the Utility mode to “MIDI” or “auto.” In this case, the Tempo parameter here indicates “MIDI” or “auto” and cannot be changed.

## 8 Key Mode

Determines how the Arpeggio plays back when playing the keyboard.

**Settings:** sort, thru, direct, sort+direct, thru+direct

**sort**

When you play specific notes (for example, the notes of a chord), the same sequence plays, no matter what order you play the notes.

**thru**

When you play specific notes (for example, the notes of a chord), the resulting sequence differs depending on the order of the notes.

**direct**

Note events of the Arpeggio sequence do not play; only the notes you play on the keyboard are heard. When the Arpeggio plays back, the events such as Pan and Brightness are applied to the sound of your keyboard performance. Use this setting when the Arpeggio types includes non-note data or when the Category type “Ctrl” is selected.

**sort+direct**

The Arpeggio is played back according to the “sort” setting here, and the note pressed is also sounded.

**thru+direct**

The Arpeggio is played back according to the “thru” setting here, and the note pressed is also sounded.

**NOTE** Some Arpeggio types belonging to the “Cntr” Category may not have note events (page 18). When such an Arpeggio type is selected and the Key Mode is set to “sort” or “thru,” no sound is produced even if you press a note on the keyboard.

## 9 Velocity Mode

Adjusts the velocity of the Arpeggio notes.

**Settings:** original, thru

**original**

The Arpeggio plays back at the preset velocities included in the Arpeggio sequence data.

**thru**

The Arpeggio plays back according to the velocity of your playing. For example, if you play the notes strongly, the playback volume of the Arpeggio increases.

## 10 Output Octave Shift

Specifies the maximum Arpeggio range in octaves.

**Settings:** -10 – +10

## 11 [SF1] ARP1 – [SF5] ARP5 (Arpeggio 1 – 5) buttons

The six parameters Bank (12) through Gate Time Rate (17) at the lower half Part of the display, can be edited in each of the [SF1] ARP1 through [SF5] ARP5 displays. You can set the parameters in the lower half of the display for each of the five Arpeggio settings by pressing one of the [SF1] – [SF5] buttons. The 8th note icon shown in the tab menu indicates any Arpeggio Type (other than “off”) is selected in the display corresponding to the Sub Function button.

**Settings:** [SF1] – [SF5] (Sub Function) buttons

## 12 Bank\*

Determines the Arpeggio Bank containing the desired Arpeggio type. Select “PRE” if you wish to select a preset Arpeggio Type. Select “USR” if you wish to select an Arpeggio Type you originally created and stored.

**Settings:** PRE, USR

**NOTE** For detailed instructions on creating your original Arpeggio type, see page 20.

## 13 Category\*

### 14 Sub Category\*

Determines the Arpeggio Category and Sub Category including the desired Arpeggio type. These parameters are available when “PRE” is selected as the Bank.

**Settings:** Refer to the Arpeggio Category List on page 15.

**NOTE** You can call up the list by pressing the [SF6] LIST button then select the desired item from the list.

**NOTE** For details about how to use the Arpeggio Type List in the Data List, see page 16.

## 15 Type\*

Determines the desired Arpeggio Type number from the specified Category. The name of the selected Arpeggio Type is shown at right of the specified number on the display. Refer to the Arpeggio Type List in Data List.

## 16 Velocity Rate

Determines the offset value by which the Arpeggio notes will be shifted from their original velocities. If the resultant velocity value is less than zero it will be set to 1, and if the resultant velocity is greater than 128 it will be set to 127. This parameter can be changed via the Knob directly.

**Settings:** -100% – +0% – +100%

## 17 Gate Time Rate

Determines the Gate Time (length) of the Arpeggio notes. The Gate Time cannot be decreased beyond its normal minimum of 1; any values outside that range will automatically be limited to the minimum.

This parameter can be changed via the Knob directly.

**Settings:** -100% – +0% – +100%

## Arpeggio settings—[F3] ARP Other (Arpeggio Other)

By changing the timing and velocity of the notes, you can change the rhythmic “feel” of the Arpeggio playback.



**NOTE** The Four-Part display cannot be called up from this display.

### 1 Unit Multiply

Adjusts the Arpeggio playback time based on tempo. By using this parameter, you can create a different Arpeggio type from the original one. For example, if you set a value of 200%, the playback time will be doubled (tempo is halved). On the other hand, if you set a value of 50%, the playback time will be halved and the tempo doubled. Normal playback time is 100%. This parameter can be changed via the Knob directly.

**Settings:** 50%, 66%, 75%, 100%, 133%, 150%, 200%

### 2 Quantize Value\*

Determines to what beats the note data in the Arpeggio sequence data will be aligned, or determines to what beats in the Arpeggio sequence data the swing is applied. This parameter can be changed via the Knob directly. The number shown at right of each value indicates the length assumes that the quarter-note resolution is 480.

**Settings:** 60 (32nd note), 80 (16th note triplet), 120 (16th note), 160 (8th note triplet), 240 (8th note), 320 (1/4 note triplet), 480 (1/4 note)

### 3 Quantize Strength

Sets the “strength” by which note events are pulled toward the nearest quantize beats. A setting of 100% produces exact timing set via the Quantize Value parameter above. A setting of 0% results in no quantization. A setting of 50% results in the note events being pulled halfway between 0% and 100%. This parameter can be changed via the Knob directly.

**Settings:** 0% – 100%

### 4 Swing\*

Delays notes on even-numbered beats (backbeats) to produce a swing feel. Settings above 1 delay the Arpeggio notes, whereas settings below 1 advance them. A setting of 0 produces exact timing set via the Quantize Value, resulting in no swing. Judicious use of this setting lets you create swing rhythms and triplet feels, such as shuffle and bounce. This parameter can be changed via the Knob directly.

**Settings:** -120 – +120

### 5 Velocity Rate

Determines how much the velocity of the Arpeggio playback is offset from the original value. For example, a setting of 100% means the original values are used. Settings below 100% will reduce the velocities of the Arpeggio notes, whereas settings above 100% will increase the velocities. If the resultant velocity value is less than zero it will be set to 1, and if the resultant velocity is greater than 128 it will be set to 127. This parameter can be changed via the Knob directly.

**Settings:** 0% – 200%

### 6 Gate Time Rate

Determines how much the Gate Time (length) of the Arpeggio notes is offset from the original value. For example, a setting of 100% means the original values are used. Settings below 100% will reduce the velocities of the Arpeggio notes, whereas settings above 100% will increase the velocities. The Gate Time cannot be decreased beyond its normal minimum of 1; any values outside that range will automatically be limited to the minimum. This parameter can be changed via the Knob directly.

**Settings:** 0% – 200%

### 7 Octave Range

Specifies the maximum Arpeggio range in octaves. Positive value settings increase the octave range of the Arpeggio playback upward, whereas negative value settings increase it downward. This parameter can be changed via the Knob directly.

**Settings:** -3 – +0 – +3

### 8 Loop

When this is set to “on,” the Arpeggio cycles while notes are held. When this is set to “off,” the Arpeggio plays only once even if notes are held.

**Settings:** off, on

### 9 Trigger Mode

When this is set to “gate,” pressing the note starts Arpeggio playback and releasing the note stops it. When this is set to “toggle,” pressing the note starts/stops Arpeggio playback and releasing the note does not affect Arpeggio playback. Normally, this parameter should be set to “gate.”

**Settings:** gate, toggle

**NOTE** The Trigger Mode “toggle” setting overcomes the Hold “on” setting in the Arpeggio Main display (page 112). In other words, even when the Hold parameter is set to “on,” pressing the note start/stops Arpeggio playback when the Trigger Mode is set to “toggle.”

### 10 Accent Vel Threshold (Accent Velocity Threshold)

Some preset Arpeggio types include the special sequence data called “Accent Phrase,” which will be played back only when the velocities higher than a specified value are

received. This parameter determined the minimum velocity that will trigger the Accent Phrase.

**Settings:** off, 1 – 127

### 11 Accent Start Quantize

Determines the start timing of the Accent Phrase when the Velocity specified in Accent Vel Threshold above is received. When set to off, the Accent Phrase starts as soon as the Velocity is received. When set to on, the Accent Phrase starts on the beat specified for each Arpeggio type after the Velocity is received.

**Settings:** off, on

### 12 Random SFX

Some Arpeggio types feature the Random SFX function which will trigger the special sound such as fret noise of the guitar when the note is released. This parameter determines whether the Random SFX is active or not.

**Settings:** off, on

### 13 Random SFX Velocity Offset

Determines the offset value by which the Random SFX notes will be shifted from their original velocities. If the resultant velocity value is less than zero it will be set to 1, and if the resultant velocity is greater than 128 it will be set to 127.

**Settings:** -64 – +0 – +63

### 14 Random SFX Key On Control

When this is set to “on,” the Random SFX special sound is played with the pre-programmed velocity. When this is set to “off,” the Random SFX special sound is played with the velocity generated when the note is pressed.

**Settings:** off, on

### 15 Fixed SD/BD

This parameter is available only when a Drum Voice is assigned to the current Part. When this parameter is set to on, C1 will be used as the note of the Snare Drum and D1 will be used as the note of the Bass Drum in Arpeggio playback.

Although most Drum Kits assign the Snare Drum sound to C1 and the Bass Drum to D1, certain Drum Kits assign these sounds also to other notes additionally and certain Arpeggio Types are created by using those notes (different from C1 and D1). Accordingly, you may hear improper sounds depending on the selected Arpeggio Type and Drum Kit. Setting this parameter to on may solve such a problem.

If you feel that the Snare and Bass Drum sound is improper when the Arpeggio Type is changed via the [SF1] – [SF5] buttons, it is a good idea to set this parameter to on.

**Settings:** on, off

### 16 MIDI Out Switch (MIDI Output Switch)

When this is set to on, Arpeggio playback data is output from the MIDI terminal.

**Settings:** off (not output), on (output)

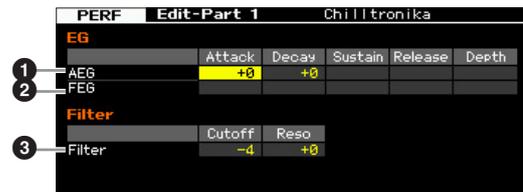
### 17 MIDI Out Channel (MIDI Output Channel)

Determines the MIDI transmit channel for Arpeggio playback data. When this is set to “kbd,” Arpeggio playback data is output via the MIDI transmit channel (page 96) set in the Performance Play mode.

**Settings:** 1 – 16, kbd (Keyboard Channel)

## EG Settings—[F4] EG

You can control the sound transition from the moment a key is pressed to the moment at which it is released. You can also adjust the tone brilliance by setting the Cutoff Frequency and Resonance.



#### 1 AEG (Amplitude EG)

Determines the AEG (Amplitude Envelope Generator) parameters for each Part. The following parameters can be used to control the change in volume from the moment a note is pressed on the keyboard to the moment the sound stops. The setting made here will be applied to the AEG parameters (page 80) of each Voice as offset.

##### Attack (Attack Time)

Determines the speed of attack from the time a key is played until the maximum initial level of the EG is reached.

##### Decay (Decay Time)

Determines how fast the volume falls from maximum attack level to the sustain level.

##### Sustain (Sustain Level)

Determines the sustain level at which the volume will continue while a note is held, after the initial attack and decay.

##### Release (Release Time)

Determines how quickly the sound decays to silence after the key is released.

**Settings:** -64 – +0 – +63

**NOTE** When a Drum Voice is selected, Sustain Level and Release Time are not available.

#### 2 FEG (Filter EG)

Determines the FEG (Filter Envelope Generator) parameters for each Part. Using the FEG, you can control the transition in tonal color (Cutoff Frequency) from the moment the sound starts to the moment it stops. The setting made here will be applied to the FEG parameters (page 76) of each Voice as offset.

##### Attack (Attack Time)

Determines the speed of filter variation from the time a note is played until the maximum initial level of the Cutoff Frequency is reached.

**Decay (Decay Time)**

Determines how fast the Cutoff Frequency falls from maximum attack level to the sustain level.

**Release (Release Time)**

Determines how fast the Cutoff Frequency falls from the sustain level to zero when a note is released.

**Depth**

Determines the range over which the cutoff frequency of the Filter EG changes. A setting of 0 will cause the cutoff frequency not to change. The farther from 0 the value is, the larger the range of the cutoff frequency. For negative values, the change of the cutoff frequency is reversed.

**Settings:** -64 – +0 – +63

**NOTE** When a Drum Voice is selected, not all of the parameters are available. Unavailable parameters are blank and cannot be edited.

**3 Filter**

Determines the Cutoff Frequency and Resonance for the Filter to change the Performance sound. The setting made here will be added to the same parameters (page 74) of each Voice as offset.

**Cutoff**

Determines the cutoff frequency for the Filter. The frequency set here is the center frequency at which the signals are affected when they pass through each filter.

**Settings:** -64 – +0 – +63

**Resonance/Width**

This parameter's function varies according to the selected Filter Type. If the selected filter is an LPF, HPF, BPF (excluding the BPFw), or BEF, this parameter is used to set the Resonance. If the selected filter is a BPFw, this parameter is used to adjust the frequency bandwidth.

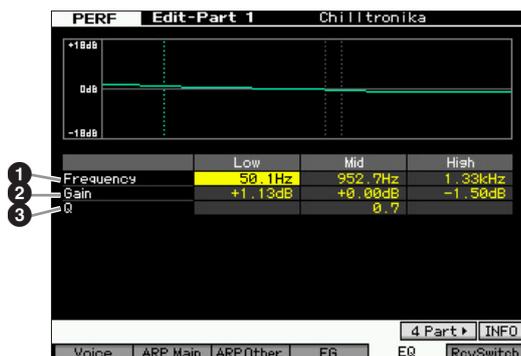
Resonance is used to set the amount of Resonance (harmonic emphasis) applied to the signal at the cutoff frequency. This can be used in combination with the cutoff frequency parameter to add further character to the sound.

The Width parameter is used to adjust the width of the band of signal frequencies passed by the filter with the BPFw.

**Settings:** -64 – +0 – +63

**Equalizer (EQ) Settings—[F5] EQ**

From this display you can apply 3-band parametric EQ to each individual Part, for fine adjustment of the sound. The EQ shapes for Low and High are fixed as shelving types.



**1 Frequency**

Determines the center frequency. Frequencies around this point are attenuated/boosted by the Gain setting below. Higher values produce higher frequencies.

**Settings:**

**Low**

50.1 Hz – 2.0 kHz

**Middle**

139.7 Hz – 10.1 kHz

**High**

503.8 Hz – 14.0 kHz

**2 Gain**

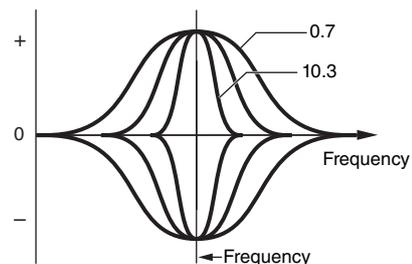
Determines the level gain for the Frequency (set above), or the amount the selected frequency band is attenuated or boosted.

**Settings:** -12 dB – +0 dB – +12 dB

**3 Q (Bandwidth)**

This varies the signal level at the Frequency setting to create various frequency curve characteristics. The higher the setting the smaller the Q (Bandwidth). The lower the setting, the greater the Q (Bandwidth).

**Settings:** 0.7 – 10.3



**MIDI Receive settings—[F6] RcvSwitch (Receive Switch)**

From this display you can set how each individual Part responds to various MIDI data, such as Control Change and Program Change messages. When the relevant parameter is set to "on," the corresponding Part responds to the appropriate MIDI data. Each of the Controller names in this display indicates the MIDI data generated by using the corresponding Controller.

**NOTE** For Parts to which the Drum Voice is assigned, Sustain is not available.



# Performance Job—Convenient Functions

The Performance Job mode features some convenient data organization and initialization tools, for use when creating Performances and archiving them. Press the [JOB] button in the Performance mode to enter the Performance Job mode.

## Performance Job—Basic Operation

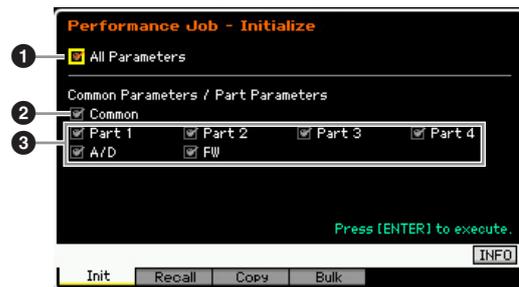
- 1 In the Performance mode, press the [JOB] button to enter Performance Job Mode.**
- 2 Select the desired Job menu by pressing the appropriate button, [F1] – [F4].**
- 3 Move the cursor to the desired parameter, then set the value.**
- 4 Press the [ENTER] button. (The display prompts you for confirmation.)**  
To cancel the Job, press the [DEC/NO] button.
- 5 Press the [INC/YES] button to execute the Job.**  
After the Job has been completed, a “Completed” message appears and operation returns to the original display.
- 6 Press the [PERFORM] button to return to the Performance Play mode.**

### NOTICE

Even if you execute the Job, selecting a different Performance or turning the power off without storing will erase the Performance data. Make sure to store the Performance data to internal memory by pressing the [STORE] button before selecting a different Performance or turning the power off.

## Initializing the Performance—[F1] Init (Initialize)

This function lets you reset (initialize) all Performance parameters to their default settings. It also allows you to selectively initialize certain parameters, such as Common settings, settings for each Part, and so on.



### 1 All Parameters

All settings for the selected Performance are initialized. When this is set to on, the cursor cannot be moved.

### 2 Common Parameters

Common parameter settings for the selected Performance are initialized.

**NOTE** The Insertion Effect Switch is a Part parameter. Therefore, checkmark the box of Part 1 – 4 described below if you wish to initialize the Insertion Effect Switch parameter settings.

### 3 Part Parameters

#### Part 1 – 4

Parameter settings for Parts which are turned on are initialized.

#### A/D (A/D Input)

This is the Part input from the external audio equipment connected to the A/D INPUT jack. When this is checkmarked, parameter settings for the A/D Input Part (page 106) of Common Edit are initialized.

#### FW

This is the Part input from the external equipment connected to the IEEE1394 jack via the IEEE1394 cable. When this is checkmarked, parameter settings for the FW Part (page 106) of the Common Edit are initialized.

## Edit Recall—[F2] Recall

If you are editing a Performance but you have not stored it before switching to another Performance, the edits you have made will be cleared. If this happens, you can use the Recall function to restore the Performance with your latest edits intact.

## Performance Copy function—[F3] Copy

### Copying parameter settings from another Performance—[SF1] Part

This convenient operation lets you copy Common Edit and Part Edit settings of a certain Performance to the currently edited Performance. This is useful if you are creating a Performance and wish to use some parameter settings of another Performance.



#### 1 Performance

Determines the Bank and the Performance number to be copied. This parameter cannot be set when the Current Performance (below) is turned on.

#### 2 Current Performance

When this is set to on, the currently selected Performance (the one you are editing now) is selected as source. Accordingly, you can copy the parameter settings from a Part to a different Part of the same Performance.

#### 3 Data type of the source

Determines the source data type including the Part number. According to the setting here, the Data type of the destination below will be automatically set to the appropriate item.

**Settings:** Common, Part 1 – 4, A/D, FW

**NOTE** The Insertion Effect Switch is a Part parameter. Therefore, the Insertion Effect Switch parameter settings of the selected part are copied only when selecting one of the Parts 1 – 4.

#### 4 Data type of the destination

Determines the destination data type including the Part number. When the data type of the source Voice (above) is set to “common,” this parameter will be fixed to “common.”

**Settings:** Common, Part 1 – 4, A/D, FW

### Copying the Voice Effect settings—[SF2] Voice

This convenient operation lets you copy Effect and Master EQ settings of a certain Voice assigned to a certain Performance to the currently edited Performance. This would come in handy when a certain Performance has settings that you want to use in your Performance program.



#### 1 Performance

Determines the Bank and the Performance number to be copied. This parameter cannot be set when the Current Performance (below) is turned on.

#### 2 Current Performance

When this is set to on, the currently selected Performance (the one you are editing now) is selected as source.

#### 3 Source Part

Determines the Part of the source Performance. The name of the Voice assigned to the selected Part is shown.

#### 4 Effect Unit Settings

Determines which Effect units are copied. You can select Effect units to be copied from Reverb, Chorus, Master EQ and Master Effect.

**NOTE** Even when each of the Reverb and Chorus is set to “on,” executing the Job does not copy the Send Level from the Voice to the Performance. If you want to apply the same depth of the Reverb and Chorus as in the Voice mode to the copied Voice, set the Reverb Send (1) and Chorus Send (2) in the Voice Output display of the Performance Part Edit mode to the same value manually as in the Voice Edit mode.

## Transmitting the Performance data via MIDI—[F4] Bulk (Bulk Dump)

This function lets you send your edited parameter settings for the currently selected Performance to a computer or another MIDI device for data archiving. To execute the Bulk Dump operation, press the [ENTER] button.

**NOTE** In order to execute Bulk Dump, you'll need to set the correct MIDI Device Number. For details, see page 228.

**NOTE** The Bulk Dump data includes only the MIDI messages and does not include the Waveforms.

# Creating a Voice/Performance by Using the Sampling Function

The MOTIF XF has a powerful Sampling function that lets you record audio signals—such as vocals from a microphone or electric guitar—and integrate the resulting Samples with the Voices and Performances of the instrument. When you enter the Sampling mode from the Voice mode or Performance mode, you can create your own original Samples, edit them, assign them to a Waveform, and then assign the original Waveform to a User Voice or Performance.

This section covers the Sampling functions when entering the Sampling mode by pressing the [INTEGRATED SAMPLING] button in the Voice mode or the Performance mode.

**NOTE** You can also enter the Sampling mode by pressing the [INTEGRATED SAMPLING] button in the Song mode or the Pattern mode. Keep in mind that the Sampling functions differ depending on from which mode the Sampling mode is called up, the Voice/Performance mode or the Song/Pattern mode. See page 201 for instructions on using the Sampling function in the Song mode/Pattern mode.

## NOTICE

**The recorded (edited) Sample data will be lost when turning the power off. Before turning off the power, you should always copy the Sample data to the optional Flash Memory Expansion Module (page 34), or save the Sample data to a USB storage device or a computer connected to the same network as the MOTIF XF (page 41).**

### Flash Memory Expansion Module (sold separately)

The sample obtained via the Sampling function can be stored as a Waveform by installing the optional Flash Memory Expansion Module FL512M/FL1024M to the MOTIF XF. The sample on the Flash Memory Expansion Module will be maintained even if the power is turned off and can be called up as the Waveform immediately. This is very convenient when using a User Voice containing the Waveform to which the Sample created via the Sampling function has been assigned.

## The Sampling mode structure

In this section, you'll learn about the structure and organization of Samples, Key Banks and Waveforms, as well as their relationship to Voices and Performances.

### Sample

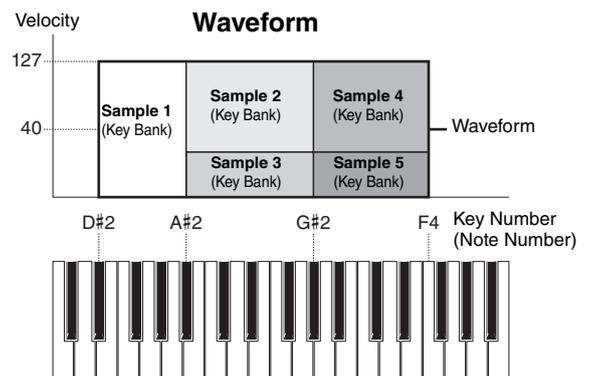
A Sample is digital audio data, made by directly recording a signal, such as that of vocals or electric guitar, to the MOTIF XF. Throughout this manual, the words "Sample" and "Wave" are sometimes used interchangeably; however, you should be careful to distinguish between "Wave" (raw audio data) and "Waveform" (collected audio data used to make up a Voice).

Samples can be obtained into the instrument via the following methods: Recording audio signal in the Sampling mode, loading a WAV file or AIFF file from the USB storage device connected to the MOTIF XF in the File mode, and loading a WAV file or AIFF file from the hard disk connected to the network to which the MOTIF XF is connected. Because the obtained Sample data will be lost by turning the power off, Samples residing in the MOTIF XF internal memory should be saved as digital data (in WAV or AIFF format) to a USB storage device or to a computer connected via network to the MOTIF XF.

### Sample, Key Bank and Waveform

Samples are assigned and stored to Waveforms on the MOTIF XF. Before you can actually record a Sample or load a Sample from a USB storage device, you'll need to specify a Waveform number as a destination. This Waveform then serves as the "container" for the Sample.

Each of the Waveforms can contain multiple Samples. To assign these Samples to a different space or container, you can set the key range and velocity range for each Sample. With this setting, the different Sample is played back depending on the pressed note and its velocity. The note range and velocity range to which each of the Samples is assigned is called the Key Bank.



## Voices and Waveform

You can play the Waveform by assigning it to a Voice then playing the keyboard with that Voice. You can assign the Waveform to an Element of the Voice in the Voice Element Edit mode (page 69). The Voice Edit mode lets you assign the Waveform you've created with the Sampling function to

the edited Element, just as you would any of the preset Waveforms included on the instrument.

**NOTE** Keep in mind that you can assign the User Voices created in the Sampling mode entered from the Voice/Performance mode to Mixing parts of the Song/Pattern. You can also assign the Waveforms created in the Sampling mode entered from the Song/Pattern mode to Elements of the Voice in the Voice Edit mode.

## Sampling Main display

The Sampling Main display, the entrance of the Sampling mode, is called up when pressing the [INTEGRATED SAMPLING] button from the current mode.

Pressing the [INTEGRATED SAMPLING] button in the Voice mode or Performance mode calls up the Sampling mode dedicated to creation of Samples (Waveforms) assigned to the Voice/Performance. Press the [EXIT] button to return to the original mode, Voice or Performance.

## Selecting a Waveform and Key Bank— [INTEGRATED SAMPLING]

The Sampling Main display lets you select the Waveform and its Key Bank then hear the sound of the Sample assigned to the selected Key Bank. The Waveform can be selected at ① and the Key Bank of the selected Waveform can be selected at ⑬.

**NOTE** The rate at which digital readings are taken is referred to as the sampling frequency. Higher sampling frequencies result in higher quality sound. 44.1kHz is the standard value as the Sampling Frequency.

### ⑥ Stereo/Mono (Indication only)

Indicates whether the Sample assigned to the selected Key Bank is stereo or mono.

### ⑦ Recordable Time (Indication only)

Indicates the available sampling time using the available memory. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. The graph illustration indicates the already used memory amount as a blue line.

### ⑧ [SF1] Audition

You can hear the Sample assigned to the selected Key Bank by holding this button. This lets you check how the Sample will actually sound when played back.

### ⑨ [SF6] KBD (Keyboard)

You can also select the Key Bank belonging to the selected Waveform directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key.

### ⑩ [F6] Rec (Record)

Pressing this button to call up the Sampling Record Setup display. This display is used for setting up the instrument for Sampling. For details, see page 122.

### ⑪ Duplication symbol (Indication only)

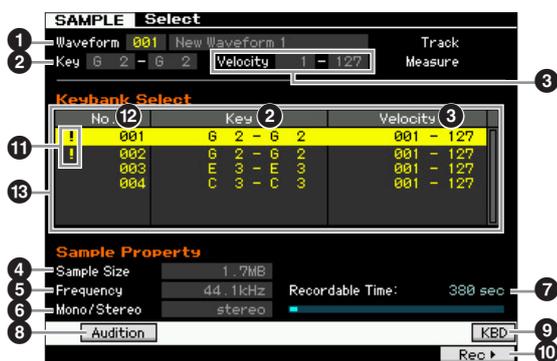
This symbol appears when the key range and velocity range overlaps the ones of the other Key Bank. For information on how the samples assigned to the overlapped Key Banks are played back, see page 129.

### ⑫ Key Bank number (Indication only)

Indicates the Key Bank number of the selected Waveform.

### ⑬ Key Bank List

This indicates the list of the Key Banks included in the selected Waveform. You can select the desired Key Bank via the data dial, cursor up/down buttons, [INC/YES] and [DEC/NO] buttons.



### ① Waveform

Determines the Waveform number. The name of the selected Waveform is displayed.

**Settings:** 001 - 128

### ② Key (Key Range) (Indication only)

Indicates the Range of the Key Bank.

### ③ Velocity (Velocity Range) (Indication only)

Indicates the velocity range of the currently selected Key Bank.

### ④ Sample Size (Indication only)

Indicates the size of the Sample assigned to the selected Key Bank.

### ⑤ Frequency (Indication only)

Indicates the sampling frequency of the Sample assigned to the selected Key Bank.

# Sampling Record

## [INTEGRATED SAMPLING] → [F6] Rec

The Sampling Record function lets you record sounds—such as vocals from a connected microphone, the signal from an electric guitar, or audio from an external CD or MP3 player—directly to the MOTIF XF, and store them to the instrument as Samples. The Samples obtained via the Sampling function can be played back from the keyboard by assigning them first to a Waveform, then a Voice.

## Sampling Procedure

In this section, you'll learn how to create a Voice or Performance by using the Sampling function.

### 1 Connect a microphone or other audio equipment to the MOTIF XF.

For information about how to do this, refer to the Owner's Manual.

If you want to use the sound of the MOTIF XF as a recording source (with the Resampling function), this step is unnecessary.

### 2 Enter the Voice mode or Performance mode.

When entering the Performance mode, select a Performance to which the Sample will be assigned.

### 3 Press the [INTEGRATED SAMPLING] button to enter the Sampling mode. (The indicator lights.)

The Sampling Main display appears.

### 4 Press the [F6] Rec button to call up the Record Setup display (page 122).

Set the following parameters in the Setup display. The numbers in parentheses below refer to the parameters in the Sample Record display on the next page.

- The Input Source (2) determines the connector from which the audio source (microphone, audio equipment, etc.) is input.
- The Waveform (6) determines the Waveform number.
- The Voice (10) determines the Voice Bank and Number.
- The Part (9) determines the Performance part to which the Voice is assigned when entering the Sampling mode from the Performance mode.
- Set other parameters as necessary.

### 5 Press the [F6] Standby button to call up the Record Standby display (page 124).

Set the following parameters on the Standby display. Numbers in the parentheses are equivalent to the numbers pointing parameters on the Standby display.

- Set the Trigger Mode (8) to determine the method by which Sampling will be triggered. Normally, set this to "level."
- If you set the Trigger Mode (8) to "level," you will also need to set the Trigger Level (7). Set this parameter so that the red triangle of the level meter (indicating the

Trigger Level) is slightly below the level at which the sound is input.

### 6 Adjust the input sound level for optimum level.

Try to set the input level as high as possible without clipping for the best sound quality. Follow the instructions below to adjust the input level.

- When the Input Source is set to A/D Input, adjust the input signal level by using the GAIN knob on the rear panel. If you cannot adjust the input level appropriately, change the Mic/Line setting (page 223) in the Utility mode.
- When the Input Source is set to Resample, adjust the input signal level by setting the Record Gain.
- When the Input Source is set to FW, the input level cannot be adjusted.

### 7 Turn the Confirm function on or off by pressing the [SF1] button.

The Confirm tab turns green when set to on, and turns gray when set to off. When Confirm is turned on, you can easily listen back to your just-recorded Sample and conveniently re-record it if you are not satisfied with the results.

### 8 Press the [F5] Start button to start the Sampling operation.

When the Trigger Mode (8) is set to "manual," pressing the button immediately starts Sampling (a RECORDING indication appears in the display).

When the Trigger Mode (8) is set to "level," pressing the button enables Sampling but does not start it (a WAITING indication appears in the display).

### 9 Play the sound to be sampled.

When the Trigger Mode (8) is set to "level" and an audio signal exceeding the specified Trigger Level (7) is input to the instrument, the RECORDING indication replaces the WAITING indication and Sampling starts. During Sampling, a graphic representation of the recorded audio appears in the display.

## 10 Press the [F6] Stop button to stop Sampling.

If you set Confirm to on in step 7 above, the Sampling Finished display (page 125) appears. Press the [SF1] Audition button to hear the sampled sound. If you are satisfied with the results, press the [ENTER] button to store the sampled sound as a “Sample” and return to the Setup display. If you are not satisfied with the results and you wish to try again, press the [EXIT] button to return to the Standby display and try Sampling from step 5 again.

If you set Confirm to off in step 7 above, the sampled sound will be stored as a “Sample” automatically.

**NOTE** When you set Record Next (4) to “on” in step 4 above, the instrument returns to the STANDBY display after the Sample data is fixed. In this case, you can leave the Sampling Record mode by pressing the [EXIT] button.

## 11 Save the Waveform.

If the optional Flash Memory Expansion Module (FL512M/FL1024M) is installed to the MOTIF XF, use the Copy Job (page 130) to save the Waveform. If not, save the Waveform to a USB storage device (page 40) or a computer connected to the same network as the MOTIF XF.

### NOTICE

The recorded (edited) Sample data will be lost when turning the power off. Before turning off the power, you should always copy the Sample data to the optional Flash Memory Expansion Module (page 34), or save the Sample data to a USB storage device (page 40) or a computer connected to the same network as the MOTIF XF.

## Sampling Setup—[F6] Rec

From this display you can set up various parameters for Sampling. Press the [F6] button from the Sampling Main display to call up this display. Press the [EXIT] button to go back to the Sampling Main display.



### 1 Recording Type

Determines the Sampling type. Keep in mind that this parameter is fixed to “sample” when entering the Sampling mode from the Voice/Performance mode.

### 2 Input Source

Determines the input connector via which the signal to be sampled will be received.

**Settings:** A/D Input, resample, FW

#### A/D Input

Analog audio from the A/D INPUT jacks is recognized as the recording source.

#### resample

Audio signal from the OUTPUT jacks of the MOTIF XF is received and recognized as the recording source.

#### FW

Audio signal from the IEEE1394 connector (available when the optional FW16E has been installed) is recognized as the recording source. The audio signal here is transmitted from the computer via FW Ports 3 and 4.

### 3 Mono/Stereo

Determines whether the audio signal is recorded as mono Sample or stereo Sample.

**Settings:** monoL, monoR, monoL+R, stereo

#### monoL

The L-channel signal will be recorded as a mono Sample.

#### monoR

The R-channel signal will be recorded as a mono Sample.

#### monoL+R

The L-channel and R-channel signals will be mixed and recorded as a mono Sample.

#### stereo

A stereo Sample will be recorded.

### 4 Record Next

When set to on, the next key is set as destination of Sampling automatically after the Sampling operation is finished (including assignment of the Sample to a Key Bank), and the Standby display appears. This parameter is useful when you wish to record multiple Samples in succession.

When you wish to obtain Samples successively from a special CD containing various materials in each track, for example, you can set this parameter to on and set the Trigger Mode to “level”—and conveniently have the instrument record consecutive Samples automatically. To leave the Sampling Record mode, press the [EXIT] button.

**Settings:** on, off

**NOTE** When both of the [SF1] Confirm and the Record Next are turned on before the Sampling starts, the FINISHED display appears as soon as the Sampling is finished. From the FINISHED display, fix the Sample data by pressing the [ENTER] button so that the instrument returns to the STANDBY display.

**NOTE** This parameter is useful when you wish to assign individual Samples to the keys one by one to create a Drum Voice by using the special CD containing sound of each drum instrument as source.

**NOTE** Keep in mind that the Record Next parameter may be fixed to “off” and cannot be changed. This occurs when you enter the Sampling mode from the Voice mode/Performance mode, set the Voice to something other than “off,” and set the Source (above) to “resample.”

### 5 Frequency

Specifies the sampling frequency. When the Input Source (2) is set to “FW,” this parameter is fixed to “44.1kHz.” Normally, this parameter should be set to “44.1kHz,” the highest setting. If you wish to obtain a lo-fi sound, select a value other than 44.1 kHz. At settings other than 44.1 kHz, the sound monitored during recording may be different from the recorded sound, depending on the source signal.

**Settings:** 44.1k (44.1 kHz), 22.0kLo (22.05 kHz Lo-Fi), 11.0kLo (11.025 kHz Lo-Fi), 5.5kLo (5.5125 kHz Lo-Fi)

### 6 Waveform

Determines the Waveform number as destination.

**Settings:** 001 – 128

#### NOTICE

The Sampling operation overwrites any data previously existing at the destination Waveform number. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

### 7 Keybank

Determines the note number of the Key Bank as destination. The value set here can be changed in the Sampling Edit mode (page 126).

**Settings:** C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

### 8 Track

This parameter is not available when entering the Sampling mode from the Voice/Performance mode.

### 9 Part

Determines the Performance Part to which the Voice (10) created by Sampling is assigned. When set to off, the obtained Sample is not assigned to the Performance part. This parameter is available when entering the Sampling mode from the Performance mode. When the Voice (10) is set to off, this parameter cannot be set even if entering the Sampling mode from the Performance mode.

**Settings:** off, 1 – 4

### 10 Voice

Determines the voice to which the Waveform (6) created via the Sampling is assigned by specifying the Voice Bank and Number. Setting the Voice Bank to any of USR 1 – 4 assigns the Waveform (6) to the Element 1 of the new Normal Voice created via Sampling. Setting the Voice Bank to UDR assigns the Waveform (6) to the Drum Key (11) of the specified Drum Voice. When this is set to “off,” only a Waveform (6) is created; the Sample is not stored as a User Voice.

#### Settings:

Voice Bank: Off, USR 1 – 4 (User 1 – 4), UDR (User Drum)  
Voice Number: 001 – 128

#### NOTICE

When the Voice Bank is set to any of USR 1 – 4, the Sampling operation overwrites any data already existing in the destination Voice number. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

### 11 Drum Key

Determines the Key to which the Waveform (6) is assigned when the Voice Bank (10) is set to “UDR.”

**Settings:** C0 – C6

### 12 Recordable Time (Indication only)

Indicates the available Sampling time using the available memory. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. The amount of memory space currently being used is shown in the display as a blue line.

### 13 [SF6] INFO (Information)

Indicates the amount of Sampling memory used.



#### 1 Used/Total (Indication only)

Indicates the amount of memory being used and the total amount available.

#### 2 Recordable Size (Indication only)

Indicates the amount of free memory.

#### 3 Recordable Time (Indication only)

Indicates the available Sampling time using the available memory. The time indicated here is calculated assuming that the sampling frequency is 44.1 kHz with mono.

### 14 [F6] Standby

Pressing this button calls up the Sampling Record Standby display. This display is used for executing Sampling. For details, see page 124.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

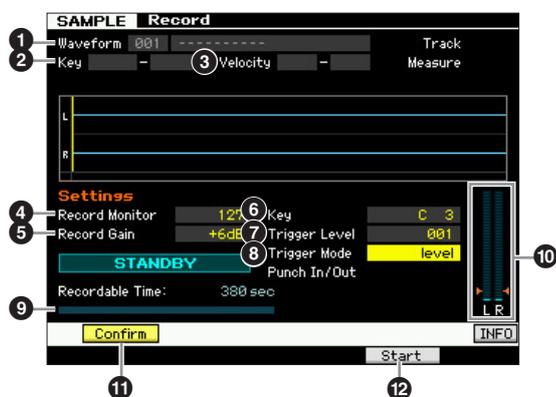
Utility mode

File mode

Reference

## Sampling Record—[F6] Standby

This display is used for executing Sampling. Press the [F6] button from the Setup display to call up this display. Press the [EXIT] button to go back to the Setup display.



**1 Waveform** (Indication only)  
Indicates the number and name of the selected Waveform.

**2 Key (Key Range)** (Indication only)  
Indicates the key range of the currently selected Key Bank.

**3 Velocity (Velocity Range)** (Indication only)  
Indicates the velocity range of the currently selected Key Bank.

**4 Record Monitor**  
Determines the output level of the monitor for the input signal while Sampling. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. This monitor signal is output from the PHONES jack or the OUTPUT R and L/MONO jacks.  
**Settings:** 0 – 127

**5 Record Gain**  
This parameter is available only when the Input Source (page 122) is set to “resample” (recording the sound of the MOTIF XF itself). This determines the recording gain when resampling. The higher the value, the greater the volume of the resampled sound. Before executing the Sampling operation, you can set the appropriate gain by checking the volume via the Level Meter (10) while playing the keyboard.  
**Settings:** -12dB, -6dB, +0dB, +6dB, +12dB

**6 Key**  
Indicates the Keybank (page 123) set in the Sampling Record Setup display. The Key Bank can be changed both here and in Sampling Edit (page 126) after the Sampling operation.  
**Settings:** C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

**7 Trigger Level**  
When the Trigger Mode (8) is set to “level,” you’ll also need to set the Trigger Level. Sampling will begin as soon as an input signal exceeding the specified trigger level is received. The level set here will be indicated as a red triangle in the level meter. For best results, set this as low as possible to capture the entire signal, but not so low as to record unwanted noise.  
**Settings:** 000 – 127

**8 Trigger Mode**  
Determines the method by which Sampling will be triggered.  
**Settings:** level, manual  
**level**  
Sampling starts as soon as an input signal exceeding the specified Trigger Level (7) is received.

**manual**  
Sampling starts soon after you press the [F6] REC button. This setting lets you start Sampling at your desired timing regardless of the input level from audio source.

**9 Recordable Time** (Indication only)  
Indicates the available Sampling time using the available memory. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. The amount of memory space currently being used is shown in the display as a blue line.

**10 Level Meter**  
This graph indicates the input level of the input source. Try to get the input level as high as possible without clipping for the best sound quality.

- NOTE** Follow the instructions below to adjust the input level.
- When the Input Source is set to A/D Input, adjust the input signal level by using the GAIN knob on the rear panel. If you cannot adjust the input level appropriately, change the Mic/Line setting (page 223) in the Utility mode.
  - When the Input Source is set to Resample, adjust the input signal level by setting the Record Gain (5).
  - When the Input Source is set to FW, the input level cannot be adjusted.

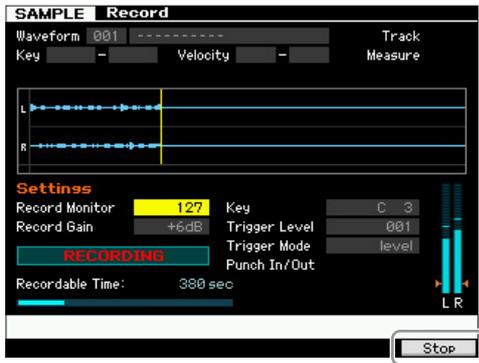
**11 [SF1] Confirm**  
This determines whether you can confirm the recorded Sample (on) or not (off) after Sampling is finished. This is useful for conveniently recording again if you are not satisfied with the Sampling results. When this is turned off, the recorded sample is fixed as data as soon as the Sampling is finished then the instrument returns to the Setup display (page 122). Please note that the instrument returns to the STANDBY display after the Sampling is finished when Record Next is turned on in the Setup display.

**12 [F5] Start**  
Press this button to start Sampling.  
When the Trigger mode is set to “level,” pressing the [F5] Start button calls up the WAITING indication on the display. Actual Sampling does not start. When audio signal exceeding the specified Trigger Level (7) is input to the

instrument, the RECORDING indication replaces the WAITING indication and Sampling starts. When the Trigger Mode (8) is set to “manual,” pressing this button starts Sampling immediately.

### Sampling RECORDING display

During Sampling, a graphic representation of the recorded audio appears in the display.



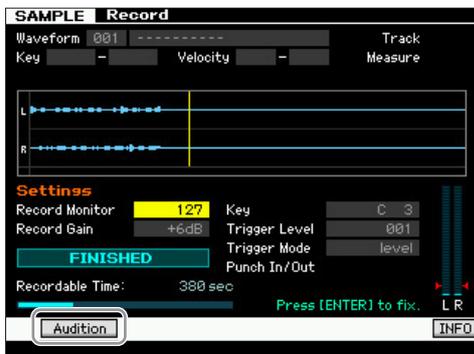
#### [F6] Stop

Press this button to stop Sampling. When Sampling is complete, the FINISHED display appears.

### Sampling FINISHED display (when Confirm is set to on)

When the [SF1] Confirm is turned on before Sampling starts, the FINISHED display below appears as soon as Sampling is finished. From this display, you can hear and confirm the Sample by pressing the [SF1] Audition button. If you are satisfied with the sound, press the [ENTER] button to fix the Sampling result as Sample data. If you are not satisfied with the Sampling result, press the [EXIT] button then try again.

When [SF1] Confirm is turned off before Sampling starts, the Sampling operation will automatically fix the Sample data and return to the Setup display (page 122).



#### [SF1] Audition

You can hear the recorded Sample by holding this button. This lets you check whether the Sampling has been executed appropriately or not.

**NOTE** When [SF1] Confirm (page 124) is turned off before the Sampling starts, the Sampling operation will automatically fix the Sample data and return to the Setup display (page 122). Please note that the instrument returns to the STANDBY display after Sampling is finished when Record Next is turned on in the Setup display.

Voice mode
Performance mode
Sampling mode 1
Song mode
Pattern mode
Mixing mode
Sampling mode 2
Master mode
Utility mode
File mode
Reference

# Sampling Edit

[INTEGRATED SAMPLING] → [EDIT]

The Sampling Edit mode gives you comprehensive, detailed controls for editing the recorded Sample and changing the Sample settings. Press the [EDIT] button from the Sampling Main display to call up the Sampling Edit display. Press the [EXIT] button to go back to the Sampling Main display.

## Sampling Edit procedure

### 1 Press the [INTEGRATED SAMPLING] button to enter the Sampling mode. (The indicator lights.)

The Sampling Main display (page 120) appears.

### 2 Select a Waveform and Key Bank.

Select a Waveform and Key Bank to which the Sample to be edited is assigned.

### 3 Press the [EDIT] button to enter the Sampling Edit mode.

### 4 Press the [F1] Trim or [F2] Param (Parameter) button.

Set the desired parameter in each display.

### 5 Press the [SF1] Audition button to hear the sound.

Repeat steps 4 and 5 as desired.

### 6 Press the [EXIT] button to go back to the Sampling Main display.

#### Hint

A convenient Extract function lets you delete unneeded portions of the Sample prior to the start point and after the end point, allowing you to save memory for additional Sampling.

#### 1 Press the [F1] Trim button to call up the Trim display.

#### 2 Press the [ENTER] button. (The display prompts you for confirmation.)

If you wish to cancel the operation, press the [DEC/NO] button.

#### 3 Press the [INC/YES] button to execute Extract.

**NOTE** The data deleted via the Extract operation cannot be recovered. Before executing the Extract, you may want to back up this Sample by using the Copy Job (page 130).

## Tips for editing the Samples

### How to play the Sample (Play Mode settings)

There are two methods for playing back the Sample: One shot and Loop. Loop lets you play the specified range of the Sample repeatedly in a loop. One Shot, on the other hand, lets you play the entire Sample only once. You'll need to determine which type (Loop or One Shot) is used by setting the Play Mode parameter in the Parameter display (page 128).

### Fine-tuning playback of One Shot Samples

You can determine the playback range of the Sample by setting the Start Point (6) and End Point (8) in the Trim display (page 127). These parameters effectively let you mute unnecessary or unwanted audio from the beginning and end of your Sample. To cut sound at the end of playback, decrease the End Point value, moving it leftward on the wave display. Similarly, to cut sound at the beginning of playback, increase the Start Point value, moving it rightward on the wave display. In general, you'll want to set the Start Point so that the beginning of the Sample plays back immediately when triggered. Use the [SF1] Audition button to check playback of the Sample, that it sounds smooth and natural. After setting and confirming the Start/End Points, trim them permanently from the Sample by using the Extract operation (page 135).

### Fine-tuning playback of Loop Samples

Setting the Start and End Points in a Loop Sample is generally more crucial and painstaking than with One Shot Samples. The Start and End Points must be set accurately to ensure that the Loop plays back smoothly and continuously without stutters or glitches. You'll also need to make sure (with rhythmic loops) that the Loop is in perfect rhythm and no beats are lost.

#### 1 Set the Play Mode to "loop."

Press the [F2] Param button to call up the Parameter display (page 128) then set the Play Mode (6) to "loop."

#### 2 Set the Start Point to the 1st beat of the 1st measure.

Press the [F1] Trim button to call up the Trim display (page 127) then set the Start Point (6).

#### 3 Set the Loop Point to the value same as the Start Point.

Press the [SF2] button so that the LP=ST is shown.

#### 4 While holding the [SF1] Audition button, adjust the End Point so that looped playback of the Sample is smooth and matches the beat timing.

#### 5 Execute the Extract operation (page 135).

### How to set the tempo of the Sample

If you do not know the tempo of the Sample containing the rhythm pattern, follow the instructions below.

- 1 While holding the [SF1] Audition button, adjust the Start Point and End Point so that looped playback of the Sample is smooth and matches the beat timing.**

Make sure to also use the Extract operation to delete unnecessary parts from the Sample.

- 2 Set the time signature and measure.**

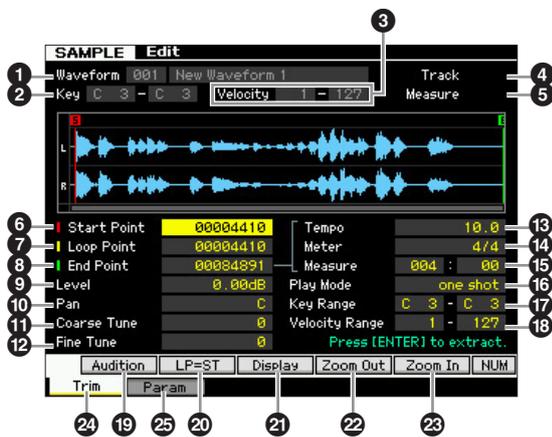
Press the [F1] Trim button to call up the Trim display (below) then set the time signature (14) and measure (15).

- 3 Increase or decrease the Tempo (13) as necessary so that the End Point (8) becomes equivalent to the end point applied to the original Sample.**

Set the Tempo (13) to a large value then decrease it gradually so that the End Point (8) increases gradually. Once you reach a certain value, the End Point no longer increases, even when you decrease the Tempo. The resulting value is the End Point applied to the original Sample. The final Tempo value is the most appropriate tempo for Sample playback.

## Sample Playback settings—[F1] Trim

This display lets you set the playback range and loop range of the Sample.



**NOTE** The NUM icon is shown on the tab corresponding to the [SF6] button depending on the selected parameter. In this condition, you can use the [F1] – [F6] buttons and the [SF1] – [SF5] buttons as numeric key pads by pressing the [SF6] button. For details, see page 36.

- 1 Waveform** (Indication only)  
Indicates the number and name of the selected Waveform.
- 2 Key (Key Range)** (Indication only)  
Indicates the key range of the currently selected Key Bank.

- 3 Velocity (Velocity Range)** (Indication only)  
Indicates the velocity range of the currently selected Key Bank.

- 4 Track** (Indication only)  
Indicates the track of the current Song/Pattern. This is available only when entering the Sampling mode from the Song/Pattern mode.

- 5 Measure** (Indication only)  
Indicates the measure number of the selected Song/Pattern. This is available only when entering the Sampling mode from the Song/Pattern mode.

- 6 Start Point**  
Determines the Start point for Sample playback. The part at the left side of this point will not be played back. When pressing the [SF2] button, the value of the Loop Point (7) is copied to the Start Point.

**Settings:** 0000000 – End point

- 7 Loop Point**  
Determines the Loop point at which the loop playback starts. When the Play mode is set to “loop,” the Sample is played back between this Loop point and the End point (8).

**Settings:** 0000000 – End point

- 8 End Point**  
Determines the End point for Sample playback. The part at the right side of this point will not be played back. The End Point will be automatically determined so that the length between the Start Point and the End Point matches the settings of the Tempo (13), Meter (14), and Measure (15).

**Settings:** 0000000 – (depending on the Sample’s length)

- 9 Level**  
Determines the output level of the selected Sample.

**Settings:** -95.25 dB – +0.00 dB

- 10 Pan**  
Determines the stereo pan position of the sound.

**Settings:** L64 (far left) – C (center) – R63 (far right)

- 11 Coarse Tune**  
Determines the coarse tuning for the pitch of the Sample in semitones.

**Settings:** -64 – +0 – +63

- 12 Fine Tune**  
Determines the fine tuning for the pitch of the Sample in cents.

**Settings:** -64 – +0 – +63

### 13 Tempo

Determines the Tempo of Sample playback. Setting the Tempo changes the End Point (8) so that the length between the Start Point and the End Point matches the settings of the Meter and Measure.

**Settings:** 5.0 – 300.0

### 14 Meter

Determines the meter (time signature) of Sample playback. Setting the Meter changes the End Point (8) so that the length between the Start Point and the End Point matches the settings of the Tempo and Measure.

**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

### 15 Measure

Determines the Sample length for playback based on measure and beat values, an intuitive and musically useful way to set Sample playback. Setting the Measure changes the End Point (8) so that the length between the Start Point and the End Point matches the settings of the Tempo and Meter.

**Settings:**

Measure: 000 – 032

Beat: 00 – 15 (Varies depending on the Meter setting.)

**NOTE** The Measure setting here indicates the length between the Start Point and End Point of the sample. When you wish to play two measures beginning from the Start Point of the sample, set the Measure parameter to "002:00."

### 16 Play Mode

Determines how the Sample is played back.

**Settings:** loop, one shot, reverse

loop

Sample playback begins from the Start point, continues to the Loop point, then repeats indefinitely between the Loop point and End point. This setting is useful for short rhythmic passages, riffs and beats that you want to play back repeatedly and continuously.

one shot

The Sample plays back one time from Start point to End point. This setting can be used for solos, sound effects and vocal passages that are used once without looping.

reverse

The Sample plays back one time in reverse from End point to Start point. This is useful for creating reversed cymbal sounds and other special effects.

### 17 Key Range

Indicates the key range of the Key Bank to which the selected Sample is assigned. By assigning different Samples from a single Waveform to separate key ranges, you can create a Voice that produces different sounds depending on what keys you play.

**Settings:** C -2 – G8

### 18 Velocity Range

Indicates the velocity range of the Key Bank to which the selected Sample is assigned. By assigning different Samples from a single Waveform to separate velocity ranges, you can create a Voice that produces different sounds depending on how strongly you play the keyboard.

**Settings:** 1 – 127

### 19 [SF1] Audition

You can hear the selected Sample by holding this button. This lets you check whether the Sample has been edited appropriately or not.

### 20 [SF2] LP=ST

When the menu indication here is "LP=ST," the Start (Start Point) and the Loop (Loop Start Point) will share the same address, meaning that both of them will be changed simultaneously, even if just one of them is changed. Pressing the [SF2] button in this condition changes the menu from "LP=ST" to "LP≠ST." When the menu indication here is "LP≠ST," the Start (Start Point) and the Loop (Loop Start Point) can be changed independently. When pressing the [SF2] button in this condition, the address value of the Start will be copied to the one of the Loop, with the result that both of them share the same address value. The menu indication also changes from "LP≠ST" to "LP=ST."

### 21 [SF3] Display

Pressing the [SF3] button adjusts the zoom level so that the entire wave, including the Start Point and End Point, is shown on the display.

### 22 [SF4] Zoom Out

### 23 [SF5] Zoom In

Press the [SF4] and [SF5] buttons to zoom in and out of the wave display.

### 24 [F1] Trim

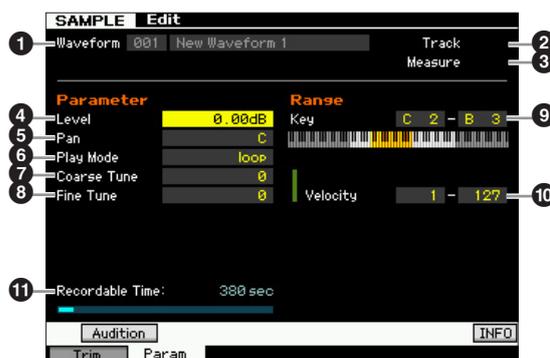
Pressing this button returns from the previous display to the Trim display.

### 25 [F2] Param (Parameter)

Pressing this button calls up the display that lets you set the Sample-related parameters and Key Bank range.

## Sample Parameter settings—[F2] Param

This display lets you set Sample-related parameters such as Key Range and Velocity Range.



Parameters ① – ⑩ are same as the ones on the Trim display (page 127).

**NOTE** The KBD icon is shown on the tab corresponding to the [SF6] button depending on the selected parameter. In this condition, you can enter the note number or velocity by pressing the appropriate note on the keyboard while holding the [SF6] KBD button. For details, see page 37.

**⑪ Recordable Time** (Indication only)

Indicates the available Sampling time using the available memory. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. The amount of memory space currently being used is shown in the display as a blue line.

**When different Key Banks overlap:**  
 When playing back a certain key with a certain velocity belonging to different Key Banks (in other words, different samples are assigned to this key and velocity), not all relevant samples may be played back and priority will be given to the two audio channels starting from the sample(s) assigned to the Key Bank having a smaller number. When a stereo sample is assigned to the Key Bank of the smallest number, for example, only that sample will be played back. When a mono sample is assigned to the Key Bank of the smallest number and a different sample is assigned to the Key Bank of the second smallest number, for 2nd example, only those two samples will be played back. When a mono sample is assigned to the Key Bank of the smallest number and a stereo sample is assigned to the Key Bank of the second smallest number, for 3rd example, only the mono sample will be played back. This rule applies to all modes of the instrument.

## Sampling Job

[INTEGRATED SAMPLING] → [JOB]

The Sampling Job mode lets you process and modify Samples you have recorded. 19 Sampling Jobs are available.

Function	Description
<b>[F1] Keybank</b>	<b>Jobs related to Samples assigned to the specified Key Bank</b>
01: Copy	This Job copies a specified Key Bank to another Waveform. Also the Sample assigned to the Key Bank is copied.
02: Delete	This Job deletes the specified Key Bank and its Sample.
03: Move	This Job moves a specified Key Bank to another Waveform. Also the Sample assigned to the Key Bank is moved.
04: Normalize	This Job maximizes (normalizes) the overall level of the specified Sample.
05: Time-Stretch	This Job lets you change the tempo of the Sample without changing the pitch.
06: Convert Pitch	This Job lets you change the pitch of the Sample without changing the tempo.
07: Fade In/Out	This Job lets you create a fade-in and fade-out for the Sample.
08: Half Sampling Frequency	This Job lets you halve the sampling frequency of the specified Sample.
09: Stereo to Mono	This Job lets you convert a stereo Sample to a mono Sample.
10: Loop-Remix	This Job lets you automatically cut the Sample into separate "slices" and randomly rearrange the slices for special effects and unusual rhythmic variations.
11: Slice	This Job lets you divide the Sample into separate slices following the specified settings. When entering this Job from the Song/Pattern mode, note data for playing the slices in sequence is also created. Note data playback sounds just like the original Sample being played back.
<b>[F2] Waveform</b>	<b>Waveform Jobs</b>
01: Copy	This Job lets you copy the data of one Waveform to another. The Key Banks and Samples included in the Waveform are also copied by this Job.
02: Delete	This Job lets you delete a specific Waveform from memory. The Key Banks and Samples included in the Waveform are also deleted.
03: Extract	This Job lets you delete all unnecessary Sample data (located ahead of the Start Point and located after the End Point).
04: Transpose	This Job lets you transpose the Key Bank setting of a specified Waveform in semitones.
05: Rename	This Job lets you edit the name of the specified Waveform.
<b>[F3] Other</b>	<b>Other Jobs</b>
01: Optimize Memory	This Job optimizes the memory (DRAM) for Sampling.
02: Delete All	This Job deletes all the Waveforms.
03: Copy to Flash Memory	This Job copies the Sample data on SDRAM to the optional Flash Memory Expansion Module (FL512M/FL1024M) as a Waveform.

Voice mode  
 Performance mode  
 Sampling mode 1  
 Song mode  
 Pattern mode  
 Mixing mode  
 Sampling mode 2  
 Master mode  
 Utility mode  
 File mode  
 Reference

## Sample Job procedure

**1 Press the [JOB] button in the Sampling mode to enter the Sampling Job mode.**

**2 Call up the desired Job group.**

Select the Job group by pressing one of the [F1] Keybank, [F2] Waveform, and [F3] Other buttons.

**3 Call up the desired Job display.**

Move the cursor to the desired Job by using the data dial, [INC/DEC] and [DEC/NO] buttons or Cursor up/down button, then press the [ENTER] button. The desired Job display appears. Press the [EXIT] button to go back to the Job menu display.

**4 Set the value of the desired parameters.**

Move the cursor to the desired parameter, then set the value by using the data dial, [INC/YES] and [DEC/NO] button.

When “Apply” appears on the menu corresponding to the [SF4] button, go to step 5. When “Apply” does not appear, go to step 7.

**5 Press the [SF4] Apply button to execute the Job.**

At this time, the Sample has been modified temporarily and not fixed as data.

**6 Confirm the result of the Job operation.**

Press the [SF1] Audition button to hear the modified Sample. If you are satisfied with the result, go on to the step 7. If you are not satisfied with the results and want to try again, press the [SF4] Apply button again to abort the Job operation and return the Sample to the original status. In this case, attempt the operation again from step 4.

**7 Press the [ENTER] button to fix the Job result as Sample data.**

### NOTICE

You cannot return the modified Sample to the original after fixing the Job result. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

**8 Press the [EXIT] button twice to go back to the Sampling Main display.**

**NOTE** If there is no data in the specified Waveform and Key Bank, “No Data” will appear on the display and the job cannot be executed.

**NOTE** Some Jobs cannot be executed if there is not enough memory space. The amount of the available memory space can be confirmed at the bottom of the Sampling Job display or in the Information display (page 123).



Available memory space

### NOTICE

Even if the Job operation has been completed, the data will be lost when turning the power off. Make sure to save the Waveform data to a USB storage device or to a computer connected to the same network as the MOTIF XF in the File mode (page 241) after the Job operation.

## [F1] Keybank

This display contains Jobs for editing Samples. The Sample to be edited can be specified via the Waveform number and Key Bank.

### Basic Operations in the Key Bank Jobs

The Key Bank Jobs provide the basic operations using the [SF1] button and the [SF5] button.



### [SF1] Audition

You can hear the Sample assigned to the selected Keybank by holding this button. This lets you check how the Sample will actually sound when played back.

### [SF5] Keybank

Pressing this button calls up the Key Bank list, from which you can select the desired Key Bank.

### [SF6] KBD (Keyboard)

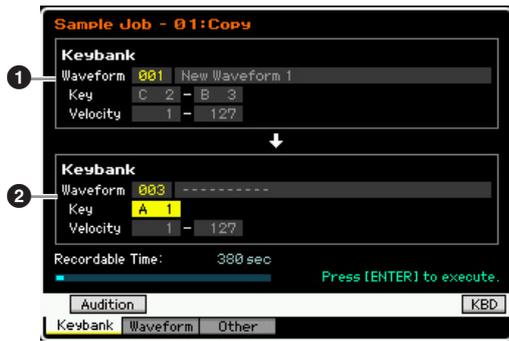
This menu appears only when the cursor is located at the Waveform. You can also select the Key Bank belonging to the selected Waveform directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key.

### [SF6] INFO (Information)

When “INFO” is shown at the tab menu corresponding to the [SF6] button, press [SF6] to call up the Information window indicating the memory status for Sampling. For details, see page 123.

### 01: Copy

This Job copies the data of a Sample contained in a specified Key Bank to another Key Bank. Also the Sample assigned to the Key Bank is copied. This is useful if you are creating a Waveform and wish to use the Sample data from another Waveform.



- 1 Source Key Bank
- 2 Destination Key Bank

The source Key Bank is set by using the [SF5] Keybank button or [SF6] KBD button to select the key in the waveform after selecting the Waveform number (001 – 128). The source Key Bank is set by moving the cursor to the Key value and using the Data dial or [SF6] KBD button to select the desired key after selecting the Waveform number (001 – 128). The Velocity range values of the destination Key Bank are automatically set to the same as those of the source Key Bank.

**NOTE** You can hear the sample assigned to the source Key Bank by pressing the [SF1] Audition button.

## 02: Delete

This Job deletes the specified Key Bank and its Sample. By deleting unnecessary Samples, you can increase the available memory space.



- 1 Key Bank to be deleted

Determines the Key Bank to be deleted by setting the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

## 03: Move

This Job moves a specified Key Bank to another Waveform. Also the Sample assigned to the Key Bank is moved.



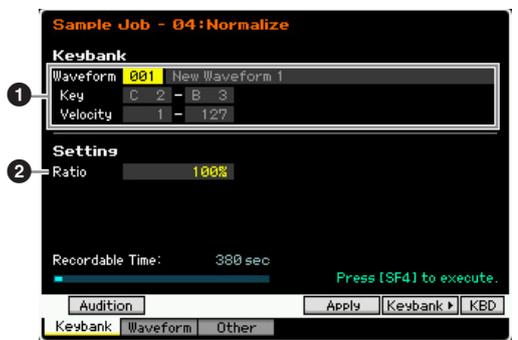
- 1 Source Key Bank
- 2 Destination Key Bank

Determines the Key Banks of source and destination respectively by setting the Waveform number (001 – 128). Setting the source Waveform number calls up one of the Key Banks (the Key range and Velocity range) which can be changed by pressing the [SF5] Keybank button and [SF6] KBD button. The Key range and Velocity range of the destination Key Bank are automatically set to the same values as those of the source Key Bank.

**NOTE** You can hear the sample assigned to the source Key Bank by pressing the [SF1] Audition button.

## 04: Normalize

This Job maximizes (normalizes) the overall level of the specified Sample. This is useful for bringing up the volume of a Sample that was inadvertently recorded at a low level.



- 1 Key Bank

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

- 2 Ratio

Determines the post-normalization Sample level. A setting of 100% maximizes the level so that the highest peak level in the Sample is just below clipping (maximum digital signal level). Settings higher than 100% will raise the Sample level above the maximum, producing deliberate clipping. Normally, set this to 100% or less.

**Settings:** 1% – 800%

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

**NOTICE**

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

**05: Time-Stretch**

This Job lets you change the length of the Sample without changing the pitch. By using this Job, you can synchronize Sample playback with Song/Pattern playback, since changing the Sample length also changes the tempo of Sample playback



**1 Key Bank**

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

**2 Ratio**

Determines the length of the post-process Sample as a ratio of the length of the original Sample (100%). The tempo change can be calculated as follows.  
Ratio value = (original tempo/modified tempo) x 100.  
**Settings:** 25% – 400%

**3 Accuracy**

Determines the quality of the resulting Sample by specifying which aspect of the original is to be emphasized: sound quality or rhythmic feel.  
**Settings:** sound4 – sound1, normal, rhythm1 – rhythm 2  
sound4 – sound1  
These settings place emphasis on sound quality, with the “sound4” setting producing the highest sound quality.  
normal  
Produces an optimum balance of sound quality and rhythmic feel.  
rhythm1 – rhythm2  
These settings place emphasis on rhythmic feel, with the “rhythm2” setting producing the most accurate rhythmic feel.

**NOTICE**

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

**06: Convert Pitch**

This Job lets you change the pitch of the Sample without changing the tempo.



**1 Key Bank**

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

**2 Pitch**

Determines the amount and direction of pitch shift in semitone increments.  
**Settings:** -12 – +0 – +12

**3 Fine**

Determines the amount and direction of pitch shift in cent increments (1 cent = 1/100th of a semitone). 1 cent is equivalent to 1/100th of a semitone.  
**Settings:** -50 – +0 – +50

**NOTICE**

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

**07: Fade In/Out**

This Job lets you create a fade-in and fade-out for the Sample.



### 1 Key Bank

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

### 2 Fade Type

Determines the type of level fade: fade-in or fade-out.

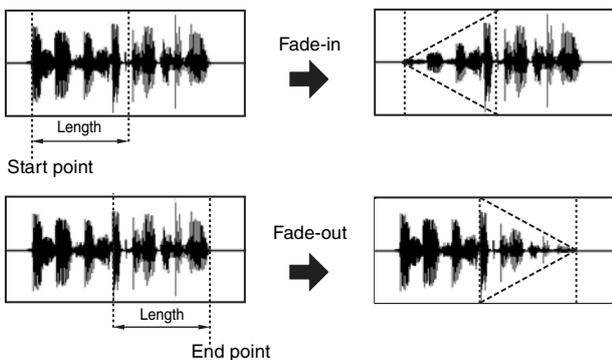
**Settings:** fade in, fade out

### 3 Length

Determines the length of the fade-in or fade-out. When a fade-in is selected, this parameter specifies the length of the fade starting at the specified Start point. When a fade-out is selected, this parameter specifies the length of the fade starting at the beginning of the fade and ending at the specified End point.

A Length setting of 4410 is roughly equivalent to 0.1 seconds when the Frequency is set to 44.1 kHz in the Setup display (page 122) of the Sampling mode.

**Settings:** 0000000 – End point



### NOTICE

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

## 08: Half Sampling Frequency

This Job lets you halve the sampling frequency of the specified Sample. This can be used to convert hi-fi Samples to a lo-fi sound, and reduce the Sample size by half to conserve memory.



### 1 Key Bank

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

### NOTICE

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

## 09: Stereo to Mono

This Job lets you convert a stereo Sample to a mono Sample.



### 1 Key Bank

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

### 2 Type

Determines which channel, or both channels, of the stereo Sample will be converted to a mono Sample.

**Settings:** L+R ► mono, L ► mono, R ► mono

**L+R ► mono**

The left and right channels of a stereo Sample are mixed and converted to a mono Sample.

**L ► mono**

The left channel of a stereo Sample is converted to a mono Sample.

**R ► mono**

The right channel of a stereo Sample is converted to a mono Sample.

### NOTICE

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

## 10: Loop-Remix

This Job lets you automatically cut the Sample into separate “slices” and randomly rearrange the slices for special effects and unusual rhythmic variations.



### 1 Key Bank

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

### 2 Type

Determines the degree to which the looped portion of the Sample will be sliced.

**Settings:** 1 – 4

### 3 Variation

Determines how the original Sample is varied by this Job.

**Settings:** normal1 – 2, reverse1 – 2

normal1 – 2

These settings slice and rearrange the Sample data, without performing any other audio changes.

reverse1 – 2

In addition to slicing and rearranging, these settings reverse the playback of some of the slices.

### NOTICE

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

## 11: Slice

This Job lets you divide the Sample into separate “slices,” the number of which is determined by the note length (with Measure, Meter, and Sub Divide). Sliced Samples are assigned to each of keys in ascending order from the Key Bank specified at the Lowest Key (7) parameter. When entering this Job from the Song/Pattern mode, note data for playing the slices in sequence is also created. Playing back the note data and the slices in order results in the same sound as the original “un-sliced” Sample.



### 1 Key Bank

Determines the Key Bank to which the desired Sample is assigned by specifying the Waveform number (001 – 128). The Key range and Velocity range of the Key Bank to which the selected Waveform is assigned are automatically shown below the Waveform number.

### 7 Lowest Key

Specifies the lowest key number from which the sliced Samples are assigned in order.

**Settings:** C -2 – G8

**NOTE** In the Record Slice display of the Sampling Record mode (page 208), this parameter is fixed to “C1” for the MOTIF XF6, “E0” for the MOTIF XF7, and “A -1” for the MOTIF XF8, and cannot be set.

### 2 Type (Slice Type)

### 3 Measure

### 4 Meter

### 5 Sub Divide

### 6 Sens

### 8 Tempo

With the exception of the Lowest Key parameter, all parameters and settings are the same as in the Record Slice display of the Sampling Record mode (page 208) which appears after Sampling is completed with the Type set to “slice+seq.”

### NOTICE

The Job execution is divided into two stages: temporary data conversion via the [SF4] Apply button and actual data entry via the [ENTER] button. The Job result will be lost if you call up a different display without finalizing the data via the [ENTER] button.

## [F2] Waveform Jobs

This display contains Jobs for editing Waveforms.

### 01: Copy

This Job lets you copy the data of one Waveform to another. The Key Banks and Samples included in the Waveform are also copied by this Job.



- 1 **Waveform as source**
- 2 **Waveform as destination**

Determines the copy source and destination Waveform numbers.

**NOTICE**

This operation overwrites any data previously existing at the destination Waveform number.

**02: Delete**

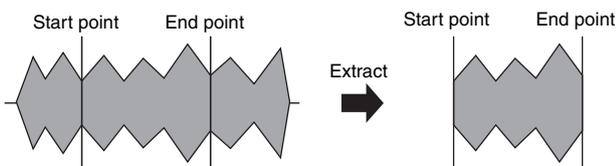
This Job lets you delete a specific Waveform from memory. The Key Banks and Samples included in the Waveform are also deleted.

**Waveform**

Determines the Waveform number to be deleted.

**03: Extract**

This Job lets you delete all unnecessary parts of the Sample (located ahead of the Start Point and located after the End Point).



**Waveform**

Determines the Waveform number to be extracted.

**04: Transpose**

This Job lets you transpose the Key Bank setting of a specified Waveform in semitones or in octaves.



1 **Waveform**

Determines the Waveform number to which this Job is applied.

2 **Octave**

Determines the amount in octaves by which the Key Bank is transposed. When you want to transpose by less than one octave, set this to "0" and use the Note parameter below.

**Settings:** -3 - +0 - +3

3 **Note**

Determines the amount in semitones by which the Key Bank is transposed. When you want to transpose by exact octaves, set this to "0" and use the Octave parameter above.

**Settings:** -11 - +0 - +11

**05: Rename**

This Job lets you assign a name to the selected Waveform.



1 **Waveform**

Determines the Waveform number to which this Job is applied.

2 **Name**

Determines the Waveform name which can contain up to 10 characters. For detailed instructions on naming, refer to "Basic Operation" on page 37.

**[F3] Other Jobs**

**01: Optimize Memory**

This Job optimizes the memory (SDRAM) for Sampling. Optimization consolidates areas of used and unused (available) memory to create the largest possible area of contiguous available memory. In some cases, the amount of remaining memory will be increased when you execute the Optimize Memory Job.

**02: Delete All**

This Job deletes all the user Waveforms. The Key Banks and Samples included in the Waveform are also deleted.

**03: Copy to Flash Memory**

This Job copies the Sample data on SDRAM to the optional Flash Memory Expansion Module (FL512M/FL1024M) as Waveforms.

File mode  
Utility mode  
Master mode  
Sampling mode 2  
Mixing mode  
Pattern mode  
Song mode  
Sampling mode 1  
Performance mode  
Voice mode  
Reference

# Song Playback

The Song mode lets you record, edit and play your own original Songs. The Song Play mode is the main 'portal' by which you enter the Song mode, and it is here where you select and play a Song. Some of the Song settings—such as the rhythmic feel—can also be edited in this mode. To call up the Song Play display and enter the Song mode, simply press the [SONG] button.

**NOTE** From the Track View display in the Song Play mode, you can select the Voice of the Mixing Part corresponding to the current Track by pressing the [CATEGORY SEARCH] button.

## Song Playback Procedure

### 1 Press the [SONG] button to enter the Song Play mode.

This operation calls up the Track View display in the Song Play mode.



### 2 Select a Song.

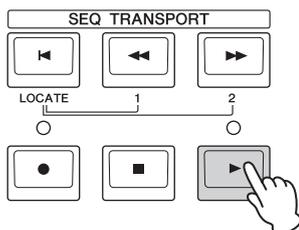
Move the cursor to the Song number, then select the desired Song by using the data dial, [INC/YES] and [DEC/NO] buttons. The name of the selected Song is displayed.

**NOTE** If you press the [PROGRAM] button so that its lamp lights, you can select the desired Song by using the Group [A] – [D] buttons and the Number [1] – [6] buttons. Song numbers and the corresponding buttons are as follows.

Button Combinations	Song number
[A]+[1] – [16]	01 – 16
[B]+[1] – [16]	17 – 32
[C]+[1] – [16]	33 – 48
[D]+[1] – [16]	49 – 64

### 3 Press the [▶] (Play) button to start the selected Song.

When playback of the selected Song is finished, the Song automatically stops.



Press the [■] (Stop) button to stop playback of the Song. Press the [▶] (Play) again to resume playback from that point.

## Playback types

### Playback from the middle of the Song

To start playback of the Song from midway through the Song, set the desired location by using the controls below, then press the [▶] (Play) button. These operations can be also executed during playback.

Forward	Press the [▶▶] (Forward) button.
Fast forward	Hold the [▶▶] (Forward) button.
Rewind	Press the [◀◀] (Rewind) button.
Fast Rewind	Hold the [◀◀] (Rewind) button.
Move to the top of the Song	Press the [⏪] button.
Move to location 1	While holding the [⏪] button, press the [◀◀] (Rewind) button.
Move to location 2	While holding the [⏪] button, press the [▶▶] (Forward) button.

### When the Song is not played back properly:

Keep in mind that starting a Song from somewhere in the middle may cause playback problems, such as the wrong sound, incorrect pitch or unexpected volume changes. This may occur because the MIDI events recorded at the start the Song have not been recognized by the tone generator section, since playback has started at a different point in the Song, with different MIDI events. To prevent this from happening, set the Song Event Chase parameter (4) to "PC+PB+Ctrl" or "all" in the Other display (page 233) of Sequencer Setup (called up via the [SEQ SETUP] button). With this setting, the Song will be played back properly even when starting playback from the middle of the Song.

### Assigning specific measure numbers to Locations 1 and 2

To assign specific measure numbers to locations 1 and 2, select the desired measure number then press the [◀◀]/[▶▶] (Rewind/Forward) button while holding the [STORE] button. The setting here will be shown at the top of the display.



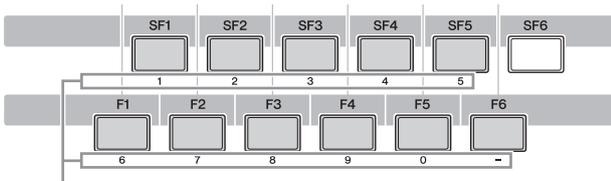
From this display, you can change the Song playback position by following the operations below.

### Fast Forward/Rewind

- 1 Move the cursor to Measure.
- 2 Move forward or backward through the measures by using the [INC/YES], [DEC/NO] buttons and the data dial.

### Moving to a desired location in the Song

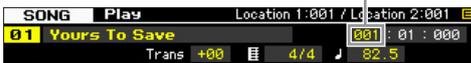
- 1 Move the cursor to Measure.
- 2 Press the [SF6] NUM button so that the [SF1] – [SF5] and [F1] – [F6] buttons function as number buttons.



The [SF1] – [SF5] and [F1] – [F6] buttons function as number buttons.

- 3 Enter the destination measure by using the [SF1] – [SF5] and [F1] – [F5] buttons. The measure number you input will appear at the top of the display.

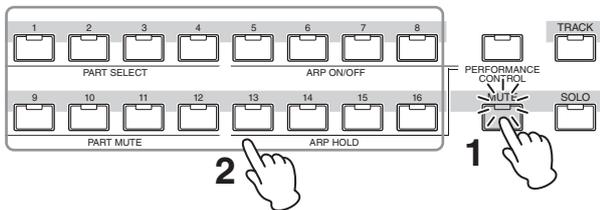
Shows the measure number to be entered.



- 4 Press the [ENTER] button to actually move the Song playback position to the destination set above.

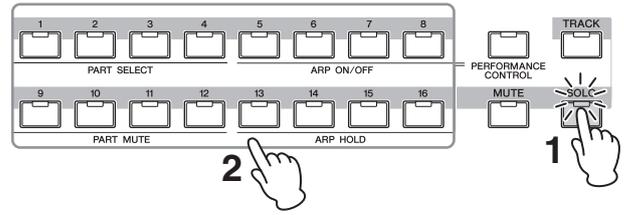
### Track mute/solo

#### To mute a track



- 1 Press the [MUTE] button so that its indicator lights.
- 2 Press any of the Number buttons [1] to [16] corresponding to the track you want to mute. When pressing any of the Number buttons [1] – [16], the lamp of the pressed button will be turned off and the corresponding track will be muted. Pressing the same Number button again enables output of the playback sound.

#### To solo a track



- 1 Press the [SOLO] button so that its indicator lights.
- 2 Press any of the Number buttons [1] to [16] corresponding to the track you want to solo. When pressing any of the Number buttons [1] – [16], the lamp of the pressed button will flash and only the corresponding track will be sounded. Pressing the different Number button changes the soloed track.

### Change the tempo

- 1 Move the cursor to Tempo.
- 2 Edit the Tempo value by using the [INC/YES], [DEC/NO] buttons and the data dial.



### Assigning various settings related to Song playback (Song Scene)

You can assign five different “snapshots” of important Song-related parameters such as transpose, tempo, track mute status, and the basic Song Mixing setup to the [SF1] – [SF5] buttons as Song Scenes. One of the convenient advantages of Song Scene is that it lets you instantly and automatically execute parameter settings that normally require many button presses or controller operations. Use it during Song recording or playback to make instantaneous setting changes.

#### Song Scene parameters

Tempo	Song mode	Track View display (page 139)
Transpose		
Play Effect settings for 16 tracks	Mixing mode	Play FX display (page 141)
Volume settings for 16 Mixing Parts		Part 1-16 display (page 190)
Pan settings for 16 Mixing Parts		
Reverb Send settings for 16 Mixing Parts		
Chorus Send settings for 16 Mixing Parts		
Cutoff Frequency settings for 16 Mixing Parts		EG display (page 194)
Resonance settings for 16 Mixing Parts		
AEG Attack settings for 16 Mixing Parts		
AEG Release settings for 16 Mixing Parts		

Voice mode  
 Performance mode  
 Sampling mode 1  
 Song mode  
 Pattern mode  
 Reference  
 Mixing mode  
 Sampling mode 2  
 Master mode  
 Utility mode  
 File mode

## Registering the Song Scene

After making the desired settings for the Scene, simultaneously hold down the [STORE] button and press one of the [SF1] to [SF5] buttons. The 8th note icon is shown in the tab corresponding to the Sub Function button to which the Song Scene is registered. Press the [STORE] button to store the Song data including the Song Scene setting.

### NOTICE

The Song Scene settings registered to the [SF1] – [SF5] buttons will be lost if you change the Song or turn the power off without executing the Store operation.

## Recalling the Song Scene

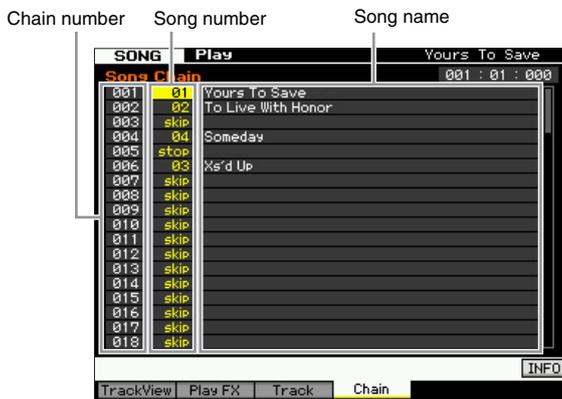
You can recall the Song Scene by press one of the [SF1] to [SF5] buttons.

## Song Chain Playback

Song Chain Playback allows you to put together a play list of preset Songs, in any desired order, and have them automatically play back in sequence. You can set the order of Song playback then start the Chain Playback from the Song Chain display.

**NOTE** For instructions on programming the Song Chain, refer to the description about the Song Chain display (page 143).

### 1 From the Track Vies display, press the [F4] button to call up the Song Chain display (page 143).



### 2 Press the [▶] (Play) button to start the Song Chain playback.

The Songs are played back according to the order of the Chain.

When an empty Song is assigned to the Chain number, one measure of silence is counted, followed by playback of the next Song.

When a “skip” is assigned to the Chain number, the assigned Song will be ignored or skipped then next Song will start.

When a “stop” is assigned to the Chain number, playback will be stopped at that Song. Press the [▶] (Play) button to restart playback from the next Chain number.

If an “end” is assigned to the Chain number, playback will stop at the end of the Song.

### 3 If you wish to stop playback in the middle of a Song Chain, press the [■] (Stop) button.

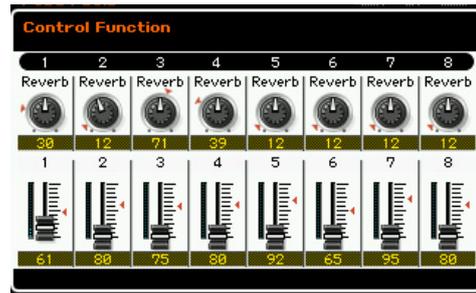
**NOTE** The Song Chain can only be played back in the Song Chain display, and not from any other display.

## Knobs and Sliders

By using the knobs on the front panel, you can adjust various parameters such as pan, effect, cutoff frequency and resonance for each part (track) of the Song. By using the sliders, you can change the volume of each Part (track) and adjust the relative balance among the Parts (tracks).

### Adjusting the Pan and Effect parameters for each Part

Press the [MULTI PART CONTROL] button to call up the Control Function window.



### Switching the Parts to be edited: 1 – 8 and 9 – 16

When the Control Function window is shown after pressing the [MULTI PART CONTROL] button, each knob/slider controls each Part and you can change the target parts to be controlled between Parts 1 – 8 and 9 – 16. When the target Parts are 9 – 16 (the display is for Parts 9 – 16), pressing any of the [1] – [8] buttons changes the target Parts from 9 – 16 to 1 – 8. When the target Parts are 1 – 8 (the display is for Parts 1 – 8), pressing any of the [9] – [16] buttons changes the target Parts from 1 – 8 to 9 – 16.

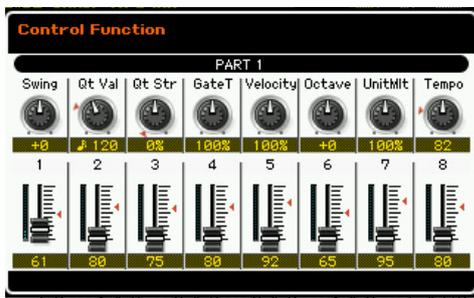
## Knob Functions

Pressing the [MULTI PART CONTROL] button turns on the lamps in the descending order: REVERB → CHORUS → PAN. When the REVERB lamp is turned on, the knobs let you adjust the Reverb Send for each part. When the CHORUS lamp is turned on, the knobs let you adjust the Chorus Send for each part. When the PAN lamp is turned on, the knobs let you adjust the Pan for each part.

**NOTE** Holding down the [MULTI PART CONTROL] button for a few seconds will alternate the lit lamp from the current one to REVERB.

## Adjusting the Cutoff Frequency and Resonance for each Part

Press the [SELECTED PART CONTROL] button to call up the Control Function window.



### Selecting a target Part

The functions assigned to the knobs are applied only to the currently selected Part. To change the Part, call up the Control Function window, then press one of the [1] – [16] buttons.

### Knob Functions

As listed below, various functions are assigned to Knobs 1 – 8 depending on which lamp is turned on—the TONE 1, TONE 2, and ARP FX lamps which can be switched via the [SELECTED PART CONTROL] button.

	Knob 1	Knob 2	Knob 3	Knob 4
TONE 1	Cutoff	Reso	Attack	Decay
TONE 2	LowGain	MidFreq	MidGain	MidQ
ARP FX	Swing	Qt Val	Qt Str	GateT

	Knob 5	Knob 6	Knob 7	Knob 8
TONE 1	Sustain	Release	Assign1	Assign2
TONE 2	HighGain	Pan	Reverb	Chorus
ARP FX	Velocity	Octave	UnitMlt	Tempo

**NOTE** For details about each function, see page 46.

## Adjusting the volume of each Part

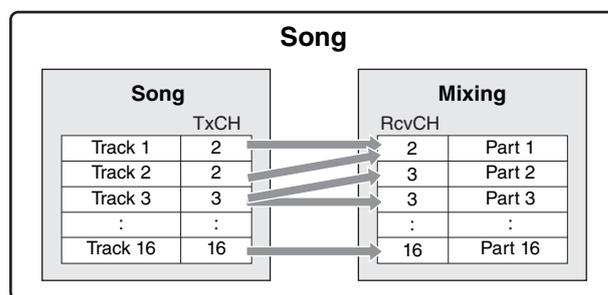
The Sliders lets you adjust the volume for each Part.

### Switching the Parts to be edited: 1 – 8 and 9 – 16

When the current part is any of 1 – 8, the eight sliders adjust the volume for Parts 1 – 8. When the current Part is any of 9 – 16, the eight sliders adjust the volume for Parts 9 – 16. The Part can be selected by turning the [TRACK] on and pressing the desired Number button.

## Mixing Setup for each track

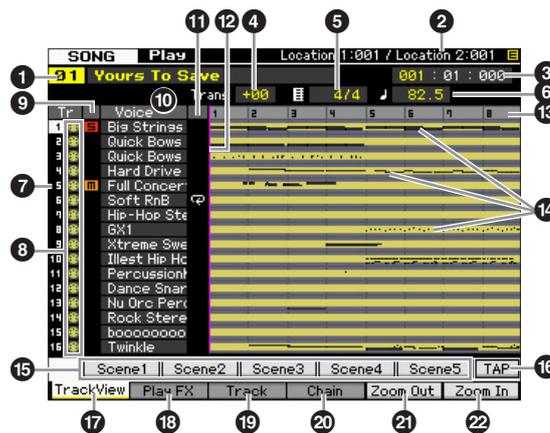
To edit the Mixing parameters such as Voice, volume and pan for each track, press the [MIXING] button to enter the Mixing mode (page 188) then edit them for the Mixing Part corresponding to the desired track. Note that track 1 does not always correspond to the Mixing Part 1. As illustrated below, each track of the Song sequence data and each Mixing Part of the tone generator block are connected when the transmit channel (TxCH) equals the receive channel (RcvCH). In other words, the sequence data of each track plays the corresponding Parts (those having the same MIDI channel assignment) in the tone generator block. The Transmit Channels of each track can be set in the Song Track display (page 142) of the Song Play mode while the Receive Channels of each Part can be set in the Voice display (page 194) of the Mixing mode.



## Track View display—[F1] TrackView

[SONG]

This display always appears first when the Song mode is engaged.



### 1 Song number, Song name

Determines the Song to be played back.

#### Settings:

Song number: 01 – 64

Song name: See the Note below.

**NOTE** You can edit the Song name by moving the cursor to the corresponding location and pressing the [SF6] CHAR button. For details, see page 37.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

**2 Location** (Indication only)

Indicates the measure number assigned to Location 1 and 2. For detailed instructions on setting the Location, see page 136.

**3 Meas (Measure)**

Determines the location at which playback starts. This also indicates the current location of playback. For detailed instructions on setting the measure, see page 136.



**Settings:**

Measure: 001 – 999  
Beat, Clock: Indication only

**4 Trans (Transpose)**

Adjusts the tuning in semitone increments.

**Settings:** -36 – +36

**5 Time signature (Meter)**

Determines the meter (time signature) of the Song. The setting here is applied to the specified Measure (3) and subsequent measures. This allows you to enter different time signatures in the middle of a song. When setting the Measure (3) at which playback starts to a time signature other than that at the song beginning, for example, the time signature before the Measure (3) is maintained even if you change the time signature here.

**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

**6 Tempo**

Determines the Song playback tempo.

**Settings:** 5.0 – 300.0

**NOTE** If you are using this instrument with an external sequencer, a computer, or other MIDI device, and you want to make the Song tempo controlled by the external device(s), set the MIDI sync (5) parameter in the MIDI display (page 228) of the Utility mode to "MIDI." In that case, the Tempo parameter here indicates "MIDI" and cannot be changed.

**7 Track number** (Indication only)

Indicates the track number.

**8 Data status** (Indication only)

Indicates whether the data is recorded or not to each of tracks.

Blank: Indicates the track is empty.

: Indicates the MIDI sequence data has been recorded. This is handled as a MIDI track.

: Indicates the sample data has been recorded in addition to MIDI sequence data. This is handled as an Audio track.

**NOTE** For Mixing Parts that correspond to Audio tracks, a Sample Voice is assigned. For Mixing Parts that correspond to MIDI tracks, a Voice other than a Sample Voice is assigned. For more information about Audio tracks and MIDI tracks, see page 14.

**9 Mute/Solo** (Indication only)

Indicates the Mute/Solo status for each track. For detailed instructions on setting Mute/Solo, see page 137.

Blank: Neither Mute nor Solo are assigned to this track.

: Indicates muted track.

: Indicates soloed track.

**10 Voice Name**

Indicates the Voice name of the Mixing Part corresponding to each track.

**11 Loop** (Indication only)

Determines whether or not Loop playback is set for each track. The track for which Loop is turned on plays repeatedly following the setup of the Track Loop display (page 143).

**Settings:** Blank (Loop off), (Loop on)

**12 Song Position Line**

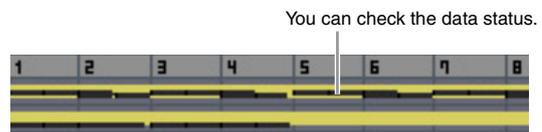
Indicates the current location of the Song playback set at Measure above.

**13 Measure number** (Indication only)

Indicates the measure number. By pressing the [F5] Zoom Out or [F6] Zoom In button, you can zoom in or zoom out over the interval between the adjacent measures.

**14 Sequence data bar**

Indicates whether data has been recorded or not to each of tracks. You can check the range over which the data is recorded for each track. For MIDI tracks, you can view all the timings at which MIDI events have been recorded.



You can check the data status.

**15 [SF1] Scene1 – [SF5] Scene5**

You can assign the settings of the Song-related parameters (Song Scene) and the Arpeggio-related parameters to these buttons. You can also recall the settings by pressing these buttons. For detailed instructions on registering Scenes, see page 137. For detailed instructions on setting the Arpeggio-related parameters, see page 147.

**NOTE** The Arpeggio is not available during Song playback. Pressing the [SF1] Scene 1 – [SF5] Scene 5 buttons during playback changes only the Song Scene.

**NOTE** After registering the Song Scene, the 8th note icon will appear on the tab corresponding to the pressed button. You can confirm whether the Arpeggio Type is assigned to that button in the Arpeggio display (page 147) of Song Record.

**16 [SF6] TAP**

The speed at which you press this button several times will determine the playback tempo of the Arpeggio/Song.

**17 [F1] TrackView**

Calls up the Track View display.

**18 [F2] Play FX (Play Effect)**

Calls up the Play Effect display (below). By changing the timing and velocity of the notes, you can change the rhythmic “feel” of the Song playback.

**19 [F3] Track**

Calls up the Song Track Output Channel display (page 142).

**20 [F4] Chain**

Calls up the Song Chain display (page 143). This display lets you play back multiple Songs sequentially.

**21 [F5] Zoom Out**

**22 [F6] Zoom In**

Changes the zoom level of Measure number (13) of the Track View display. Press the [F5] Zoom Out button to reduce the Zoom level so that a wider range can be displayed. Press the [F6] Zoom In button to raise the Zoom level so that a magnified view can be displayed.

## Changing the rhythmic “feel” of the Song—[F2] Play FX (Play Effect)

By changing the timing and velocity of the notes, you can change the rhythmic “feel” of Song playback. The Play Effect settings made here are only temporary and don’t change the actual data in the Song. The Play Effect settings can be applied actually to the Song data by using the Normalize Play Effect Job.

Tr.	Quantize Value	Quantize Str	Swings Vel	Swings Gate	Swings Rate	Note Shift	Clock Shift	Gate Time	Velocity Rate	Offset
1	off	100%				+0	+0	100%	100%	+0
2	♩	100%	100%	100%	0	+0	+0	100%	100%	+0
3	♩	100%	100%	100%	0	+0	+0	100%	100%	+0
4	♩	100%	100%	100%	0	+0	+0	100%	100%	+0
5	off	100%				+0	+0	100%	100%	+0
6	off	100%				+0	+0	100%	100%	+0
7	off	100%				+0	+0	100%	100%	+0
8	off	100%				+0	+0	100%	100%	+0
9	off	100%				+0	+0	100%	100%	+0
10	off	100%				+0	+0	100%	100%	+0
11	off	100%				+0	+0	100%	100%	+0
12	off	100%				+0	+0	100%	100%	+0
13	off	100%				+0	+0	100%	100%	+0
14	off	100%				+0	+0	100%	100%	+0
15	off	100%				+0	+0	100%	100%	+0
16	off	100%				+0	+0	100%	100%	+0

**1 Track number** (Indication only)

Indicates the track number.

**2 Quantize**

This lets you align the timing of the note events according to the specified note type. Here, set the two parameters for each track: Value and Str (Strength).

**Quantize Value**

Determines to what beats the note data in the Arpeggio sequence data will be aligned, or determines to what beats in the Arpeggio sequence data the swing is applied.

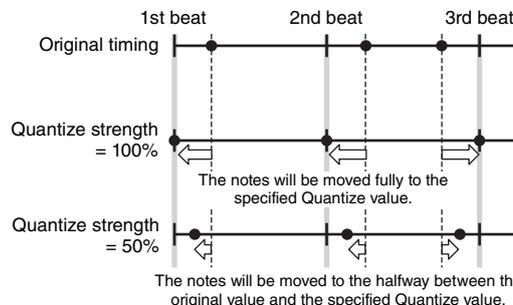
**Settings:** off, 32nd note, 16th note triplet, 16th note, 8th note triplet, 8th note, 1/4 note triplet, 1/4 note

**Quantize Str (Quantize Strength)**

Sets the “strength” by which note events are pulled toward the nearest quantize beats. A setting of 100% produces exact timing set via the Quantize Value parameter above. A setting of 0% results in no quantization. A setting of 50% result that the note events are pulled to the half point between the 0% and 100%.

**Settings:** 0% – 100%

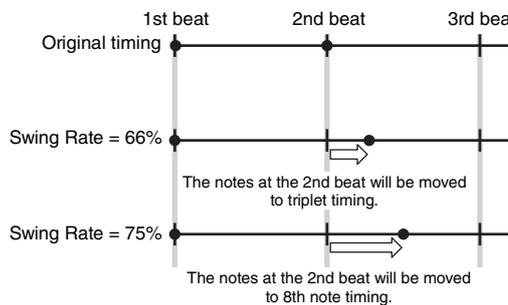
When quarter-note quantization is applied to the original data:



**3 Swing**

Adjusts the timing, velocity, and gate time (the length of time a note sounds) of the even-numbered back-beat notes to enhance the swing feel. This parameter delays notes on even-numbered beats (backbeats) to produce a swing feel. For example, if the meter is 4/4 and the quantize value is quarter notes, the 2nd and 4th beats of the measure will be delayed. When a triplet value is specified, the last note of each triplet is affected by the Swing parameter.

When the quarter-note swing is applied to the original data:



Here, edit the Swing settings for each track by specifying the Swing Vel (Swing Velocity), Swing Gate, and Swing Rate. When the Quantize value is set to “off,” all the Swing parameters are not available.

**Swing Vel (Swing Velocity)**

Adjusts the velocity of the corresponding notes to accentuate the swing rhythmic feel. Settings below 100% reduce the velocities of notes on even-numbered beats (backbeats), and settings above 100% increase the velocities proportionately. If the result is 0 or less, the value is set to 1. If the result is higher than 127, the value is set to 127.

**Settings:** 0% – 100% – 200%

**Swing Gate (Swing Gate Time)**

Adjusts the gate time of the corresponding notes to accentuate the swing rhythmic feel. Settings below 100% will shorten the gate times of notes on even-numbered beats (backbeats), whereas settings above 100% will lengthen them. If an adjusted gate time value is less than 1, the value is rounded off to 1.

**Settings:** 0% – 100% – 200%

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode
- Reference

**Swing Rate**

Delays notes on even-numbered beats (backbeats) to produce a swing feel. Settings above 50% will delay notes to produce a more pronounced swing feel.

**Settings:**

Quantize Value	Settings
When the Quantize Value is set to off	0 – 0
When the Quantize Value is set to 32nd note	0 – 30
When the Quantize Value is set to 16th note triplet	0 – 40
When the Quantize Value is set to 16th note	0 – 60
When the Quantize Value is set to 8th note triplet	0 – 80
When the Quantize Value is set to 8th note	0 – 120
When the Quantize Value is set to 1/4 note triplet	0 – 160
When the Quantize Value is set to 1/4 note	0 – 240

**4 Note Shift\***

Raises or lowers the pitch of all notes in the selected track in semitones.

**Settings:** -99 – +0 – +99

**5 Clock Shift**

Shifts the timing of all notes in the selected track forward or backward in clock increments.

**Settings:** -120 – +0 – +120

**6 Gate Time Rate**

Raises or lowers the gate time of all notes in the selected track. If an adjusted gate time value is less than 1, the value is rounded off to 1.

**Settings:** 0% – 100% – 200%

**7 Velocity**

Raises or lowers the velocity of all notes in the selected track. If the result is 0 or less, the value is set to 1. If the result is higher than 127, the value is set to 127.

**Velocity Rate**

Alters the velocity of notes by the specified percentage.

**Settings:** 0% – 100% – 200%

**Velocity Offset**

Increases or decreases the velocity of notes by the specified offset value.

**Settings:** -99 – +0 – +99

**8 [SF6] INFO (Information)**

You can view the amount of free and used sequencer memory. The sequencer memory covers all Songs and Patterns recorded in the respective modes. When the used memory amount reaches the maximum capacity, no further Songs or Patterns can be stored. If this occurs, use the Clear Song Job (page 165) or Clear Pattern Job (page 187) to delete any unnecessary Songs or Patterns. You can go back to the previous display by pressing the [SF6] button or the [EXIT] button.



**Output Channels and Loop settings for each track—[F3] Track**

This display lets you set the Output Channel and set the Loop Playback related parameters for each track.

**Track Channel Settings—[SF1] Out (Output Channel)**

This display lets you set the MIDI Transmit Channel for each track.



**1 Voice (Indication only)**

Indicates the Voice name of the Mixing Part corresponding to each track.

**NOTE** In the Part 1 – 16 display (page 190) of the Mixing mode, you can change the Voice of the Mixing Part corresponding to the track.

**2 TxCh (Transmit Channel)**

Determines the MIDI transmit channel of the sequence data for each track. Tracks set to “off” will not sound. In the Song mode, the MIDI data created by playing the keyboard/knobs/wheels is sent to the tone generator block or the external MIDI devices via the MIDI output channel of the currently selected track.

**Settings:** 1 – 16, off

**3 Int (Internal Switch)**

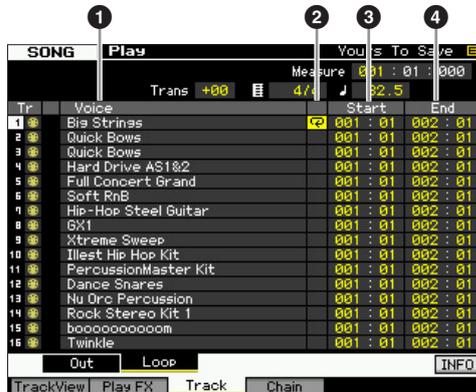
Determines whether musical performance data of each track is sent to the internal tone generator block or not. When set to “off,” the performance data will not be sent to the internal tone generator block.

**4 Ext (External Switch)**

Determines whether performance data of each track is sent to the external MIDI device or not. When set to “off,” the performance data will not be sent to the external MIDI device.

## Loop Playback Settings—[SF2] Loop

These allow you to set specific tracks for Loop Playback and determine what range of measures will be used for the Loop.



### 1 Voice (Indication only)

Indicates the Voice name of the Mixing Part corresponding to each track.

**NOTE** In the Part 1 – 16 display (page 190) of the Mixing mode, you can change the Voice of the Mixing Part corresponding to the track.

### 2 Loop

Determines whether or not the Loop Playback is active for each track. The track of which the Loop is turned on plays from Start (3) to End (4) repeatedly.

**Settings:** Blank (Loop off),  (Loop on)

### 3 Start (Start Point)

### 4 End (End Point)

Determines the range of the looped playback. The track of which the Loop is turned on plays from the Start Point to the End Point repeatedly.

**Settings:** Measure : Beat

## Song Chain Playback—[F4] Chain (Song Chain)

Song Chain Playback allows you to put together a play list of preset Songs, in any desired order, and have them automatically play back in sequence. From this display, you can program the order of the Song playback.



### 1 Chain Number (Indication only)

Indicates the order of the Song playback. Numbers 1 – 100 are provided and you can view these numbers by scrolling the display. The Song Chain will be played back in order from the Song assigned to 001.

### 2 Song number

### 3 Song name (Indication only)

Determines the Song number to be played back in the chain. The Song name is shown when you specify the Song number. If an empty Song is assigned to a certain Chain number, that number will be skipped after a one-measure count. In addition to Song numbers, “skip,” “end,” and “stop” commands can be assigned to the Song Chain numbers.

**Settings:** skip, end, stop, 01 – 64

#### skip

Skips (ignores) the selected chain number and continues playback from the next chain number.

#### end

Indicates the end mark of the Song Chain data.

#### stop

Stops Song Chain playback at that chain number. You can restart the song chain playback from the next chain number by pressing the [▶] (Play) button.

## Programming the Song Chain

Follow the instructions below to program the Song Chain. Keep in mind that the Song Chain program will be stored automatically; it is not necessary to execute the Store operation.

### 1 From the Track View display, press the [F4] button to call up the Song Chain display.

### 2 Program the desired order of the Songs.

Move the cursor to “001” by using the cursor buttons and select the desired Song by using the Data Dial, or the [INC/YES] and [DEC/NO] buttons. In the same manner, assign other Songs to locations 002, 003, 004, and so on.

### 3 Use “skip” if you want to delete the Song already assigned to the Chain number.

Move the cursor to the Song number to be deleted, then assign the “skip” command to that location by using the data dial, or the [INC/YES] and [DEC/NO] buttons. The assigned Chain number will be ignored during playback.

### 4 Assign “end” to the Chain number at which you wish to stop the Song Chain playback.

When playback reaches a Chain number to which the “end” command has been assigned, playback will stop. If you want to stop playback at a certain Chain number and restart from the next Chain number, assign the “stop” command to that Chain number.

**NOTE** The Song Chain will be stored as part of system data.

**NOTE** For details about Song Chain playback, see page 138.

# Song Recording

In the Song Record mode, you can use the sequencer to record your keyboard performance, track by track, to a selected Song. Press the [●] (Record) button from the Song Play mode to enter the Song Record mode.

**NOTE** Recording the audio data for a Song can be executed in the Sampling Record mode (page 203).

## Realtime Recording

This method lets you record the performance data as it is played, allowing you to capture all the nuances of an actual keyboard performance. Recording can be carried out while monitoring playback of other already-recorded tracks. You can also transmit sequence data from an external MIDI instrument to the MOTIF XF and simultaneously record up to 16 tracks (page 148).

The Realtime recording consists of three methods: Replace, Overdub, and Punch.

## Song Recording procedure

Here in outline form is the process of recording a Song.

### 1 Press the [SONG] button to enter the Song Play mode, then select a Song to be recorded (page 136).

Select an empty Song if you wish to create a new Song from scratch. If an empty Song is not found, delete any unnecessary Song(s) by using the Clear Song Job (page 165).

### 2 Press the [●] (Record) button to call up the Record Setup display (page 145).

Prepare for recording by setting the time signature, tempo, track to be recorded, Voice, and recording method. If you wish to record using an Arpeggio, set the necessary parameters from the Arpeggio display (page 147).

### 3 Record your keyboard performance.

For details, see page 147.

### 4 Edit the recorded Song using the Song Job (page 153) and Song Edit (page 150).

### 5 Press the [STORE] button to store the recorded Song to internal User Memory.

#### NOTICE

The recorded Song will be lost when selecting a different Song, calling up a different mode, or turning the power off. Make sure to store the Song data to internal memory by pressing the [STORE] button before selecting a different Song, calling up a different mode, or turning the power off.

### 6 Save the created Song data to a USB storage device or to a connected computer as desired (page 241).

## Song Store—[STORE]

This section covers how to store the Songs you have recorded and edited. By executing the Store operation, the Song data you have created will be maintained even if the power has been turned off. Pressing the [STORE] button calls up the Song Store window.

The following data will be stored by the Song Store operation.

#### Sequence data

MIDI data generated and recorded by your keyboard performance including the controller operations.

#### Tone Generator data

Mixing settings (Common Edit parameters and Part Edit parameters)

**NOTE** The Mixing Voices can be edited in the Mixing Voice Store window (page 199).

To use Song Store:

### 1 Call up the Song Store window.

Pressing the [STORE] button calls up the Song Store window.



### 2 Select a destination Song number.

The name of the selected Song number is shown.

#### NOTICE

This operation overwrites any data already existing in the destination Song.

### 3 Press the [ENTER] button. (The display prompts you for confirmation.)

Press the [DEC/NO] button to cancel the Store operation. Song Store is canceled, and operation returns to the previous display.

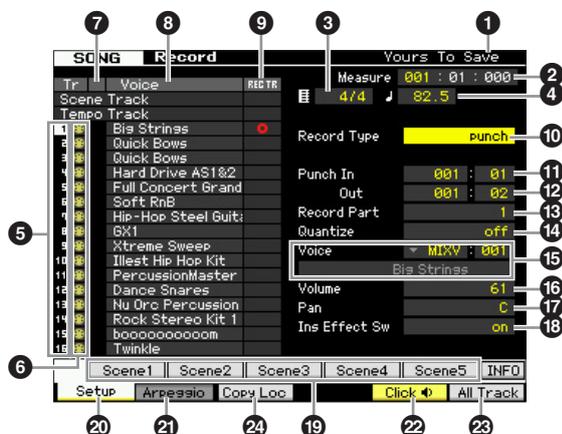
### 4 Press the [INC/YES] button to execute the Store operation.

After the Song has been stored, a “Completed” message appears and operation returns to the Song Play display.

**NOTE** If there is not enough memory space for the Song/Pattern, an alert message appears, and you will not be able to store any additional Songs/Patterns. If this happens, delete unnecessary Patterns/Songs by using the Song/Pattern Job, then try the Store operation again.

## Preparing the Song Recording— [F1] Setup

From this display you can set up various parameters for recording a Song.

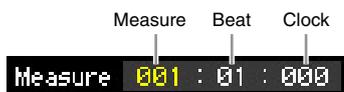


### 1 Song name (Indication only)

Indicates the name of the currently selected Song. The Song can be selected in the Song Play display (page 136).

### 2 Meas (Measure)

Determines the location at which playback starts. This also indicates the current location of the recording.



**Settings:**

Measure: 001 – 999  
Beat, Clock: Indication only

### 3 Time signature (Meter)

Determines the meter (time signature) of the Song.

**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

### 4 Tempo

Sets the tempo for recording in real time.

**Settings:** 5.0 – 300.0

**NOTE** The tempo value set here will be the tempo of the Song after recording.

**NOTE** If you are using this instrument with an external sequencer, a computer, or other MIDI device, and you want to have the Song recording tempo controlled by the external device(s), set the MIDI sync (5) parameter in the MIDI display (page 228) of the Utility mode to "MIDI." In that case, the Tempo parameter here indicates "MIDI" and cannot be changed.

### 5 Track number (Indication only)

Indicates the track number.

### 6 Track type (Indication only)

Indicates the track type: MIDI track or Audio track. For Mixing Parts that correspond to Audio tracks, a Sample Voice is assigned. For Mixing Parts that correspond to MIDI tracks, a Voice other than a Sample Voice is assigned. For Mixing Parts that correspond to empty tracks, no Voice is assigned.

**Settings:** (MIDI Track), (Audio track), blank (no Voice is assigned)

### 7 Mute/Solo (Indication only)

Indicates the Mute/Solo status for each track. For detailed instructions on setting Mute/Solo, see page 137.

Blank: Neither Mute nor Solo are assigned to this track.

: Indicates muted track.

: Indicates soloed track.

### 8 Voice name (Indication only)

Indicates the Voice name of the Mixing part corresponding to each track.

### 9 REC TR (Record Track)

Determines the track to be recorded. Move the cursor to the desired track or press any of the Number buttons [1] – [16] with the TRACK lamp turned on so that the red circle is shown in the corresponding column of the REC TR. To set all tracks to the Record Track, press the [F6] button (red circles are shown in all columns of REC TR).

**Settings:** Scene Track, Tempo Track, 1 – 16, All Track

**Scene Track**

Records track mute on/off events and Song Scene changing timing events.

**Tempo Track**

Records tempo change information during playback.

**1 – 16**

Records your actual musical performance. Your keyboard performance will be recorded to the track selected here.

**All Track**

Simultaneous recording to all 16 sequence tracks. Multi-channel data from an external MIDI device can be recorded at once.

### 10 Record Type

Determines a Recording method.

**Settings:** replace, overdub, punch

**replace**

You can use this method when you want to overwrite an already recorded track with new data in real time. The original data will be erased.

**overdub**

You can use this method when you want to add more data to a track that already contains data. Previously recorded data will be maintained.

**punch**

You can use this method when you want to overwrite data to a specified range of a track that already contains data. You can overwrite the already recorded data from the starting point to the ending point (measure/beat) that was specified before recording.

**NOTE** When the Record Track (5) is set to "Tempo Track" or "Scene Track," "overdub" cannot be selected here.



**11 Punch In****12 Punch Out**

When punch (Punch In/Out) is selected as the Record Type explained above, the recording start position (Punch In position) and finish position (Punch Out position) are specified here.

**Settings:** 001 : 01 – 999 : 16

**13 Record Part (Indication only)**

Indicates the Mixing Part corresponding to the Record Track.

**Settings:** 01 – 16

**14 Quantize (Record Quantize)**

This convenient feature lets you automatically quantize the notes in real time, as you record. Quantize aligns the timing of note events to the nearest beat. This parameter determines whether real-time Quantize is on or not, and the resolution to which the notes will be aligned. The number shown at right of each value indicates the length assumes that the quarter-note resolution is 480.

**Settings:** off, 60 (32nd note), 80 (16th note triplet), 120 (16th note), 160 (8th note triplet), 240 (8th note), 320 (1/4 note triplet), 480 (1/4 note)

**15 Voice**

Determines the Voice for the recording track by specifying the Voice Bank and Voice number. The setting here is applied to the Voice setting for the Record Part (13). The name of the selected Voice is indicated in the next line.

**Settings:****Voice Bank**

PRE 1 – 8, USR 1 – 4, GM, PDR (Preset Drum Voice), UDR (User Drum Voice), GMDR (GM Drum Voice), SMPL (Sample Voice)\*, MIXV (Mixing Voice)\*\*

\* The SMPL (Sample Voice) can be created by recording audio signal to a track in the Sampling mode. Here, you can select only a Sample Voice which is currently stored to the currently selected Song. For details, see page 201.

\*\* The MIXV (Mixing Voice) is edited and stored in the Mixing mode. Here, you can select only a Mixing Voice which is currently stored to the currently selected Song. For details, see page 189.

**Voice number:** 001 – 128

**NOTE** You can call up the list and select the desired one by pressing the [SF6] LIST button. For details, see page 37.

**16 Volume**

Determines the volume for the recording track. The setting here is applied to the Volume setting for the Record Part (13).

**Settings:** 0 – 127

**17 Pan**

Determines the stereo pan position of the sound. The setting here is applied to the Pan setting for the Record Part (13).

**Settings:** L63 – C – R63

**18 Ins Effect Sw (Insertion Effect Switch)**

Determines whether the Insertion Effect assigned to the Voice is used or not. The setting here is applied to the Insertion Effect Switch setting for the Record Part (13).

**Settings:** off, on

**NOTE** The MOTIF XF features eight Insertion Effects, letting you set this parameter to on for up to eight Parts. If eight Parts are already turned on, the parameter cannot be turned on for additional Parts. In this case, another Part must be turned off. To do this, set the Insertion Effect Switch parameter for another Part to “off” in the Part 1 – 16 display (page 190) of the Mixing mode.

**19 [SF1] Scene1 – [SF5] Scene5**

Pressing these buttons while recording changes the Song Scene and Arpeggio settings simultaneously. For details, see page 139.

**20 [F1] Setup**

Pressing this button returns from the previous display to the Record Setup display.

**21 [F2] Arpeggio**

Calls up the Record Arpeggio display. From this display you can set various Arpeggio-related parameters for the Song recording.

**22 [F5] Click**

Switches the metronome on/off. Pressing the [F5] button toggles the Click function on and off.

**NOTE** From the Click display (page 231) of the SEQ SETUP, you can make various settings for the metronome click, such as the note resolution, volume, and lead-in count for recording.

**23 [F6] All Track**

Pressing this button sets all 16 tracks to the Record Track. For details, see page 145.

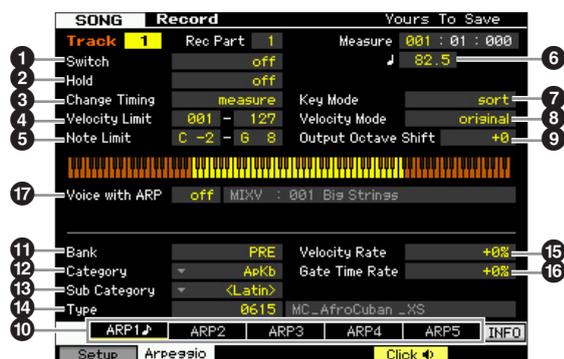
**24 [F3] Copy Loc (Copy Location)**

This is available only when the Record Type is set to “punch.”

Pressing this button will copy the measure number at Location 1 (page 140) to the Punch In position and copy the measure number at Location 2 (page 140) to Punch Out.

## Arpeggio Settings—[F2] Arpeggio

From this display you can set various Arpeggio-related parameters for the Song recording.



Parameters ① – ⑯ are same as the ones in the Arpeggio Main display (page 58) in the Voice Common Edit mode.

### ⑰ Voice with ARP (Voice with Arpeggio)

Each Arpeggio type is assigned a specific Voice best suited to the type. When an Arpeggio type has been assigned to a recorded track, this parameter determines whether or not the Voice assigned to the Arpeggio type will also be used for the recorded track. When set to “on,” the appropriate Voice is assigned to the recorded track in place of the currently assigned Voice. When set to “off,” the appropriate Voice is not assigned to the recorded track. The currently assigned Voice is maintained. The name of the Voice registered to the Arpeggio Type is shown at the right side.

**Settings:** off (not copied), on (copied)

**NOTE** A User Voice may be registered to a certain Arpeggio Type via the Voice with ARP function. With the factory settings, each of the combinations of an Arpeggio Type and its companion User Voice is designed to be the most suitable match and produce the appropriate sound/phrase. However, when revising the sound of the User Voice by editing the parameters or storing a different Voice to the corresponding User Voice number, this combination may become improper or produce an unexpected sound. If such a situation occurs, select the most appropriate Voice for the current Arpeggio Type on the [F1] Voice display.

### Calling up the Arpeggio Type by using the [SF1] Scene 1 – [SF5] Scene 5 buttons

The Arpeggio type set in the Arpeggio display of the Song Record can be called up together with the Song Scene via the [SF1] Scene 1 – [SF5] Scene 5 buttons in the Setup display (page 145) and the Track View display (page 139). The 8th note icon at right of Scene 1 – 5 in the tab indicates that the Song Scene is registered to the corresponding button. If the Arpeggio Type is set to “off” in the Arpeggio display of the Song Record, pressing the corresponding Sub Function button in the Setup display/Track View display will not change the Arpeggio type even if the 8th note icon is shown.

## Realtime Recording Procedure

This section explains how to record your performance using the Realtime Recording features. Please keep in mind that the procedure differs depending on the Record Type and Record Track set from the Record Setup display.

### Replace Recording

[SONG] → [●] (Record) → Record track selection → Type=replace → [▶] (Play)

By using this method, any previous data in the recorded track will be erased (overwritten) and replaced by the new data. The first recording is lost, and the new one takes its place. This is handy when you need to re-record the same Part several times.

**NOTE** If you accidentally overwrite important data when using Replace Recording, cancel the recording by using the Undo/Redo Job (page 154).

### Recording Procedure for individual tracks 1 – 16

This section covers how to record your keyboard performance data to tracks 1 – 16 with Replace Recording.

#### 1 Press the [SONG] button to call up the Song Play display (page 136), then select a Song to be recorded.

Select an empty Song if you wish to create a new Song from scratch.

#### 2 Press the [●] (Record) button to call up the Record Setup display (page 145). From this display, set the Record track to one of 1 – 16 then set the Recording type to “replace.”

If necessary, set various parameters such as tempo, time signature, measure, quantize, and voice.

#### 3 Press the [F5] Click button to turn the Click on when you wish to use the metronome.

In the Click display (page 231) called up via the [SEQ SETUP] button, you can make various settings for the metronome click, such as the note resolution, volume, and lead-in count for recording.

#### 4 Press the [▶] (Play) button so that its indicator flashes, then start recording after the count-in.

Play the keyboard and/or controller to record.

#### 5 Press the [■] (Stop) button to stop recording and return to the Song Play display.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

## Recording Procedure for multiple tracks ("All Track" setting)

The sequence data transmitted from an external MIDI instrument can be recorded simultaneously up to 16 tracks.

- 1 Connect an external MIDI sequencer or a computer to the MOTIF XF then switch on the power to the MOTIF XF.**
- 2 Set the MIDI related parameters in the Utility mode.**  
Press the [UTILITY] button, [F5] Control button, then [SF2] MIDI button to call up the MIDI Control display (page 228). From this display, set MIDI sync to "MIDI," then set the Sequencer Control to "in" or "in/out."
- 3 Press the [SEQ SETUP] button to call up the [F1] Click display (page 231), then set the Recording Count parameter to "off."**
- 4 Press the [SONG] button to call up the Song Play display (page 136), then select a Song to be recorded.**  
Select an empty Song if you wish to create a new Song from scratch.
- 5 Press the [●] (Record) button to call up the Record Setup display (page 145). From this display, set the Record track to "All Track" then set the Recording type to "replace." Set the Time Signature to the same one as the original Song to be recorded, then set Quantize to "off."**
- 6 Start playback of the external MIDI sequencer or computer application software.**  
Recording begins automatically as soon as playback starts.
- 7 Stop playback of the external MIDI sequencer or computer application software.**  
Recording stops automatically and operation returns to the Song Play display.

## Recording Procedure for the Tempo Track

Here's how to record the Tempo data to the Tempo track in real time.

- 1 Press the [SONG] button to call up the Song Play display (page 136), then select a Song to be recorded.**

- 2 Press the [●] (Record) button to call up the Record Setup display (page 145). From this display, set the Record track to "Tempo Track" then set the Recording type to "replace."**

If necessary, set various parameters such as tempo, time signature, measure, quantize.

- 3 Press the [F5] Click button to turn the Click on when you wish to use the metronome.**

In the Click display (page 231) called up via the [SEQ SETUP] button, you can make various settings for the metronome click, such as the note resolution, volume, and lead-in count for recording.

- 4 Press the [▶] (Play) button so that its indicator flashes, then start recording after the count-in.**

Enter the tempo at the desired timing during playback by using the [DEC/NO]/[INC/YES] buttons and the Data Dial.

- 5 Press the [■] (Stop) button to stop recording and return to the Song Play display.**

**NOTE** You can edit the tempo from the Song Edit display for the Tempo track (page 150).

## Recording Procedure for the Scene Track

Here's how to record the Track Mute on/off events and Scene changing timing events to the Scene track in real time.

- 1 Press the [SONG] button to call up the Song Play display (page 136), then select a Song to be recorded.**
- 2 Press the [●] (Record) button to call up the Record Setup display (page 145). From this display, set the Record track to "Scene Track" then set the Recording type to "replace."**  
If necessary, set various parameters such as tempo, time signature, measure, quantize.
- 3 Press the [F5] Click button to turn the Click on when you wish to use the metronome.**  
In the Click display (page 231) called up via the [SEQ SETUP] button, you can make various settings for the metronome click, such as the note resolution, volume, and lead-in count for recording.
- 4 Press the [MUTE] button (the lamp lights).**
- 5 Press the [▶] (Play) button so that its indicator flashes, then start recording after the count-in.**  
Press one of the [1] – [16] buttons or the [F1] Scene 1 – [F5] Scene 5 buttons at the desired timing.

## 6 Press the [■] (Stop) button to stop recording and return to the Song Play display.

**NOTE** You can edit the Track on/off and the Scene change events from the Song Edit display for the Tempo track (page 150).

### Rehearsal before recording

To temporarily disengage the record mode and enter the Rehearsal mode, simply press the [●] (Record) button during realtime recording. The [●] (Record) indicator flashes and playback will continue uninterrupted but no data will be recorded. This convenient Rehearsal mode feature lets you easily and temporarily disable recording in order to practice a Part or try out various ideas (while listening to the other tracks) without actually recording. To return to the record mode press the [●] (Record) button again so that the [●] (Record) indicator lights continuously.

### Overdub Recording

[SONG] → [●] (Record) → Record track selection  
→ Type=overdub → [▶] (Play)

This method allows material to be added to existing material on a track. The first recording is kept, and the new one is added. This makes it easy to create Parts by recording them a little at a time.

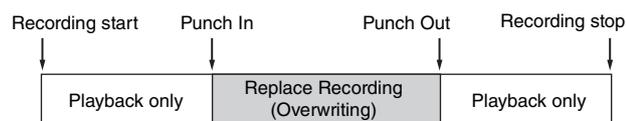
The Overdub Recording procedure is almost same as the Replace except that the Record type is set to “overdub.”

**NOTE** When the Record Track (●) is set to “Tempo Track” or “Scene Track,” “overdub” cannot be selected here.

### Re-recording a specific section of an already-recorded Song (Punch In/Out)

[SONG] → [●] (Record) → Record track selection  
→ Type=punch → [▶] (Play)

Realtime recording can also be done between specified start (punch-in) and end (punch-out) points. This allows you to record a specified section of a previously-recorded track without having to re-record the entire track. Start recording with this method and playback begins. Actual recording will begin automatically when the punch-in point is reached and recording will be disengaged when the punch-out point is reached.



## Punch In/Out setup

- 1 Press the [●] (Record) button to call up the Record Setup display (page 145).
- 2 Set the Recording type to “punch.”
- 3 Move the cursor to the punch in and punch out, then set their points respectively by entering measure and beat.

Except for setting the punch in and punch out, perform the same procedure as the Replace Recording procedure.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

# Editing MIDI Events (Song Edit)

The Song Edit mode lets you edit the already recorded Songs or insert the new data to the Songs. It can be used to correct mistakes as well as add dynamics or effects such as vibrato to refine and finish the Song. Press the [EDIT] button from the Song Play mode to go to the Song Edit mode.

**NOTE** The Song Edit mode gives you comprehensive, detailed controls for editing the MIDI events of individual Song tracks. MIDI events are messages (such as note on/off, note number, program change number, etc.) that make up the data of a recorded track.

## Event List display and Insert Event window

The Song Edit mode consists of the Event List display and the Insert Event window. The Event List display lets you correct or delete already inserted MIDI events and the Insert Event window lets you insert new events to the Song. Press the [EDIT] button from the Song Play mode to go to the Event List display. Press the [F5] button to call up the Insert Event window.

### Event List display



### Insert Event window



## Event List display

The Event List display lets you correct or delete existing events.

## Insert Event window

The Insert Event window lets you insert new events to the Song.

Pressing the [F5] button on the Event List display calls up the Insert Event window. To return back to the Event List display, press the [EXIT] button.

## Editing the recorded data

This section shows how to correct or delete previously recorded events.

**1 Press the [EDIT] button from the Song Play display to call up the Event List display (page 151).**

**2 Select the track to be edited.**

Pressing the [F4] Track Sel button switches the Recording track among Tracks 1 – 16, the Scene track and the Tempo track. When “1 – 16 tracks” is selected, you can select the track to be edited by pressing any of the Number buttons [1] – [16].

**3 Move the cursor to the event or parameter to be edited.**

Use the [^]/[V] (Cursor Up/Down) button to move the cursor to the desired timing. Press the [◀] (Rewind)/[▶] (Fast Forward) button to move the cursor by single measures. Use the [<]/[>] (Cursor Left/Right) button to move the cursor to the parameter to be edited.

**NOTE** For details about each event and parameter, see page 30.

**NOTE** The Event List window may have an overwhelming number of events, and it may be difficult to find a specific desired event. To help narrow down your search, use the View Filter function. This conveniently lets you specify which classes of events will be displayed and which will not, making it much easier and faster to find desired events. For information about the View Filter display, see page 152.

**4 Change the parameter settings or location of the event.**

Edit the value by using the [INC/YES], [DEC/NO] buttons and the data dial. The edited event will flash on the display.

Change the event location by editing the MEAS (measure), BEAT, and CLOCK. Press the [F6] button to delete the event at the cursor location.

**NOTE** When “NUM” is indicated in the tab corresponding to the [SF6] button, you can use the [F1] – [F6] buttons and the [SF1] – [SF5] buttons as numeric key pads by pressing the [SF6] NUM button.

**NOTE** The note and velocity can be edited also by pressing the desired note on the keyboard, even though the [KBD] icon is not shown.

- After you've finished editing a parameter, press the [ENTER] button to confirm and enter the edit (the event will stop flashing).

If the cursor is moved to a new event while the current event is still flashing, editing of the current event is cancelled.

- Press [EXIT] to go back to the Song Play mode.

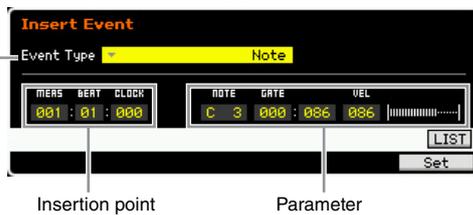
## Inserting the New Event

This section shows how to insert new events to the current Song.

- From the Event List display, press the [F5] Insert button to call up the Insert Event window.
- Specify the event type to be inserted, the insertion point (measure, beat, and clock), and parameter value of the event.

For details about each event and parameter, see page 30.

Event type



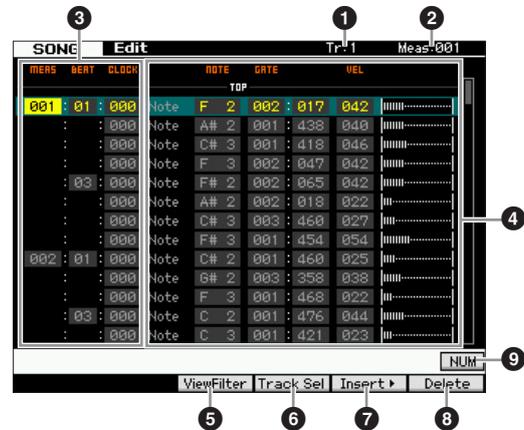
- Press the [F6] Set button to insert the specified event at the specified location.

The Insert Event window remains open, allowing you to continue inserting new events. Press the [ENTER] button to actually insert the event and close the Insert Event window.

- Press the [EXIT] button to go back to the Event List display.

## Event List display

In the Event List display, MIDI events (including mainly values such as note number, velocity, and control change value) are listed and can be edited.



**NOTE** Depending on the selected parameter, the NUM icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can use the [SF1] – [SF5] and [F1] – [F5] buttons as number buttons by pressing the [SF6] NUM button. For details, see page 36.

### 1 TR (Track) (Indication only)

Indicates the selected track. You can change the track to be edited by using the [F4] Track Sel button and the Number [1] – [16] buttons.

**Settings:** Track 01 – 16, Scene, Tempo

### 2 Measure (Indication only)

Indicates the selected measure. You can change the measure by using the [◀] (Rewind) and the [▶] (Forward) buttons.

**Settings:**  
Measure: 001 – 999

### 3 MEAS (Measure), BEAT, CLOCK

Indicates the location of the corresponding event. Changing any of these values changes the location of the event accordingly.

**Settings:**  
Measure: 001 – 999  
Beat: 1 – 16 (depends on meter)  
Clock: 000 – 479 (depends on meter)

### 4 Event and Parameters

Indicates the type of each event. For details about each event and parameter, see page 30.

**Settings:**  
When TR is set to 01 – 16:  
Note  
PB (Pitch Bend)  
PC (Program Change)  
CC (Control Change)  
CAT (Channel Aftertouch)  
PAT (Polyphonic Aftertouch)  
RPN  
NRPN  
EXC (System Exclusive)  
CMM (Channel Mode Messages)

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

When TR is set to “scn” (Scene):

- Scene Memory
- Track Mute

When TR is set to “tmp” (Tempo):

- Tempo Change

**5 [F3] ViewFilter**

Calls up the View Filter setting display (below).

**6 [F4] Track Sel (Track Select)**

You can switch between the display for tracks 1 – 16, the Scene track, and the Tempo track by pressing this button. When any one of tracks 1 – 16 is selected, you can select a different track number by pressing the appropriate Number button [1] – [16].

**7 [F5] Insert**

Calls up the Insert Event window (page 151).

**8 [F6] Delete**

Deletes the currently selected event. This button is not available when the cursor is located at the top or bottom of the Song data.

**9 [SF6] NUM**

This menu appears when the cursor is located on MEAS (measure), BEAT, CLOCK, GATE (gate time) or VEL (velocity). When the [SF6] NUM button is pressed in this status, each digit (1 – 9, 0) is assigned to the [SF1] – [SF5] and [F1] – [F5] buttons, allowing you to input a number directly by using these buttons. For details, see page 36.

## Changing the MIDI event view—[F3] View Filter

MIDI song data generally has a large amount of recorded events, and the Event List window may be overcrowded with them. Since it may be difficult to find a specific event, you can use the View Filter function to help narrow down your search. This conveniently lets you specify which classes of events will be displayed and which will not, making it much easier and faster to find desired events. From the Event List display, call up the View Filter display by pressing the [F3] View Filter button.



**1 Event types**

Only the event which the checkbox is marked will be shown on the Event List display.

**Settings:** Note, Pitch Bend, Program Change, Control Change\*, Channel After Touch, Poly After Touch, RPN, NRPN, System Exclusive, Channel Mode Message

\* You can specify the Control Number (0 – 119, all).

**2 [F5] Clear All**

Pressing this button removes the checkmarks of all events. If you wish to indicate specific events, it is a good idea to press the [F5] button to first remove the checkmarks of all events, then enter the checkmarks of your desired events.

**3 [F6] Set All**

Pressing this button enters the checkmarks for all events, letting you view all recorded events.

# Song Job

The Song Job mode contains a comprehensive set of editing tools and data transform functions you can use to change the sound of the Song. It also includes a variety of convenient operations, such as copying or erasing data. 30 Jobs are available.

Function	Description
<b>[F1] Undo/Redo</b>	Undo job cancels the changes made by the most recent operation, restoring the data to its previous state. Redo job cancel Undo and restores the changes.
<b>[F2] Note</b>	<b>Note data Jobs</b>
01: Quantize	Quantization is the process of adjusting the timing of note events by moving them closer to the nearest exact beat. You can use this feature, for example, to improve the timing of a performance recorded in real time.
02: Modify Velocity	This Job alters the velocity values of the specified range of notes, letting you selectively boost or cut the volume of those notes.
03: Modify Gate Time	This Job alters the gate times of the specified range of notes.
04: Crescendo	This Job lets you create a crescendo or decrescendo over the specified range of notes. (Crescendo is a gradual increase in volume, and decrescendo is a gradual decrease.)
05: Transpose	This Job changes the pitch of the notes in semitones.
06: Glide	This Job replaces all notes following the first note in the specified range with pitch bend data, producing smooth glides from note to note.
07: Create Roll	This Job creates a series of repeated notes (like a drum roll) in the specified range with the specified continuous changes in clock step and velocity. This is ideal for creating fast staccato rolls and special stuttering effects.
08: Sort Chord	This job sorts chord events (simultaneous note events) by order of pitch.
09: Separate Chord	This Job slightly separates notes in chords within the specified range, inserting a specified number of clocks between each note. Use this Job after the Chord Sort Job above, to create guitar-like upstroke or downstroke effects.
<b>[F3] Event</b>	<b>Event Jobs</b>
01: Shift Clock	This Job shifts all data events in the specified range forward or backward by the specified number of clocks.
02: Copy Event	This Job copies all data from a specified source range to a specified destination location.
03: Erase Event	This Job clears all specified events from the specified range, effectively producing a segment of silence.
04: Extract Event	This Job moves all instances of specified event data from a specified range of a track to the same range in a different track.
05: Create Continuous Data	This Job creates continuous pitch bend or control change data over the specified range.
06: Thin Out	This Job thins out the specified type of continuous data in the specified range—allowing you to free up memory space for other data or further recording.
07: Modify Control Data	This Job lets you change the values of specified data such as Pitch Bend and Control Change in the specified range.
08: Beat Stretch	This Job performs time-expansion or compression over the selected range.
<b>[F4] Measure</b>	<b>Measure Jobs</b>
01: Create Measure	This Job creates empty measures at the specified location in all tracks.
02: Delete Measure	This Job deletes the specified measures.
<b>[F5] Track</b>	<b>Track Jobs</b>
01: Copy Track	This Job copies all data of the selected type from a specified source track to a specified destination track.
02: Exchange Track	This Job exchanges or “swaps” the specified type of data between two specified tracks in the current Song.
03: Mix Track	This job mixes all data from two selected tracks.
04: Clear Track	This Job deletes all data of the selected type from the selected track.
05: Normalize Play Effect	This job rewrites the data in the selected track so that it incorporates the current Play FX/Groove/MIDI Delay settings.
06: Divide Drum Track	This Job separates the note events in a drum performance assigned to a specified track, and places the notes corresponding to different drum instruments in separate tracks (tracks 1 through 8).
07: Put Track to Arpeggio	This Job copies data in the specified measures of a track for creating Arpeggio data.
08: Copy Phrase	This Job copies the Phrase (created in the Pattern mode) to a specified track of the current Song.
<b>[F6] Song</b>	<b>Song Jobs</b>
01: Copy Song	This Job copies all data from a selected source Song to a selected destination Song.
02: Split Song to Pattern	This Job allows you to copy a Part of the current Song to a specific Pattern.
03: Clear Song	This job deletes all data from the selected Song or all Songs. It can also be used to delete all 64 Songs at the same time.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

## Song Job Procedure

- 1 Press the [JOB] button to enter the Song Job mode.
- 2 Select the desired Job menu by pressing one of the [F1] – [F6] buttons.
- 3 Move the cursor to the desired Job by using the data dial, cursor buttons, [INC/DEC] and [DEC/NO] buttons, then press the [ENTER] button to call up the Job display.
- 4 Move the cursor to the desired parameter, then set the value by using the data dial, [INC/YES] and [DEC/NO] buttons.
- 5 After setting, press the [ENTER] button to execute the Job.  
“Completed” will appear when the Job is done.
- 6 Press the [EXIT] button twice to go back to the Song Play display.

### NOTICE

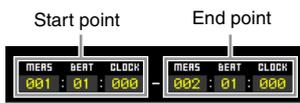
In some Jobs, the operation overwrites any data previously existing in the destination memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

**NOTE** If there is no data in the specified range, “No Data” will appear on the display and the Job cannot be executed. If you make a mistake or want to compare the sound of the data before and after executing a Job, press the [F1] button to use the Undo/Redo function.

### NOTICE

Even if a Job operation has been completed, selecting a different Song or turning the power off without storing will erase the Song data. Make sure to store the Song data to internal memory by pressing the [STORE] button before selecting a different Song or turning the power off.

**NOTE** In some Jobs, you need specify the range (start point and end point as illustrated below) to which the Job is applied. Keep in mind that the end point itself is not included in the range. The actual range to which the Job is applied is from the start point to the point that is one clock less than the end point. This rule applies to cases in which you specify only the Measure; however, the example illustration below shows specifying the Measure, Beat and Clock.



**NOTE** Some of the Jobs which enable you to copy the Sample Voice from the source to the destination execute the actual copy operation only when the Bank Select and Program Change events which specify the Sample Voice are recorded in the source Track.

## [F1] Undo/Redo

The Undo Job cancels the changes you made in your most recent recording session, editing session, or Job, restoring the data to its previous state. This allows you to recover from accidental data loss. Redo is available only after using Undo, and lets you restore the changes you made before undoing them.



- 1 Indicates the operation to be affected by Undo or Redo.
- 2 Indicates the Undo/Redo target. When the changes you made in your most recent operation cannot be a target of the Undo/Redo, “Impossible” is shown here.

### NOTICE

- Undo/Redo does not work with Mixing operations.
- Even if you have stored Song data, you can recall the data which was lost via the most recent operation by executing Undo. Make sure to execute the Undo/Redo operation before changing the song number or leaving the Song mode. This is because the Undo/Redo cannot be executed after changing the song number or leaving the Song mode.

## [F2] Note Jobs

### 01: Quantize

Quantization is the process of adjusting the timing of note events by moving them closer to the nearest exact beat. You can use this feature, for example, to improve the timing of a performance recorded in real time.



#### 1 Track and range

Determines the track (01 – 16, all) and range (Measure : Beat : Clock) to which the Quantize is applied.

## 2 Quantize (Resolution)

Determines the note timing to which the note data will be aligned. The number shown at right of each value indicates the length assumes that the quarter-note resolution is 480.

Settings:

	60	1/32 note
	80	1/16 note triplets
	120	1/16 note
	160	1/8 note triplets
	240	1/8 note
	320	1/4 note triplets
	480	1/4 note
	200	1/16 note and 1/16 note triplets
	400	1/8 note and 1/8 note triplets

**NOTE** You can call up the list and select the desired one by pressing the [SF6] LIST button. For details, see page 37.

## 3 Strength

Sets the “strength” by which note events are pulled toward the nearest quantize beats. A setting of 0% results in no change, whereas a setting of 100% moves note events exactly to the quantize beats. A setting of 50% results in the note events being pulled halfway between 0% and 100%.

Settings: 000% – 100%

## 4 Swing Rate

Delays notes on even-numbered beats (backbeats) to produce a swing feel. Judicious use of this setting lets you create swing rhythms and triplet feels, such as shuffle and bounce.

The functions and settings of this parameter differ depending on the Quantize resolution setting.

Settings: Depends on the Quantize (2) setting. Refer to the settings of the Swing parameter in the Play FX display (page 141).

If the Quantize value is 1/4 note, 8th note, 16th note, 32nd note:

For example, if the meter is 4/4 and the quantize value is quarter notes, the 2nd and 4th beats of the measure will be delayed. A setting of 100% is equivalent to twice the length of the specified Quantize value. A setting of 50% produces exact timing and therefore no swing feel. Settings above 51% delays the note timing to increase the amount of swing. A setting of 66% moves the notes to a triplet delay, with 75% being equivalent to a dotted-note delay.

If the Quantize value is 1/4 note triplet, 8th note triplet, 16th note triplet:

When a triplet quantize value is used, the last note of each triplet is delayed. A setting of 100% is equivalent to twice the length of the specified Quantize value. A setting of 66% produces exact timing and therefore no swing feel. Settings above 67% delays the note timing to increase the amount of swing. A setting of 75% moves the notes to a dotted-note delay, with 83% being equivalent to a sextuplet delay.

If the Quantize value is 8th note + 8th note triplet, 16th note + 16th note triplet:

Even-numbered beats will be delayed. A setting of 100% is equivalent to twice the length of a 8th note or 16th note. A setting of 50% produces exact timing and therefore no swing feel. Settings above 51% delays the note timing to increase the amount of swing, with 66% being equivalent to a triplet delay.

**NOTE** The Swing Rate is applied to notes which are located on even-numbered beats (backbeats) by setting the Strength

to 100%. If the Strength is set to less than 100%, the Swing Rate may delay notes not on even-numbered beats and produce an unexpected rhythm. To prevent this, you should set Strength to 100% when using the Swing Rate.

## 5 Gate Time

Determines the gate time (the length of time a note sounds) of the even-numbered backbeat notes to enhance the swing feel. When a triplet quantize value is used, the gate time of the last note of each triplet is adjusted. When the quantize value is 8th note + 8th note triplet or 16th note + 16th note triplet, the gate time of the even-numbered 8th note or 16th note beats will be adjusted.

Settings below 100% will shorten the gate times of notes on even-numbered beats (backbeats), whereas settings above 100% will lengthen them. If an adjusted gate time value is less than 1, the value is rounded off to 1.

Settings: 000% – 200%

## 02: Modify Velocity

This Job alters the velocity values of the specified range of notes, letting you selectively boost or cut the volume of those notes. Velocity changes are calculated as follows:

Adjusted velocity = (original velocity x Rate) + Offset

If the result is 0 or less, the value is set to 1. If the result is higher than 127, the value is set to 127.



### 1 Track and range

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Set All

Sets the velocities of all target notes to the same fixed value (1 to 127). When set to “off” the Set All parameter has no effect. When set to a value other than “off,” the Rate and Offset parameters below are unavailable and cannot be set.

Settings: off, 001 – 127

### 3 Rate

Determines the percentage by which the target notes will be shifted from their original velocities. Settings below 100% reduce the velocities, and settings above 100% increase the velocities proportionately. A setting of 100 produces no change. When the Set All parameter (above) is set to other than “off,” this parameter cannot be set.

Settings: 000% – 200%

#### 4 Offset

Determines the offset value by which the target notes will be shifted from their original velocities. Settings below 0 reduce the velocities, and settings above 0 increase the velocities. A setting of 0 produces no change. When the Set All parameter (above) is set to other than “off,” this parameter cannot be set.

**Settings:** -127 – +127

### 03: Modify Gate Time

This Job alters the gate times of the specified range of notes. Gate time changes are calculated as follows:

Adjusted gate time = (original gate time x Rate) + Offset.

If the result is 0 or less, the value is rounded off to 1.



#### 1 Track and range

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

#### 2 Set All

Sets the gate times of all target notes to the same fixed value. When set to “off” the Set All parameter has no effect. When set to a value other than “off,” the Rate and Offset parameters below are unavailable and cannot be set.

**Settings:** off, 0001 – 9999

#### 3 Rate

Determines the percentage by which the gate time of the target notes will be changed. Settings below 100% shorten the notes, and settings above 100% lengthen the notes proportionately. A setting of 100 produces no change. When the Set All parameter (above) is set to other than “off,” this parameter cannot be set.

**Settings:** 000% – 200%

#### 4 Offset

Adds a fixed value to the Rate-adjusted gate time values. Settings below 0 shorten the gate time, and settings above 0 lengthen the gate time. A setting of 0 produces no change. When the Set All parameter (above) is set to other than “off,” this parameter cannot be set.

**Settings:** -9999 – +9999

### 04: Crescendo

This Job lets you create a crescendo or decrescendo over the specified range of notes. Crescendo is a gradual increase in volume, and decrescendo is a gradual decrease.



#### 1 Track and range

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

#### 2 Velocity Range

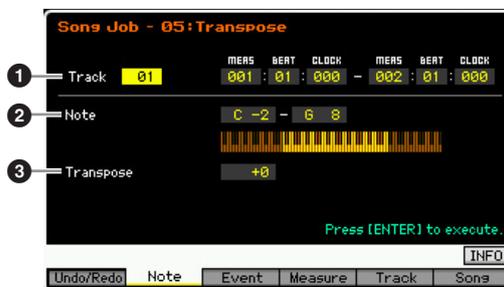
Determines the intensity of the crescendo or decrescendo. The velocity values of the notes in the specified range are gradually increased or decreased starting at the first note in the range. The velocity of the last note in the range becomes the original velocity of the note plus the Velocity Range value. If the resultant velocity is outside the 1 – 127 range, it is set to 1 or 127 accordingly. Settings greater than 0 produce a crescendo, and settings less than 0 produce a decrescendo. A setting of 0 produces no effect.

**Settings:** -127 – +127

**NOTE** Executing this Job changes velocities of the note on events in the specified range to produce the crescendo/decrescendo. Note that this Job cannot apply the crescendo/decrescendo to long sustained note having a long gate time. If you wish to do this, use the “Create Continuous Data” Job with the Event Type set to “Control Change 11.”

### 05: Transpose

Changes the pitch of the notes in semitones.



#### 1 Track and range

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

**2 Note**

Determines the range of notes for which Transpose is applied. You can also set the Note directly from the Keyboard, by holding down the [SF6] button and pressing the desired key.

**Settings:** C -2 – G8

**3 Transpose**

Sets the transpose value. A setting of +12 transposes up one octave, while a setting of -12 transposes down an octave. A setting of 0 produces no change.

**Settings:** -127 – +127

**06: Glide**

This Job replaces all notes following the first note in the specified range with pitch bend data, producing smooth glides from note to note.

**1 Track and range**

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

**2 Glide Time**

Determines the time of the glide. Higher values produce a longer and smooth glide between notes.

**Settings:** 000 – 100

**3 PB (Pitch Bend) Range**

The Pitch Bend Range value indicates the maximum range of pitch controlled via the Pitch Bend event in semitones. This parameter determines the Pitch Bend range for the Voice assigned to the Mixing Part corresponding to the selected track. Executing the Job replaces the note events with the Pitch Bend events by following the Pitch Bend range specified here.

**Settings:** 01 – 24

**NOTE** If the interval between adjoining notes is greater than the Pitch Bend range set here in the specified range, the corresponding notes will not be converted by executing this Job. If such a situation occurs, set the PB Range (3) to the value more than the interval. If there is a one octave interval, for example, in the specified range, set the PB Range to a value of 12 or higher.

**NOTE** Please note that the Song may not play back properly if you set the PB Range (3) to the value different from the one set via the Voice Edit mode. In order that the Song plays back properly, insert the MIDI event below to the corresponding track in the Song Edit display (page 151).  
RPN [000-000] xxx  
(Enter the Pitch Bend value to xxx.)

**07: Create Roll**

This Job creates a series of repeated notes (like a drum roll) in the specified range with the specified continuous changes in clock step and velocity. This is ideal for creating fast staccato rolls and special stuttering effects. This Job also allows you to program crescendo or decrescendo volume changes in the Roll data.

**1 Track and range**

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

**2 Start Step****3 End Step**

Determines the size of the step (i.e., the number of clocks) between each note in the roll. The smaller the value, the finer the roll. Both the starting and ending clock values can be specified, making it easy to create rolls in which the step size varies during the roll.

**Settings:** 015 – 999

**NOTE** If you want to create a roll that goes from 64th – 32nd notes, set the Start and End step values to around 30 – 60, respectively.

**4 Note**

Determines the specific note (or instrument in Drum Voices) for the roll effect. You can also set the note directly from the Keyboard, by holding down the [SF6] button and pressing the desired key.

**Settings:** C -2 – G8

**5 Start Velocity****6 End Velocity**

Determines the velocity of the notes in the roll. Both the starting and ending velocity values can be specified, making it easy to create rolls in which the velocity increases or decreases. This lets you create rolls that gradually increase or decrease in volume (crescendo/decrescendo).

**Settings:** 001 – 127

## 08: Sort Chord

This job sorts chord events (simultaneous note events) by order of pitch. The sort affects the order of the notes in the Event List display (page 151), but does not change the timing of the notes. When used to pre-process chords before using the Separate Chord Job (below), Chord Sort can be used to simulate the “stroke” or strumming sound of guitars and similar instruments.



### 1 Track and range

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Type

Determines how the chord note data is sorted.

**Settings:** up, down, up&down, down&up

up

The notes are sorted in ascending order. After executing this Job with this setting, execute the Separate Chord Job to create a guitar-like upstroke strum.

down

The notes are sorted in descending order. After executing this Job with this setting, execute the Separate Chord Job to create a guitar-like downstroke strum.

up&down

Sorts chord notes on downbeats in ascending order and chord notes on up beats in descending order, based on the Grid setting, below. After executing this Job with this setting, execute the Separate Chord Job to create a guitar-like upstroke and downstroke strum.

down&up

Sorts chord notes on downbeats in descending order and chord notes on up beats in ascending order. After executing this Job with this setting, execute the Separate Chord Job to create a guitar-like upstroke and downstroke strum.

### 3 Grid

Determines the type of note that serves as the basis for the Chord Sort Job.

**Settings:** 32nd note, 16th note triplet, 16th note, 8th note triplet, 8th note, 1/4 note triplet, 1/4 note

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

## 09: Separate Chord

This Job slightly separates notes in chords within the specified range, inserting a specified number of clocks between each note. Use this Job after the Chord Sort Job above, to create guitar-like upstroke or downstroke effects.



### 1 Track and range

Determines the Song track (01 – 16, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Clock

Determines the number of clock cycles inserted between adjacent chord notes. Depending on the setting here, the note event may overstep the next note or the range (set above). If such a situation occurs, the overstepping note events are moved to the point (clock) before the next note or within the range when executing the Job.

**Settings:** 000 – 999

## [F3] Event Jobs

### 01: Shift Clock

This Job shifts all data events in the specified range forward or backward by the specified number of clocks.



### 1 Track and range

Determines the Song track (01 – 16, tempo, scene, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Clock

Determines the amount by which the data will be delayed or advanced in measures, beats, and clocks.

**Settings:** 001:1:000 – 999:4:479 (when the Meter is 4/4)

**NOTE** The available values of the beat and clock differ depending on the meter.

### 3 Direction

Determines the direction in which the data will be shifted. Advance moves the data toward the beginning of the sequence, while Delay shifts the data toward the end of the sequence.

**Settings:** Advance, Delay

## 02: Copy Event

This Job copies all data from a specified source range to a specified destination location.



### 1 Track and range

Determines the Song track (01 – 16, tempo, scene, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Number of Times

Determines the number of times the data is copied.

**Settings:** x 01 – x 99

### 3 Track and location

Determines the destination track (01 – 16, tempo, scene, all) and range (Measure : Beat : Clock) of the destination.

#### NOTICE

When Copy Event is executed, any data already existing at the Destination location will be overwritten.

## 03: Erase Event

This Job clears all specified events from the specified range, effectively producing a segment of silence.



### 1 Track and range

Determines the Song track (01 – 16, tempo, scene, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Event Type

Determines the event type to be erased. All events are cleared when “all” is selected. Individual Control numbers can be specified when erasing CC & Ch.Mode events.

#### Settings:

When Track is set to one of 01 – 16:

Note, Program Change, Pitch Bend, CC & Ch.Mode (Control Change and Channel Mode Message)\*, Ch After Touch (Channel Aftertouch), Poly After Touch (Polyphonic Aftertouch), System Exclusive, all  
\* You can specify the Control Number (000 – 127, all).

When Track is set to “tempo”:

Tempo Change

When Track is set to “scene”:

Scene Memory, Track Mute

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

## 04: Extract Event

This Job moves all instances of specified event data from a specified range of a track to the same range in a different track.



### 1 Track and range

Determines the Song track (01 – 16) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Event Type

Determines the event type to be extracted. Specific Note Numbers and Control Numbers (of the Control Change and Channel Mode message) can also be specified as required.

**Settings:** Note\*, Program Change, Pitch Bend, CC & Ch.Mode (Control Change and Channel Mode Message)\*, Ch After Touch (Channel Aftertouch), Poly After Touch (Polyphonic Aftertouch), System Exclusive  
\* You can specify the Note Number (C -2 – G8, all) and Control Number (000 – 127, all) respectively.

**NOTE** When the Event Type is set to “Note,” you can also set the Key directly from the keyboard by holding down the [SF6] KBD button and pressing the desired key.

### 3 Track

Determines the destination track (01 – 16).

#### NOTICE

The original data in the source range specified above will be erased.

## 05: Create Continuous Data

This Job creates continuous pitch bend or control change data over the specified range.



### 1 Track and range

Determines the Song track (01 – 16, tempo, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Event Type

Determines the event type to be created.

#### Settings:

When the Track is set to one of 01 – 16 and all:

Pitch Bend, Control Change\*, Ch. After Touch (Channel Aftertouch), System Exclusive

\*You can also specify the Control Number (0 – 119)

When the Track is set to "tempo":

Tempo Change

**NOTE** You can produce accelerando/ritardando by applying this Job to the Tempo track. This is useful, for example, in slowing down the tempo in the Ending section of a Song.

**NOTE** When "System Exclusive" is selected, the continuous data of the Master Volume is created.

**NOTE** You can call up the list and select the desired one by pressing the [SF6] LIST button. For details, see page 37.

### 3 Data Range

Determines the lower and upper limits for the data range to be created.

**Settings:** 0 – 127 (-8192 – +8191 when the Event Type is set to "Pitch Bend" and 5.0 – 300.0 when the Event Type is set to "Tempo Change.")

### 4 Clock

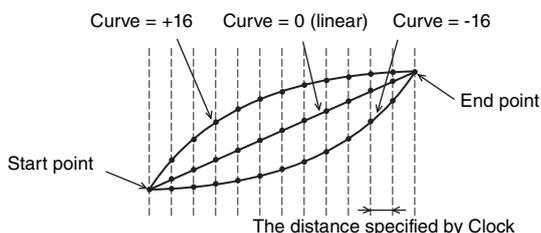
Determines the number of clocks to be inserted between each created event.

**Settings:** 001 – 999

### 5 Curve

Determines the curve of the continuous data. Refer to the graph below for approximate curve shapes.

**Settings:** -16 – +16



## 6 Number of Times

Determines the number of times the data creation is to be repeated. For example, if data is created in the range M001:1:000 – M003:1:000 and this parameter is set to 03, the same data will be created at M003:1:000 – M005:1:000 and M005:1:000 – M007:1:000. This Job lets you insert continuous volume (expression) or filter cutoff variations to create tremolo or wah effects.

**Settings:** x 01 – x 99

## 06: Thin Out

This Job thins out or selectively removes the specified type of continuous data in the specified range—allowing you to free up memory space for other data or further recording.



### 1 Track and range

Determines the Song track (01 – 16, tempo, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Event Type

Determines the event type to be thinned. The Thin Out Job will not work on continuous data that has a clock interval of greater than 60 clocks per event.

#### Settings:

When the Track is set to one of 01 – 16 and all:

Pitch Bend, CC & Ch. Mode (Control Change and Channel Mode Message)\*, Ch. After Touch (Channel Aftertouch), Poly After Touch (Polyphonic Aftertouch)

\*You can also specify the Control Number (0 – 127, all)

When the Track is set to "tempo":

Tempo Change

## 07: Modify Control Data

This Job lets you change the values of specified data such as Pitch Bend and Control Change in the specified range. Data changes are calculated as follows:

Modified value = (original value x Rate) + Offset.

Any result lower than the minimum is set to the minimum; any result higher than the maximum is set to the maximum.



### 1 Track and range

Determines the Song track (01 – 16, tempo, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Event Type

Determines the event type to be modified.

#### Settings:

When the Track is set to one of 01 – 16 and all:

Pitch Bend, CC & Ch. Mode (Control Change and Channel Mode Message)\*, Ch. After Touch (Channel Aftertouch), Poly After Touch (Polyphonic Aftertouch)

\*You can also specify the Control Number (0 – 127, all)

When the Track is set to "tempo":

Tempo Change

### 3 Set All

Sets all target events to the same fixed value. When set to "off" the Set All parameter has no effect. When set to a value other than "off," the Rate and Offset parameters are unavailable and cannot be set.

**Settings:** off, 000 – 127 (off, -8192 - +8191 when the Event Type is set to "Pitch Bend" and off, 5.0 – 300.0 when the Event Type is set to "Tempo Change.")

### 4 Rate

Determines the percentage by which the target events will be shifted from their original values. When the Set All parameter (above) is set to other than "off," this parameter cannot be set.

**Settings:** 000% – 200%

### 5 Offset

Adds a fixed value to the Rate-adjusted event values. When the Set All parameter (above) is set to other than "off," this parameter cannot be set.

**Settings:** -127 – +127 (-8192 – +8191 for pitch bend)

## 08: Beat Stretch

This Job performs time-expansion or compression over the selected range.



### 1 Track and range

Determines the Song track (01 – 16, tempo, all) and range (Measure : Beat : Clock) over which the Job is applied.

### 2 Rate

Determines the amount of time expansion or compression as a percentage. Settings higher than 100% produce expansion, and settings below 100% produce compression. A setting of 100 produces no change.

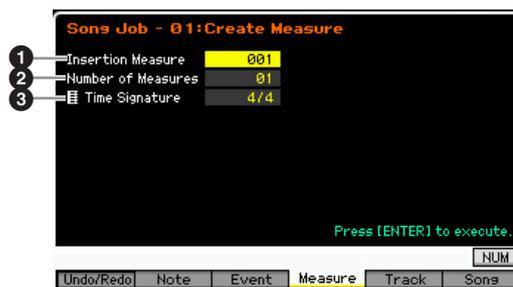
**Settings:** 025% – 400%

**NOTE** Only the end point of the range will be shifted forward or backward by executing the Beat Stretch Job. The data outside the specified range will be maintained. When expanding the data, the converted data may overlap the data outside the range. When compressing the data, an interval of silence will be created between the end of the compressed data and the start of the next data outside the range.

## [F4] Measure Jobs

### 01: Create Measure

This Job creates empty measures at the specified location in all tracks. When empty measures are inserted, measure and meter data following the insert point are moved forward accordingly. If the insert point is set after the last measure containing data, only the meter data at that point is set without actually inserting any measures.



Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

### 1 Insertion point

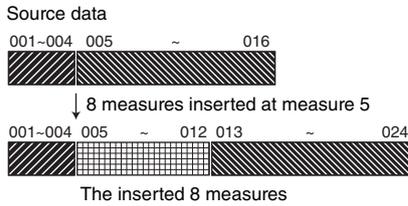
Determines the insert point (measure number) at which the newly created blank measures will be inserted.

**Settings:** 001 – 999

### 2 Number of measures to be inserted

Determines the number of empty measures to be created and inserted.

**Settings:** 01 – 99



### 3 Meter of measures to be inserted

Determines the meter or time signature of the measures to be created. You may find it convenient to use this parameter when you need to create a Song that incorporates meter changes.

**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

## 02: Delete Measure

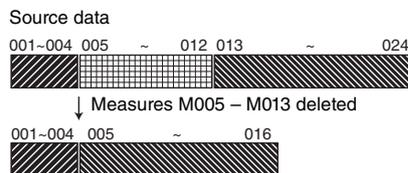
This Job deletes the specified measures. Measure and meter data following the deleted measures are moved backward accordingly.



### 1 Delete range

Specifies the range of measures to be deleted.

**Settings:** 001 – 999



## [F5] Track Jobs

### 01: Copy Track

This Job copies all data of the selected type from a specified source track to a specified destination track.



### 1 Source Song and Track

Determines the copy source Song and track (01 – 16). When the Current box is checked, the current Song is selected as Source.

### 2 Data Type to be copied

Determines the type(s) of data to be copied.

**Settings:** Sequencer Event (all events in the track), Play Effect, Mix Part Parameter (all Mixing Part parameters), Sample Voice

**NOTE** When there is no memory available in the destination Song for Sample Voice data, an alert message will appear on the display and the Sample Voice data will not be copied even though the check box of the Sample is marked. If this occurs, use the Delete Job (page 200) in the Mixing Voice Job to delete any unused Sample Voices, then try again.

### 3 Destination Song and Track

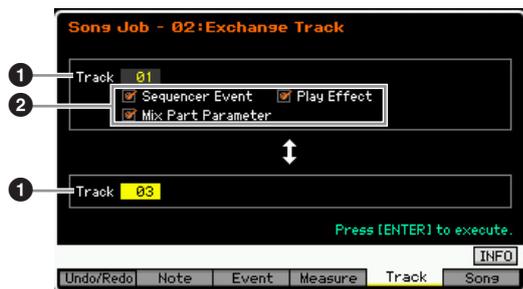
Determines the destination Song and track (01 – 16). When the Current box is checked, the current Song is selected as Destination.

#### NOTICE

- The copy operation overwrites any data previously existing on the destination track.
- Undo/Redo cannot be used to undo/redo a Sample Voice copy operation.

## 02: Exchange Track

This Job exchanges or “swaps” the specified type of data between two specified tracks in the current Song.



### 1 Track

Determines the tracks (01 – 16) to which the Job is applied.

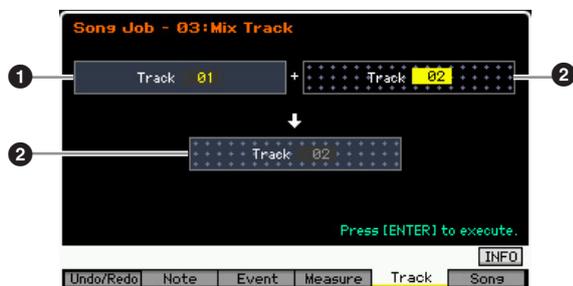
### 2 Data Type

Determines the type(s) of data to be exchanged. Select the desired type by checkmarking the appropriate box.

**Settings:** Sequencer Event (all events in the track), Play Effect, Mix Part Parameters

## 03: Mix Track

This job mixes all data from two selected tracks (1 and 2), and places the result in track 2. Keep in mind that applying this Job to tracks with Sample Voices does not mix the Sample Voices. The Sample Voice itself will not be mixed.



## 04: Clear Track

This Job deletes all data of the selected type from the selected track.



### 1 Track

Determines the Song track (01 – 16, tempo, scene, all) to which the Job is applied.

### 2 Data type to be cleared

Determines the type(s) of data to be cleared. Select the desired type by checkmarking the appropriate box.

**Settings:** Sequencer Event (all events in the track), Play Effect, Mix Part Parameter (all Mixing Part parameters), Sample Voice

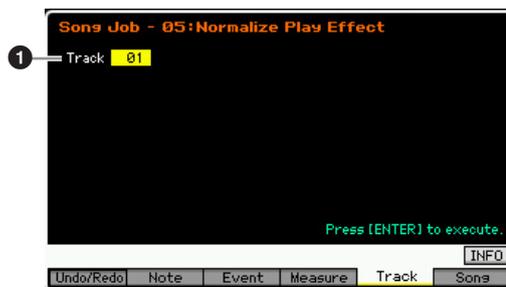
### NOTICE

**Undo/Redo cannot be used to undo/redo a Clear operation for tracks that contain sample data.**

**NOTE** The Waveform on SDRAM cannot be deleted via this Job even if the Sample Voice box is checked. If you want to actually delete the Waveform, use the Delete Job (page 135) in the Sampling Job mode.

## 05: Normalize Play Effect

This job rewrites the data in the selected track so that it incorporates the current Play Effect settings.



### 1 Track

Determines the Song track (01 – 16, all) to which the Job is applied.

## 06: Divide Drum Track

This Job separates the note events in a drum performance assigned to a specified track, and places the notes corresponding to different drum instruments in separate tracks (tracks 1 through 8). The division table below is designed assuming the GM Drum Voice is used. If you want to apply this Job to the sequence data using a Drum Voice other than a GM Voice, you should confirm the arrangement of the drum/percussion instruments for each Drum Voice by using the separate Data List.



Voice mode
Performance mode
Sampling mode 1
Song mode
Pattern mode
Mixing mode
Sampling mode 2
Master mode
Utility mode
File mode

**1 Track**

Determines the Song track (01 – 16) to which the Job is applied.

Track 1	Bass Drum
Track 2	Click, Bass Drum, Snare Drum, etc.
Track 3	Snare Drum
Track 4	Brush SD, Side Stick, Hand Clap, etc.
Track 5	Hi Hat
Track 6	Ride Cymbal
Track 7	Tom, Crash/Splash/Chinese Cymbal
Track 8	Percussion, etc.

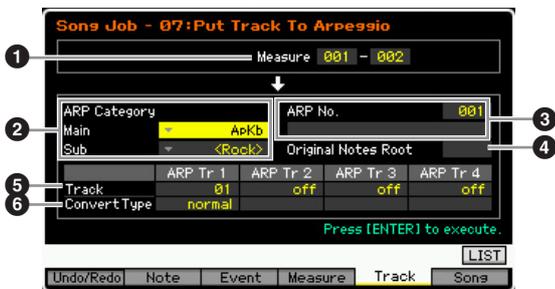
\* The drum instruments of the different note numbers will be assigned to each of tracks, meaning that the Bass Drum of Track 1 is different from the Bass Drum of Track 2, for example.

**NOTICE**

Executing the Divide Drum Track overwrites any data previously existing on the destination tracks 1 – 8. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

**07: Put Track to Arpeggio**

This Job copies data in the specified measures of a track for creating Arpeggio data. Up to 16 unique note numbers can be recorded to the Arpeggio track. If more than 16 different note numbers have been recorded to the MIDI sequence data, the Convert operation reduces the notes in excess of the limit. Because of this, be careful to record only up to 16 different notes when you create an Arpeggio, especially when using all four tracks.



**1 Range**

Determines the range of measures to be copied to the Arpeggio data.

**Settings:** 001 – 999

**2 ARP Category (Arpeggio Category)**

Determines the Category setting (Main Category and Sub Category) for the created Arpeggio data. The Main Categories are listed on page 15.

**NOTE** You can call up the list and select the desired one by pressing the [SF6] LIST button. For details, see page 37.

**3 ARP No. (Arpeggio number/name)**

Determines the User Arpeggio number (001 – 256) and name as destination. The Arpeggio name can contain up to 20 characters. You can call up the Character List display by pressing the [SF6] CHAR button and enter the name. For detailed instructions in naming, refer to “Basic Operation” on page 37.

**NOTICE**

Any previous Arpeggio data in this number will be overwritten.

**4 Original Notes Root**

Determines the root note when the Convert Type of any track is set to “org notes.”

**Settings:** C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

**5 Track**

Determines the track of the source Song for each Arpeggio track.

**6 Convert Type**

Determines how the MIDI sequence data (of Song tracks) will be converted to Arpeggio data from the three ways below. This parameter can be set for each track.

**Settings:** normal, fixed, org notes

**normal**

The Arpeggio is played back using only the played note and its octave notes.

**fixed**

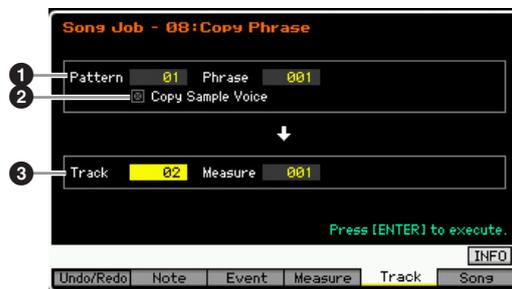
Playing any note(s) will trigger the same MIDI sequence data.

**org notes (original notes)**

Basically same as “fixed” with the exception that the Arpeggio playback notes differ according to the played chord.

**08: Copy Phrase**

This Job copies the Phrase (created in the Pattern mode) to a specified track of the current Song.



**1 Source Pattern, Phrase**

Determines the source Pattern and Phrase number.

**2 Copy Sample Voice**

When this box is checkmarked, Sample Voices assigned to the source phrase (actually the corresponding Mixing Part) are copied to the destination track, and are assigned to the corresponding Mixing Part of the current Song. This

parameter has no effect when no Sample Voice is used by the selected phrase.

### ③ Track, Measure

Determines the destination Track (01 – 16) and Measure number (001 – 999) at which the copied Phrase starts.

#### NOTICE

This Job overwrites any data already existing in the destination track with the exception of the Mixing setup.

## [F6] Song Jobs

### 01: Copy Song

This Job copies all data from a selected source Song to a selected destination Song.



#### ① Source Song

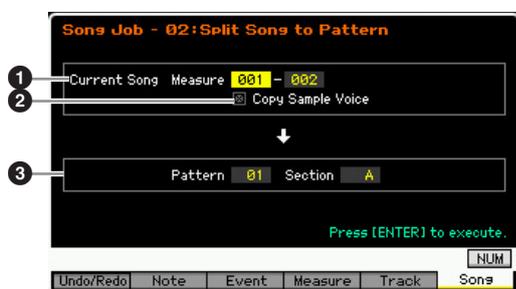
#### ② Destination Song

#### NOTICE

This Job overwrites any data already existing in the destination Song.

### 02: Split Song to Pattern

This Job allows you to copy a Part of the current Song to a specific Pattern,



#### ① Range

Determines the range of measures to be copied to a Pattern.

**Settings:** 001 – 999

### ② Copy Sample Voice

When this box is checkmarked, Sample Voices used by the source Song are copied to the destination Pattern as Sample Voices, and are assigned to the Mixing Part corresponding to the destination track. This checkbox has no effect if no Sample Voices are assigned to the tracks in the source Song.

### ③ Pattern, Section

Determines the destination Pattern and Section (A – P).

#### NOTICE

This Job overwrites any data including the Mixing setup already existing in the destination Pattern and section.

### 03: Clear Song

This job deletes all data (including the Sample Voices and Mixing Voices) from the selected Song or all Songs. It can also be used to delete all 64 Songs at the same time.



#### ① Song

Determines the Song number to be erased.

**NOTE** The Waveform on SDRAM cannot be deleted via this Job even if the Sample Voice is used in the specified Song. If you want to actually delete the Waveform assigned to the Sample Voice used in the specified Song, use the Delete Job (page 135) in the Sampling Job mode.

# Pattern Playback

The Pattern mode lets you play, record, edit and play your own original rhythm patterns. The Pattern Play mode is the main 'portal' by which you enter the Pattern mode, and it is here where you select and play a Pattern. You can also create your own Patterns by assembling Phrases—short rhythmic passages and 'building blocks'—and create Pattern Chains in which Patterns can be combined together in custom order. To enter the Pattern Play mode, simply press the [PATTERN] button.

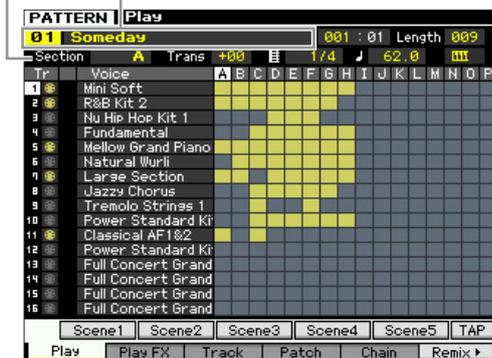
**NOTE** The word "Pattern" refers to a short rhythmic passage of several measures which is looped and played back indefinitely. A Pattern includes 16 variations called "Sections." You can use Sections by changing them during playback. A Pattern consists of 16 tracks and can be created by assigning a Phrase to each track from the Patch display (page 170). For details about the Patterns, Sections and Phrases, see page 13.

**NOTE** From the Play display in the Pattern Play mode, you can select the Voice of the Mixing Part corresponding to the current Track by pressing the [CATEGORY SEARCH] button.

## Pattern Playback Procedure

### 1 Press the [PATTERN] button to call up the Pattern Play display (page 168).

Section      Pattern number, Pattern name



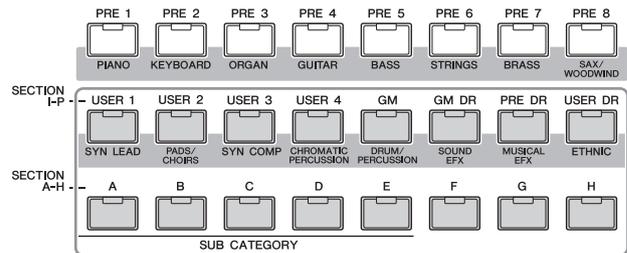
### 2 Select a Pattern.

Move the cursor to the Pattern number, then select the desired Pattern by using the data dial, [INC/YES] and [DEC/NO] button. The name of the selected Pattern is displayed. If you press the [PROGRAM] button so that its lamp lights, you can select the desired Pattern by using the Group [A] – [D] buttons and the Number [1] – [16] buttons. Pattern numbers and the corresponding buttons are as follows.

Button Combinations	Pattern Number
[A]+[1] – [16]	01 – 16
[B]+[1] – [16]	17 – 32
[C]+[1] – [16]	33 – 48
[D]+[1] – [16]	49 – 64

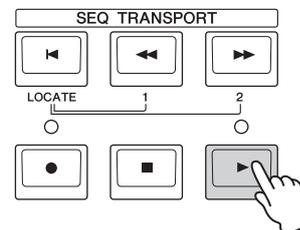
### 3 Select a Section (A – P) of the selected Pattern.

Move the cursor to the Section, then select the desired Section by using the data dial, [INC/YES] and [DEC/NO] button. If you press the [TRACK] button so that its lamp lights, you can select the desired Section by using the SECTION [A] – [H] buttons for Sections A – H, [USER 1] – [USER DR] buttons and [ETHNIC] button for Sections I – P.



### 4 Press the [▶] (Play) button to start playback of the Pattern.

Pattern playback continues repeatedly until you press the [■] (Stop) button. Press the [■] (Stop) button to stop playback of the Pattern. Press the [▶] (Play) button again to resume playback from that point.



## Playback types

### Starting playback by pressing a note

When the Keyboard Start function is set to on, Pattern playback begins as soon as you press a key on the keyboard. Move the cursor to the Keyboard Start icon then press the [INC/YES] button to enable Keyboard Start. In this status, press any key to start Pattern playback.



## Playback from the middle of the Pattern

To start playback of the Pattern from midway through the Pattern, set the desired location by using the controls below, then press the [▶] (Play) button. These operations can also be executed during playback.

Forward	Press the [▶▶] (Forward) button.
Fast forward	Hold the [▶▶] (Forward) button.
Rewind	Press the [◀◀] (Rewind) button.
Fast Rewind	Hold the [◀◀] (Rewind) button.
Move to the top of the Pattern	Press the [⏮] button.

### Fast Forward/Rewind

This operation is the same as in the Song Play mode. See page 137.

### Jumping to a specific location in the Pattern

This operation is the same as in the Song Play mode. See page 137.

## Changing the Section during playback

To change Sections during playback, press the [TRACK] button (the lamp lights), then use the SECTION [A] – [H] buttons, [USER1] – [USER DR] buttons and [ETHNIC] button. When selecting a different Section during Pattern playback, “NEXT” and the next Section name appear in the Section column at the top of the display. After the current Section reaches the specified timing, the next Section starts. If you record rhythm patterns such as intro, melody A, fill-in, main theme, and ending to each of Sections, you can play an entire Song by selecting the appropriate Sections during playback.



Current Section or Next Section is indicated here.

## Track mute/solo

This operation is the same as in the Song Play mode. See page 137.

## Change the tempo

This operation is the same as in the Song Play mode. See page 137.

## Assigning various settings related to Pattern playback (Pattern Scene)

From the Pattern Play display, you can assign five different “snapshots” of important Pattern-related parameters such as transpose, tempo, track mute/solo status, and the basic Mixing setup to the [SF1] – [SF5] buttons as Pattern Scenes. One of the convenient advantages of Pattern Scene is that it lets you instantly and automatically execute parameter settings that normally require many button presses or controller operations. Use it during Pattern recording or playback to make instantaneous setting changes. Pattern Scene parameters are same as the ones of Song Scene. See page 137.

### Registering the Pattern Scene

After making the desired settings for the Scene, simultaneously hold down the [STORE] button and press one of the [SF1] to [SF5] buttons. The 8th note icon is shown in the tab corresponding to the Sub Function button to which the Pattern Scene is registered. Press the [STORE] button to store the Pattern data including the Pattern Scene setting.

#### NOTICE

The Pattern Scene settings registered to the [SF1] – [SF5] buttons will be lost if you change the Pattern or turn the power off without executing the Store operation.

### Recalling the Pattern Scene

You can recall the Pattern Scene by press one of the [SF1] to [SF5] buttons.

## Pattern Chain Playback

The Pattern Chain function lets you program Sections in your own custom order, and have them change automatically during playback to create a seamless sequence of backing parts and accompaniment for your live performance or recorded Song. The Chain Play display (page 171) is the ‘portal’ for entering the Pattern Chain function and lets you play back the programmed Pattern Chain. Press the [F5] Chain button from the Pattern Play mode to go to the Pattern Chain Play display.

Pattern Chains can be created from the Chain Record display (page 172) and the Insert function (page 174) on the Chain Edit display. Pattern Chains can be edited in the Chain Edit display (page 173).

Voice mode
Performance mode
Sampling mode 1
Song mode
Pattern mode
Mixing mode
Sampling mode 2
Master mode
Utility mode
File mode
Reference

## Mixing Setup for each track

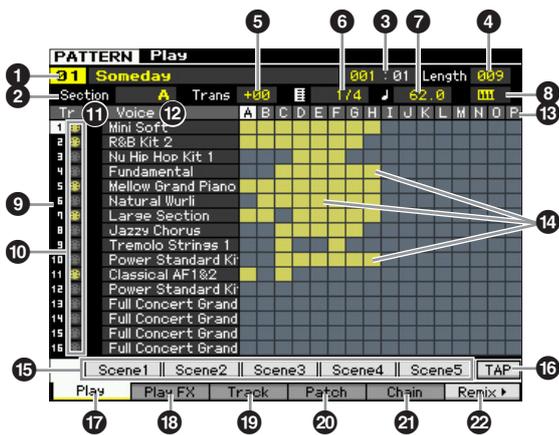
In the Pattern mode as well as in the Song mode, you can set the Mixing parameters such as Voice, volume and pan for each part (track). The structure and parameters are the same as in the Song mode. See page 139.

## Knobs and Control Sliders

By using the knobs and sliders on the front panel, you can adjust various parameters such as pan, effect, cutoff frequency and resonance for each Part (track) of the Pattern. For more information, see page 138.

## Pattern Playback—[F1] Play

This display always appears first when the Pattern mode is engaged. You can play the Pattern by specifying a Section after selecting a Pattern.



**NOTE** Depending on the selected parameter, the NUM icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can use the [SF1] – [SF5] and [F1] – [F5] buttons as number buttons by pressing the [SF6] NUM button. For details, see page 36.

### 1 Pattern number, Pattern name

Determines the Pattern by specifying the number (01 – 64). The name of the selected Pattern is shown. You can change the Pattern name by moving the cursor here and pressing the [SF6] CHAR button.

**NOTE** For detailed instructions on naming, refer to “Basic Operation” on page 37.

### 2 Section

Selects a Section of the selected Pattern. A Pattern can include up to 16 variations called Sections, which can be changed in real time during playback. The Section can be selected via the [A] – [H] buttons (printed “SECTION A – H”) and the [USER1] – [ETHNIC] buttons (printed “SECTION I – P”). For details, see page 167.

**Settings:** A – P

### 3 Measure

Determines the location at which playback starts. This also indicates the current location of playback. The Measure can be set via the SEQ TRANSPORT buttons. For details, see page 136.

**Settings:**

**Measure:** 001 – 256 (Available range of measure differs depending on the length below.)

**Beat:** Indication only



### 4 Length

Determines the Pattern Length.

**Settings:** 001 – 256

### 5 Trans (Transpose)

### 6 Time signature (Meter)

### 7 Tempo

These are the same as in the Song Play mode. See page 168.

### 8 Keyboard Start

When Keyboard Start is set to on, Pattern playback begins as soon as you press a key on of the keyboard.

**Settings:** (on), (off)

### 9 Track number (Indication only)

Indicates the track number.

### 10 Track type (Indication only)

Indicates the track type: MIDI track or Audio track. For Mixing Parts that correspond to Audio tracks, a Sample Voice is assigned. For Mixing Parts that correspond to MIDI tracks, a Voice other than a Sample Voice is assigned. For Mixing Parts that correspond to empty tracks, no Voice is assigned. For more about MIDI Tracks and Audio Tracks, see page 14.

**Settings:** (MIDI Track), (Audio Track)

### 11 Mute/Solo (Indication only)

Indicates the Mute/Solo status for each track. For detailed instructions on setting Mute/Solo, see page 137.

Blank: Neither Mute nor Solo are not assigned to this track.

: Indicates muted track.

: Indicates soloed track.

### 12 Voice (Voice Name)

Indicates the Voice name of the Mixing Part corresponding to each track.

### 13 Section

### 14 Data indicator

Indicates whether the data is recorded or not to each track of Sections A – P. The data indicator is shown at the column of which the Section/Track contains recorded data.

**15 [SF1] Scene1 – [SF5] Scene5**

You can assign the settings of the Pattern-related parameters (Pattern Scene) and Arpeggio-related parameters to these buttons. You can also recall these settings by pressing these buttons. For detailed instructions on registering Scenes, see page 137. For detailed instructions on setting the Arpeggio-related parameters, see page 147.

**NOTE** The Arpeggio is not available during Pattern playback. Pressing the [SF1] Scene 1 – [SF5] Scene 5 buttons during playback changes only the Pattern Scene.

**NOTE** After registering the Pattern Scene, the 8th note icon will appear on the tab corresponding to the pressed button. You can confirm whether or not the Arpeggio Type is assigned to that button in the Arpeggio display (page 147) of the Pattern Record.

**16 [SF6] TAP**

The speed at which you press this button several times will determine the playback tempo of the Arpeggio/Pattern.

**17 [F1] Play**

Calls up the Play display.

**18 [F2] Play FX (Play Effect)**

Calls up the Play Effect display.

**19 [F3] Track**

Calls up the Track display.

**20 [F4] Patch**

Calls up the Patch display (page 170).

**21 [F5] Chain (Pattern Chain)**

Calls up the Pattern Chain display (page 171).

**22 [F6] Remix**

Calls up the Remix display (page 175). This menu is shown only when the cursor is located on the track containing data.

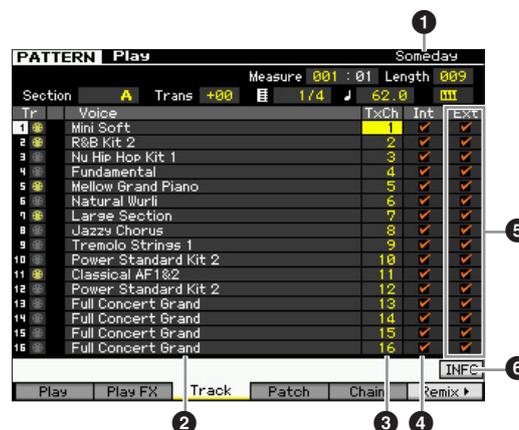
## Changing the rhythmic “feel” of the Pattern—[F2] Play FX (Play Effect)

By changing the timing and velocity of the notes, you can change the rhythmic “feel” of Pattern playback. The Play Effect settings made here are only temporary and don’t change the actual data in the Pattern. The Play Effect settings can be applied actually to the Pattern data by using the Normalize Play Effect Job.

The operation is same as in the Song Play mode. See page 141.

## Track Settings—[F3] Track

This display lets you set the MIDI Transmit Channel for each track.



Regarding parameters with no number, refer to the Play display (page 168).

**1 Pattern name** (Indication only)  
Indicates the name of the current Pattern.

**2 Voice (Voice name)** (Indication only)

**3 TxCh (Transmit Channel)**

**4 Int (Internal Switch)**

**5 Ext (External Switch)**

These are the same as in the Song Play mode. See page 142.

**6 [SF6] INFO (Information)**

You can view the amount of free and used sequencer memory. The sequencer memory covers the all Songs and Patterns recorded in the respective modes. When the used memory amount reaches the maximum capacity, no further Songs or Patterns can be stored. If this occurs, use the Song Job or Pattern Job to delete any unnecessary Songs or Patterns. You can go back to the previous display by pressing the [SF6] button or the [EXIT] button.

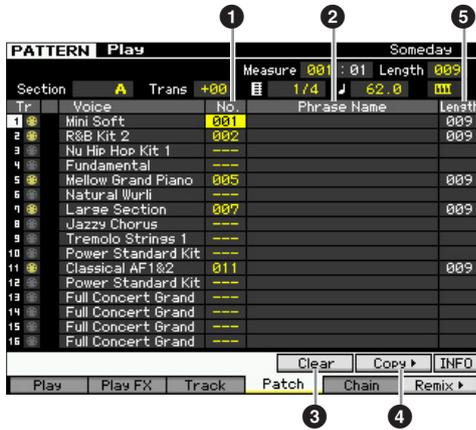


Reference

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

## Pattern Creating—[F4] Patch

This display lets you assign a Phrase to each track to create a Pattern. 16 Sections named A – P can be created for each Pattern. You can assign a User Phrase created with the current Pattern selected. If you wish to use User phrases recorded to tracks of other Patterns, use the Phrase Data Copy function, selected with the [SF5] button.



Regarding parameters with no number, refer to the Play display (page 168).

### 1 No. (Phrase Number)

Determines the Phrase number to be assigned to a track. You can select one of the 256 User Phrases stored to the selected Pattern. Please note that the User Phrases have no data by default. When set to “---,” the track becomes empty.

**Settings:** --- (off), 001 – 256

**NOTE** The MOTIF XF features no Preset Phrase data.

### 2 Phrase Name

Indicates the name of the selected Phrase. You can change the Phrase name by moving the cursor here and pressing the [SF6] CHAR button.

**NOTE** For detailed instructions on naming, refer to “Basic Operation” on page 37.

### 3 [SF4] Clear

Pressing this button clears the Phrase assignment to the currently selected track and leaves the track empty. Move the cursor to the Phrase (track) to be cleared then press the [SF4] button.

### 4 [SF5] Copy

Pressing this button copies a Phrase in another Pattern to the selected one then assign it to the specified track. This is useful if you are creating a Pattern and wish to use the Phrase data from another Pattern.



### 1 Source phrase

Determines the Pattern number and the Phrase number (001 – 256) to be copied.

### 2 Copy Sample Voice

When this box is checkmarked, Sample Voices assigned to the source phrase are copied to the destination phrase as Sample Voices, and are assigned to the corresponding tracks in the selected Pattern.

### 3 Current Pattern Phrase and Track

Determines the number (001 – 256) of the destination Phrase and track (1 – 16) to which the Phrase is assigned.

### NOTICE

- Any previous data in the copy destination will be overwritten. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).
- Undo/Redo cannot be used to undo/redo a Sample Voice copy operation.

### 5 Length (Indication only)

Indicates the length of each Phrase assigned to each track.

## Creating a Pattern

**1 Select a Pattern from the Play display (page 168).**

**2 Press the [F4] button to call up the Patch display.**

**3 Select a Section (A – P).**

Move the cursor to the Section, then select the desired Section by using the data dial, [INC/YES] and [DEC/NO] button.

**4 Set the meter (time signature), tempo, and length of the Pattern.**

Move the cursor to the desired parameter (such as length, time signature or tempo), then set the value by using the data dial, [INC/YES] and [DEC/NO] button.

**5 Assign the desired Phrase to each track.**

Move the cursor to a track then set a Phrase number by using the data dial, [INC/YES] and [DEC/NO] buttons. Phrase assignment can be executed also during Pattern playback.

To confirm whether the Phrase is assigned properly or not, solo the track to which the Phrase is assigned by following the procedure below. Press the [SOLO] button so that its indicator lights and press any of the Number [1] – [16] buttons to select a track to which you assigned the Phrase.

There are three methods that can be used to create a Phrase:

- Recording the new phrase using the Pattern Record function (page 177)
- Copying the Phrase from another Pattern by using the [SF5] button.
- Converting a Part of the Song data to a Phrase by using the Get Phrase from Song Job (page 184).

**6 Repeat steps 3 through 5 above to finalize an entire Pattern.**

Create Sections used for the intro, melody A, melody B, main theme and ending of the entire Song.

**NOTE** It is a good idea to use the Copy Pattern Job (page 186) if you wish to create a Section that is based on or sounds similar to an already existing Section.

**7 Press the [STORE] button to store the Pattern.**

For detailed instructions on storing a Pattern, see page 177.

## Pattern Chain—[F5] Chain (Pattern Chain)

Pattern Chain allows you to string several different Sections together to make a one complete Song. For example, create a Section A for the intro, a Section B for the verse, a Section C for the chorus, and a Section D for the ending—and you have the basic blocks to build an original Song. The created Pattern Chain data can be converted to MIDI sequence data and stored to a Song. To call up the Pattern Chain display, press the [F5] Chain button from the Pattern Play mode.

A Pattern Chain can be created for each Pattern, letting you call up a different, dedicated Pattern Chain each time you select a Pattern.

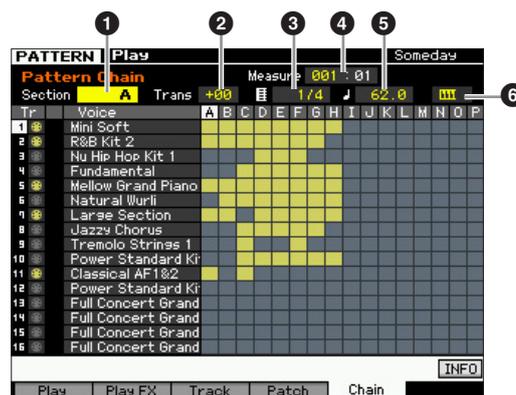
The following events can be recorded to the Pattern Chain.

- Playback order of Sections
- Pattern track on/off—Solo and Mute
- Tempo change
- Time signature change

There are two methods to create a Pattern Chain: Recording playback of a Pattern in the Pattern Record display in real time, and programming the playback order of Sections one by one in the Pattern Chain Edit display. The Pattern Chain data recorded in real time can be edited in the Pattern Chain Edit display.

## Pattern Chain Playback—[F5] Chain

The Pattern Chain display lets you play the Pattern Chain data you've created. Press the [F5] Chain button from the Pattern Play mode to go to the Pattern Chain Play display.



The operation in the Pattern Chain display is basically same as in the Pattern Play display with the exception that the Pattern number cannot be selected. For details on parameters which are not explained here, refer to the Pattern Play display (page 168).

**NOTE** Depending on the selected parameter, the NUM icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can use the [SF1] – [SF5] and [F1] – [F5] buttons as number buttons by pressing the [SF6] NUM button. For details, see page 36.

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Reference  
Sampling mode 2  
Master mode  
Utility mode  
File mode

### 1 Section

Indicates the currently played Section. “NEXT” will be shown here when playback is waiting for the timing of the Section change.

### 2 Trans (Transpose)

Adjusts the pitch of the Pattern Chain playback in semitone increments.

**Settings:** -36 – +0 – +36

### 3 Time signature

Indicates the time signature currently assigned to the Pattern. During playback, the current time signature is shown here.

### 4 Measure

Indicates the measure number of the currently playing Pattern Chain. You can start playback from the middle of the Pattern Chain by specifying the measure here then pressing the [▶] (Play) button.

**Settings:** 001 – 999

### 5 Tempo

Indicates the tempo currently assigned to the Pattern. During playback, the current tempo is shown here.

**Settings:** 5.0 – 300.0

### 6 Keyboard Start

When Keyboard Start is set to on, Pattern Chain playback begins as soon as you press a key on of the keyboard.

**Settings:** on, off

## Pattern Chain Playback Procedure

To start Pattern Chain playback, call up the Pattern Chain display, then press the [▶] (Play) button. When the end of the Pattern Chain data is reached, playback automatically stops. You can also press the [■] (Stop) button during playback to stop playback of the Pattern Chain. Press the [▶] (Play) again to resume playback from that point. Depending on the particular Chain data, the Pattern plays back with automatic changes of the Section, track mute and tempo—all of which are indicated on the display in real time.

**NOTE** You can confirm the Pattern Chain data by calling up the Pattern Chain Edit display.

## Pattern Chain Recording in Realtime— [●] Chain Record

From the Pattern Chain Record display, you can record playback of the Pattern—along with any realtime changes you make. Press the [●] (Record) button from the Pattern Chain Play display to call up the Pattern Chain Record display. Press the [EXIT] button to go back to the Chain Play display.

Events such as Section change, Track mute on/off and Tempo change can be recorded as Pattern Chain data. The Record Type is fixed to “replace” and cannot be changed. Accordingly, recording the events overwrites data in the already recorded range. You can also use the Insert function (page 174) on the Chain Edit display to create the Pattern Chain data.



For details on parameters indicated with numbers above, refer to the Chain display (page 171). For details on all other parameters, refer to the Pattern Play display (page 168).

## Pattern Chain Recording Procedure

### 1 Select a Pattern in the Chain Play display.

This step is necessary because each Pattern has its own dedicated Pattern Chain data.

### 2 Press the [●] (Record) button.

The [●] (Record) indicator lights and the Chain Record display appears.

### 3 Set up the parameters for the start of recording.

Set the basic parameters for recording (e.g., Section, Recording Track mute setting, Time Signature, Tempo and so on). After setting, move the cursor to the Tempo.

### 4 Set the measure at which recording starts.

Normally, press the [⏪] (Top) button to set the top as recording start measure.

### 5 Press the [▶] (Play) button to start recording.

To change Sections in realtime and record them, press the [TRACK] button (the lamp lights), then use the [A] – [H] buttons, [USER 1] – [USER DR] buttons and [ETHNIC] button. To make Track Mute on/off settings, press the [MUTE] button (the lamp lights), then press the appropriate Number [1] – [16] buttons. The tempo can be changed by pressing the [DEC/NO]/[INC/YES] button, turning the data dial, or using the [SF1] – [SF5] and [F1] – [F5] buttons as numeric keys after pressing the [SF6] NUM button.

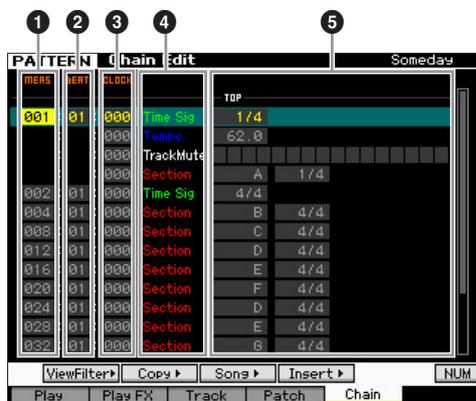
### 6 Press the [■] (Stop) button to stop recording.

### 7 Press the [STORE] button to store the recorded Chain data on the internal User Memory.

**NOTE** For more information on storing a Pattern, see page 177.

## Editing a Pattern Chain—[EDIT] Chain Edit

This mode gives you comprehensive, detailed controls for editing the events of the recorded Pattern Chain. Events such as Section change, Track mute on/off, Tempo change and Meter can be recorded as Pattern Chain data. Press the [EDIT] button from the Chain Play display to call up the Chain Edit display. Press the [EXIT] button to go back to the Chain Play display.



- 1 MEAS (Measure)
- 2 BEAT
- 3 CLOCK

Indicates the location of the corresponding event. Changing any of these values changes the location of the event accordingly.

**Settings:**

- MEAS (Measure): 001 – 256
- BEAT: 01 – 16 (The available range may change depending on the Meter.)
- CLOCK: 000 – 479 (The available range may change depending on the Meter.)

### 4 Event Type

### 5 Setting Values

The following events are available in the Pattern Chain mode.

Section	Change timing of Sections A – P and End event of the data.
TrackMute	The "M" indicates the corresponding track is muted.
Tempo	005.0 – 300.0
TimeSig (Time Signature)	1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

### [SF1] View Filter

This display lets you select the event types that appear on the Chain Edit display. This is particularly useful when many types of events are mixed together, but you only want to display the events you intend to edit.



- 1 Time Signature
- 2 Section
- 3 Track Mute
- 4 Tempo Change

Only events with checked boxes will appear in the Chain Edit display. If the box is set to off, the corresponding event will disappear in the Chain Edit display.

### [SF2] Copy

The function of this display lets you copy events from a specified range to another range.



- 1 Source Range
- 2 Destination Location (Top Measure)

Determines the source range and the top measure of the destination.

**Settings:** 001 – 256

- 3 Number of Times

Determines the number of times the data is copied.

**Settings:** 01 – 99

Voice mode  
 Performance mode  
 Sampling mode 1  
 Song mode  
 Pattern mode  
 Mixing mode  
 Sampling mode 2  
 Master mode  
 Utility mode  
 File mode

Reference

## [SF3] Song (Convert to Song)

Converts the current Pattern chain to MIDI sequence data and copies the data to a specified Song. This function is useful for quickly creating backing and accompaniment parts for Song data.



### 1 Destination Song

Determines the destination Song by specifying the number (01 – 64). The name of the selected Song is displayed.

### 2 Destination Location (Top Measure)

Determines the beginning measure number of the destination.

**Settings:** 001 – 999

### 3 Without Program Change

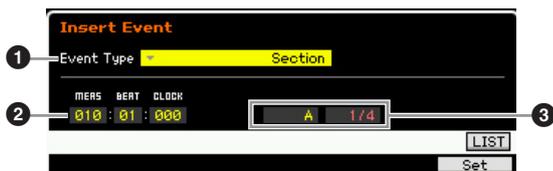
When this box is checkmarked, the settings of the Mixing and Tempo are copied to the destination Song (1). The Tempo value is copied to the top measure (2) of the destination Song. When the checkmark is removed, the Voice settings in each Phrase are also copied to the top measure (2) of the destination Song as Program Change events.

#### NOTICE

This Job operation overwrites any data previously existing in the destination Song and the Undo/Redo (page 182) Job cannot be used after executing this Job. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

## [SF4] Insert

From this display, you can insert a new event to the Pattern Chain. After setting the following parameters, press the [F6] Set button or [ENTER] button to actually insert the event.



### 1 Event Type

Determines the event type to be inserted.

**Settings:** Time Signature, Section, end, Tempo Change, Track Mute end  
Indicates the end position of the Pattern Chain.

### 2 Inserting location

Specifies the location at which the new event will be inserted.

#### Settings:

MEAS (Measure): 001 – 999  
BEAT: 01 – 16 (depends on the meter)  
CLOCK: 000 – 479 (depends on the meter)

### 3 Value of the selected event type

Enters the value of the event to be inserted. The values available differ depending on the selected Event Type (1).

#### Settings:

Time Signature: 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4  
Section: A – P, end (end of the data)  
Tempo Change: 005.0 – 300.0  
Track Mute:  (mute on), blank (mute off)

## [SF5] Delete

Deletes the currently selected event. This button is not available when the cursor is located at the Time Signature event, Tempo Change or top/bottom of the data.

## Pattern Chain Edit Procedure

### 1 Select a Pattern on the Chain Play display.

This step is necessary because each Pattern has its own dedicated Pattern Chain data.

### 2 Press the [EDIT] button to call up the Chain Edit display.

### 3 Edit the already-recorded events.

Move the cursor to each of parameters, then set the value by using the data dial, [INC/YES] and [DEC/NO] buttons. To make it easier to find desired parameters, use the View Filter display called up via the [SF1] button. You can use the Copy function called up via the [SF2] button to copy the events from a specified range to another range.

If you wish to delete the event, move the cursor to the event to be deleted then press the [SF5] button.

If you wish to insert a new event, press the [SF4] button to call up the Insert display. From this display, you can input the events one by one.

### 4 Convert the created Pattern Chain data to a Song.

By using the Convert To Song display called up via the [SF3] button, you can convert the created Pattern Chain data to MIDI sequence data and copy the converted data to a specified Song. This function is useful for quickly creating backing and accompaniment parts for Song data.

## 5 Store the created Pattern Chain data to internal User Memory.

From the Store window called up via the [STORE] button, you can store the current Pattern including the created Pattern Chain data to internal memory. After storing the Pattern data, the Pattern Chain included in the Pattern is maintained even if the power is turned off.

### Entering New Events

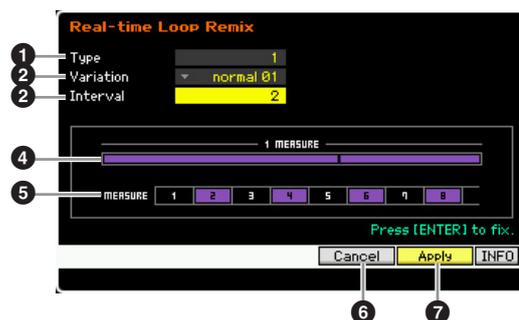
- 1 From the Chain Edit display, press the [SF4] Insert button to call up the Insert window.
- 2 Specify the event type to be inserted, the insertion point (measure, beat, and clock), and parameter value of the event.
- 3 Press the [F6] Set button to insert the specified event at the specified location.  
You can continue inserting new events since the Insert Event window remains open. Press the [ENTER] button to actually insert the event and close the Insert window.
- 4 Press the [EXIT] button to go back to the Chain Play display.

## Dividing the Pattern data to create a new Pattern—[F6] Remix

The Remix function divides the MIDI data in a selected track into several pieces of a specified note length, and randomly rearranges a portion of the data, letting you easily create completely new and unique rhythm variations—all from a single Pattern.

**NOTE** When Remix is used on a track containing a sliced sample voice, the various segments of the sample are rearranged with varied timing. The sample voices can be created by executing the Sampling with the Sampling Type set to “slice+seq” or executing the Sample Slice Job.

**NOTE** The Remix display is available only when the cursor is located on the track containing data.



**1 Type**  
Determines how a single measure is divided. The dividing point and the amount differ depending on the Type setting here. The diagram of the selected Type will be shown. See below (4).

**Settings:** 1 – 16

### 2 Variation

Determines how the segments divided by Type (1) will be rearranged. The division and rearrangement rules differ depending on the Variation setting.

**Settings:** normal 01 – 16, reverse 01 – 16, break 01 – 16, pitch 01 – 16, roll 01 – 16, fill 01 – 48

#### normal 01 – 16

The divided data is only rearranged. 16 variations are provided.

#### reverse 01 – 16

In addition to rearrangement of the divided data, some portions of the data may be played in reverse. 16 variations are provided.

#### break 01 – 16

In addition to rearrangement of the divided data, some portions of the data may be deleted to create breaks. 16 variations are provided.

#### pitch 01 – 16

In addition to rearrangement of the divided data, some portions of the data may be pitch-shifted. 16 variations are provided.

#### roll 01 – 16

In addition to rearrangement of the divided data, some portions of the data may be played with a roll effect. 16 variations are provided.

#### fill 01 – 48

In addition to rearrangement of the divided data, some portions of the data may be played with fill-in. 48 variations are provided.

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

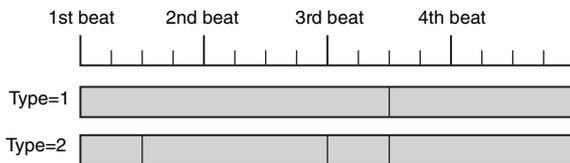
### 3 Interval

Determines the measure interval with which the Remix operation is executed. In other words, this parameter determines the measures to which Remix is applied. When this parameter is set to "1," Remix is applied to all measures. When set to "2," Remix is applied to the data of the 2nd measure, 4th measure, 6th measure, and so on. When set to "3," Remix is applied to the data of the 3rd measure, 6th measure, 9th measure, and so on. The measures to which Remix is applied are shown on the display. See below (5).

Settings: 1 – 8

### 4 Type diagram

Indicates the division point and the amount of division determined by Type (1). The diagram below indicates the division points in 16th note resolution. When Type is set to "1," for example, the data is divided at the upbeat before beat 4. When Type is set to "2," the data is divided at three points: the upbeat before beat 2, the downbeat of beat 3, and the upbeat before beat 4.



### 5 Interval diagram

Indicates the measures to which the Remix is applied. These measures are located at the same interval determined by the Interval (3) parameter. The example below results when setting the Interval (3) to "2."



### 6 [SF4] Cancel

Pressing this button cancels the most recent Remix which has not been fixed yet. This button is not available after the result of Remix is fixed or before Remix is executed.

### 7 [SF5] Apply

Pressing this button executes Remix. If you are not satisfied with the result after Remix is executed, press the [SF4] button and try Remix again. If you are satisfied with the result, press the [ENTER] button to fix the remixed data.

## Remix Procedure

- 1 Set the Type (1), Variation (2) and Interval (3).
- 2 Press the [SF5] button to execute Remix.
- 3 Confirm the result of the Remix operation.  
If you are not satisfied with the result of the Remix, press the [SF4] button then try again.
- 4 Press the [ENTER] button to fix the Remix result.
- 5 Press the [STORE] button to store the Pattern to internal User Memory.

# Pattern Recording

In the Pattern Record mode, you can record your keyboard performance to create a Phrase as a basic material of the Pattern data. The created Phrase is assigned to the specified track automatically. Press the [●] (Record) button from the Pattern Play mode to enter the Pattern Record mode.

**NOTE** Recording of audio data can be done in the Sampling Record mode (page 201).

## Realtime Recording

This method lets you record the performance data as it is played, allowing you to capture all the nuances of an actual keyboard performance. Recording can be done while monitoring playback of other already-recorded tracks. You can select one of two methods for Realtime recording: Replace and Overdub.

## Pattern Recording procedure

Here in outline form is the process of recording a Pattern.

### 1 Select a Pattern, then select a Section to be recorded.

Press the [PATTERN] button to go to the Pattern Play display (page 168), and select a Pattern, then a Section to be recorded. Select an empty Pattern if you wish to create a new Pattern from scratch. If an empty Pattern is not available, delete an unnecessary Pattern by using the Clear Pattern Job (page 187).

### 2 Press the [●] (Record) button to call up the Record Setup display (page 178).

### 3 Set recording-related parameters in the Record Setup display.

Select the track to be recorded and the Recording method to prepare for Pattern Recording. When selecting a track to which no Phrase has been assigned, your keyboard performance will be recorded to an empty Phrase which will be assigned to the recording track. When selecting a track that already has an assigned Phrase, that Phrase will be replaced by your recorded performance. If you wish to record using an Arpeggio, set the necessary parameters from the Arpeggio display (page 178).

### 4 Record your keyboard performance in real time to create a Phrase.

Press the [▶] (Play) button to start recording. Press the [■] (Stop) button to stop recording.

### 5 Edit the recorded Phrase using the Pattern Job (page 181) and Pattern Edit (page 179).

### 6 Store the Pattern (including the recorded Phrase) to internal User Memory.

Press the [STORE] button to call up the Pattern Store window then store the created Pattern.

This ensures that the created Pattern will be retained even if the power is turned off.

#### NOTICE

**The recorded Pattern will be lost when selecting a different Pattern, calling up a different mode, or turning the power off. Make sure to store the Pattern data to internal memory by pressing the [STORE] button before selecting a different Pattern, calling up a different mode, or turning the power off.**

### 7 Save the created Pattern data to a USB storage device or to a connected computer as desired (page 241).

## Storing a Pattern—[STORE] (Pattern Store)

This section covers how to store the Pattern you have recorded and edited. By executing the Store operation, the Pattern data you have created will be retained even if the power has been turned off. Pressing the [STORE] button calls up the Pattern Store window.

The following data will be stored by Pattern Store.

#### Sequence data

Currently selected Pattern (Section A – P), Pattern Chain, Phrase 001 – 256

#### Tone Generator data

Mixing settings (Common Edit parameters and Part Edit parameters)

**NOTE** The Mixing Voices can be edited in the Mixing Voice Store window (page 199).

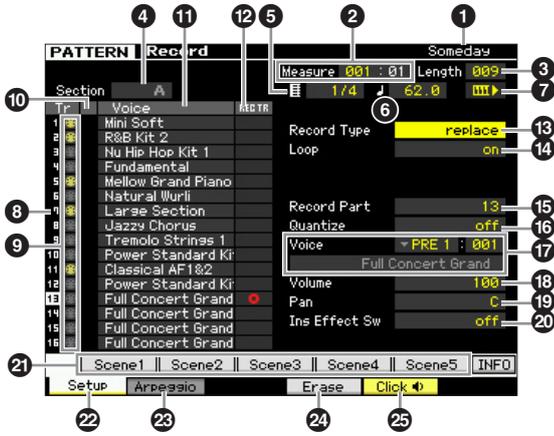
The Pattern Store operation is the same as that of Voice Store (page 54) and Song Store (page 144).

#### NOTICE

**This operation overwrites any data already existing in the destination Pattern. Select a Pattern number containing no data or unnecessary data.**

**NOTE** If there is not enough memory space for the Song/Pattern, an alert message appears, and you will not be able to store any additional Songs/Patterns. If this happens, delete unnecessary Patterns/Songs by using the Song/Pattern Job, then try the Store operation again.

## Preparing the Pattern Recording— [F1] Setup



**1 Pattern name** (Indication only)  
Indicates the name of the current Pattern. The Pattern can be selected in the Pattern Play display (page 168).

**2 Measure**  
Determines the measure from which recording starts. This also indicates the current location of recording.

**Settings:**  
Measure: 001 – 256  
Beat: Indication only



**3 Length**  
Determines the Pattern Length. This also represents the length of the Phrase created via Recording procedure.

**Settings:** 001 – 256

**4 Section** (Indication only)  
Indicates the Section to be recorded. The Section can be set from the Pattern Play display (page 168).

**5 Time signature (Meter)**  
Specifies the meter (time signature) for the Pattern.  
**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

**6 Tempo**  
This is the same as in the Song Record mode. See page 145.

**7 Keyboard Start**  
When Keyboard Start is set to on, Pattern recording begins as soon as you press a key on of the keyboard.  
**Settings:** (on), (off)

- 8 Track number** (Indication only)
- 9 Track type** (Indication only)
- 10 Mute/Solo** (Indication only)
- 11 Voice Name** (Indication only)

These are the same as in the Song Record mode. See page 145.

**12 REC TR (Record Track)**  
Determines the track to be recorded. Move the cursor to the desired track or press any of the Number buttons [1] – [16] with the TRACK lamp turned on so that the red circle is shown in the corresponding column of the REC TR.

**Settings:** 1 – 16

**13 Record Type**  
Determines the Recording method.

**Settings:** replace, overdub

**replace**  
You can use this method when you want to overwrite an already recorded track with new data in real time. The original data will be erased.

**overdub**  
You can use this method when you want to add more data to a track that already contains data. Previously recorded data will be maintained.

**14 Loop (Loop Recording)**  
Determines whether the Recording is looped or not when executing Realtime recording. When set to on, the phrase will play repeatedly during real-time recording. This can be handy when recording drum Parts with the Recording type set to “overdub,” allowing you to add different instruments on each pass. When set to off, recording stops after one pass through the phrase.

- 15 Record Part**
- 16 Quantize (Record Quantize)**
- 17 Voice**
- 18 Volume**
- 19 Pan**
- 20 Ins Effect Sw (Insertion Effect Switch)**

These are the same as in the Song Record mode. See page 146.

**21 [SF1] Scene1 – [SF5] Scenes5**  
You can change the settings of the Pattern-related parameters (Pattern Scene) and Arpeggio-related parameters by pressing these buttons. For details, refer to the description of the same buttons in the Pattern Play mode on page 169.

**22 [F1] Setup**  
Pressing this button returns from the previous display to the Record Setup display.

**23 [F2] Arpeggio (Record Arpeggio)**  
The operation is same as the one in the Record Arpeggio display (page 147) in the Song mode.

Reference

Voice mode  
Performance mode  
Sampling mode 1  
Song mode  
Pattern mode  
Mixing mode  
Sampling mode 2  
Master mode  
Utility mode  
File mode

**24 [F4] Erase**

This menu appears as soon as Recording starts. During Pattern recording, pressing the key while holding the [F4] button erases all the note events of the pressed key. This is useful in loop recording since it allows you to quickly delete wrong notes played for a specific key.

**25 [F5] Click**

This is the same as in the Song Record mode. See page 146.

## Realtime Recording Procedure

This section explains how to record your performance using the Realtime Recording features. Please keep in mind that the procedure differs depending on the Record Type and Record Track set from the Record Setup display. The operation is same as the one in the Song Record display (page 147).

## Editing MIDI Events (Pattern Edit)

The Pattern Edit mode lets you edit the already recorded Phrases or insert the new data to the Phrases. It can be used to correct mistakes as well as add dynamics or effects such as vibrato to refine and finish the Phrase. Press the [EDIT] button from the Pattern Play mode to go to the Pattern Edit mode.

**NOTE** The Pattern Edit mode gives you comprehensive, detailed controls for editing the MIDI events of individual Pattern tracks. MIDI events are messages (such as note on/off, note number, program change number, etc.) that make up the data of a recorded phrase.

**NOTE** Like the Song Edit mode, Pattern Edit consists of the Event List display and the Insert Event window. The Event List display lets you correct or delete already inserted MIDI events and the Insert Event window lets you insert new events to the Pattern. By using the Insert Event window, you can input the events one by one. The Event List display will always appear when the Pattern Edit mode is first called up.

### Editing the recorded data

Here in outline form is the process of correcting or deleting already recorded events.

#### 1 Select a track to be edited in the Pattern Play display.

If you wish to edit a certain phrase, press the [F4] button to call up the Patch display (page 170), then select the desired Phrase.

#### 2 Press the [EDIT] button to enter the Pattern Edit mode.

The Event List display (page 180) of the Pattern appears.

**NOTE** You can select the desired track with the Number buttons [1] – [16] by pressing the [TRACK] button (the lamp lights) after entering the Pattern Edit mode.

#### 3 Move the cursor to the event or parameter to be edited.

Use the [^]/[V] (Cursor Up/Down) button to move the cursor to the desired timing. Press the [◀◀] (Rewind)/[▶▶] (Fast Forward) button to move the cursor by single measures. Use the [<]/[>] (Cursor Left/Right) button to move the cursor to the parameter to be edited.

**NOTE** For details about each event and parameter, see page 30.

**NOTE** Use the View Filter function (page 180) to help you quickly find desired events.

#### 4 Change the parameter settings or location of the event.

Edit the value by using the [INC/YES], [DEC/NO] buttons and the data dial. The edited event will flash on the display.

Change the event location by editing the MEAS (measure), BEAT, and CLOCK.

Press the [F6] button to delete the event at the cursor location.

#### 5 After you've finished editing a parameter, press the [ENTER] button to confirm and enter the edit (the event will stop flashing).

If the cursor is moved to a new event while the current event is still flashing, editing of the current event is cancelled.

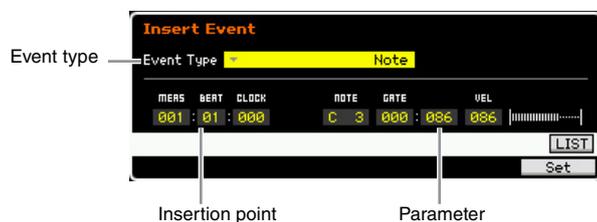
#### 6 Press the [EXIT] button to go back to the Pattern Play display.

#### 7 Press the [STORE] button to call up the Pattern Store window (page 177), then store the created Pattern.

## Inserting the New Event

This section shows how to insert new events to the current Song.

- 1 From the Event List display, press the [F5] Insert button to call up the Insert Event window.



- 2 Specify the event type to be inserted, the insertion point (measure, beat, and clock), and parameter value of the event.

When the cursor is located on the Event Type, you can call up the list of event types to be input by pressing the [SF6] LIST button and select one from the list. For details about each event and parameter, see page 30.

- 3 Press the [F6] Set button to insert the specified event at the specified location.

The Insert Event window remains open, allowing you to continue inserting new events. Press the [ENTER] button to actually insert the event and close the Insert Event window.

- 4 Press the [EXIT] button to go back to the Event List display.

## Event List display

In the Event List display, MIDI events (including mainly values such as note number, velocity, and control change value) are listed and can be edited. Here you can edit or delete previously recorded events.

This is the same as the Event List display in the Song Edit mode. For details, see page 151.

## Changing the MIDI event view—[F2] ViewFilter

This is the same as the View Filter in the Song Edit mode. For details, see page 152.

# Pattern Jobs

The Pattern Job mode contains a comprehensive set of editing tools and data transform functions you can use to change the sound of the Pattern or Phrase. It also includes a variety of convenient operations, such as copying or erasing data. 36 Pattern Jobs are available.

Function	Description
<b>[F1] Undo/Redo</b>	Undo Job cancels the changes made by the most recent operation, restoring the data to its previous state. Redo Job cancel Undo and restores the changes.
<b>[F2] Note</b>	<b>Note data Jobs</b>
01: Quantize	These are the same as in the Song Job mode. See page 153.
02: Modify Velocity	
03: Modify Gate Time	
04: Crescendo	
05: Transpose	
06: Glide	
07: Create Roll	
08: Sort Chord	
09: Separate Chord	
<b>[F3] Event</b>	<b>Event Jobs</b>
01: Shift Clock	These are the same as in the Song Job mode. See page 153.
02: Copy Event	
03: Erase Event	
04: Extract Event	
05: Create Continuous Data	
06: Thin Out	
07: Modify Control Data	
08: Beat Stretch	
<b>[F4] Phrase</b>	<b>Phrase Jobs</b>
01: Copy Phrase	This Job copies a selected Phrase to the designated destination Phrase.
02: Exchange Phrase	This Job exchanges the contents of two specified Phrases.
03: Mix Phrase	This Job mixes all data from two selected user Phrases.
04: Append Phrase	This Job appends one Phrase to the end of another to create one longer Phrase.
05: Split Phrase	This Job splits a selected Phrase into two separate Phrases.
06: Get Phrase from Song	This Job copies a segment of sequence-track data from a Song into the designated destination Phrase.
07: Put Phrase to Song	This Job copies a selected user Phrase into a specified area of a selected Song.
08: Clear Phrase	This Job deletes all data from the selected Phrase.
<b>[F5] Track</b>	<b>Track Jobs</b>
01: Copy Track	This Job copies all data of the selected type from a specified source track to a specified destination track.
02: Exchange Track	This Job exchanges or “swaps” the specified type of data between two specified tracks in the current Song.
03: Mix Track	This Job mixes all data from two selected tracks.
04: Clear Track	This Job deletes all data of the selected type from the selected track.
05: Normalize Play Effect	This Job rewrites the data in the selected track so that it incorporates the current Play FX/Groove/MIDI Delay settings.
06: Divide Drum Track	This Job separates the note events in a drum performance assigned to a specified track, and places the notes corresponding to different drum instruments in separate tracks (tracks 1 through 8).
07: Put Track to Arpeggio	This Job copies data in the specified measures of a track for creating Arpeggio data.
<b>[F6] Pattern</b>	<b>Pattern Jobs</b>
01: Copy Pattern	This Job copies all data from a selected source Pattern to a selected destination Pattern.
02: Append Pattern	This Job appends one Pattern to the end of another to create one longer Pattern.
03: Split Pattern	This Job splits a selected Pattern into two separate Patterns.
04: Clear Pattern	This Job deletes all data from the selected Pattern, or from all Patterns.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

## Pattern Job Procedure

- 1 From the Pattern Play display, press the [JOB] button to enter the Pattern Job mode.
- 2 Select the desired Job menu by pressing one of the [F1] – [F6] buttons.
- 3 Move the cursor to the desired Job by using the data dial, [INC/DEC] and [DEC/NO] buttons, then press the [ENTER] button to call up the Job display.
- 4 Move the cursor to the desired parameter, then set the value by using the data dial, [INC/YES] and [DEC/NO] buttons.

- 5 After setting, press the [ENTER] button to execute the Job.

“Completed” will appear when the Job is done.

### NOTICE

In some Jobs, the operation overwrites any data previously existing in the destination memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

- 6 Press the [EXIT] button twice to go back to the Pattern Play display.

**NOTE** If there is no data in the specified range, “No Data” will appear on the display and the Job cannot be executed.

**NOTE** If you make a mistake or want to compare the sound of the data before and after executing a Job, press the [F1] button to use the Undo/Redo function.

### NOTICE

Even if a Job operation has been completed, selecting a different Pattern or turning the power off without storing will erase the Pattern data. Make sure to store the Pattern data to internal memory by pressing the [STORE] button before selecting a different Pattern or turning the power off.

**NOTE** Some of the Jobs which enable you to copy the Sample Voice from the source to the destination execute the actual copy operation only when the Bank Select and Program Change events which specify the Sample Voice are recorded in the source Track.

## [F1] Undo/Redo

This is the same as in the Song Job mode. See page 154.

## [F2] Note Jobs

The Note Jobs in the Pattern mode are basically same as in the Song Job mode. However, unlike in the Song Job mode, Pattern Note Jobs are applied to the Phrases (001 – 256) and a selected range in the Phrase (measure : beat : clock).

## [F3] Event Jobs

The Event Jobs in the Pattern mode are basically same as in the Song Job mode. However, unlike in the Song Job mode, Pattern Event Jobs are applied to the Phrases (001 – 256) and a selected range in the Phrase (measure : beat : clock).

**NOTE** In “03: Erase Event Job,” “Tempo Change,” “Scene Memory,” or “Track Mute” cannot be selected as Event Types, unlike in the Song Erase Event Job.

**NOTE** In “05: Create Continuous Data Job” and “07: Modify Control Data Job,” “Tempo Change” cannot be selected as Event Types, unlike in the Song Job mode.

## [F4] Phrase Jobs

### 01: Copy Phrase

This Job copies a selected Phrase to the designated destination Phrase. Also the Sample Voices used in the selected Phrase can be copied. This is useful if you are creating a Pattern and wish to use the Phrase data from another Pattern.



- ❶ Source Phrase
- ❷ Destination Phrase

Determines the Pattern number (01 – 64) and Phrase number (001 – 256) of the source and destination respectively.

### ❸ Copy Sample Voice

When this box is checkmarked, Sample Voices assigned to the source Phrase are copied to the destination Phrase as Sample Voices, and are assigned to the corresponding tracks in the selected Pattern. Make sure to set this parameter to on when copying the Phrase using the Sample Voice. When there is no memory available in the destination Pattern for Sample Voice data, an alert message will appear on the display and the Sample Voice data will not be copied. If this occurs, use Sample Job 02: Delete to delete any unused samples, then try again.

#### NOTICE

- Any previous data in the copy destination will be overwritten.
- Undo/Redo cannot be used to undo/redo a Sample Voice copy operation.

## 02: Exchange Phrase

This Job exchanges or “swaps” the contents of two specified Phrases. This is useful if you wish to exchange two Phrases each of which is assigned to a different Pattern.



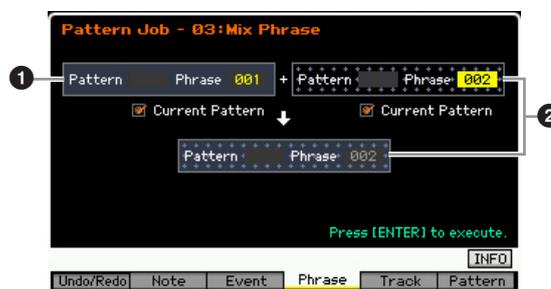
- ❶ Phrase to be exchanged
- ❷ Phrase to be exchanged

Determines the Pattern number (01 – 64) and Phrase number (001 – 256) to be exchanged respectively.

**NOTE** If this Job is applied to Phrases which use Sample Voices, the Sample Voices will not be exchanged.

## 03: Mix Phrase

This Job mixes all data from two selected user Phrases—❶ and ❷—and places the result in Phrase ❷. This is useful if you wish to create a new Phrase by mixing two Phrases played, for example, by different drum instruments.



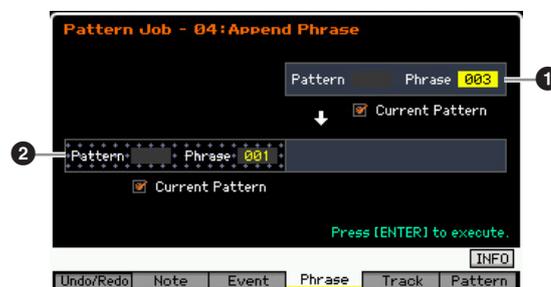
- ❶ Original Phrase
- ❷ Original Phrase and Destination Phrase

Determines the Pattern numbers (01 – 64) and Phrase numbers (001 – 256) to be mixed respectively. Executing the Job mixes all data from two selected user Phrases—❶ and ❷—and places the result in Phrase ❷.

**NOTE** Keep in mind that applying this Job to Phrases with Sample Voices does not mix the Sample Voices.

## 04: Append Phrase

This Job appends one Phrase (❶) to the end of another (❷) to create one longer Phrase.



- ❶ Original Phrase
- ❷ Original Phrase and Destination Phrase

Determines the Pattern numbers (01 – 64) and Phrase numbers (001 – 256) to be appended respectively. Executing the Job appends one Phrase (❶) to the end of the Phrase (❷).

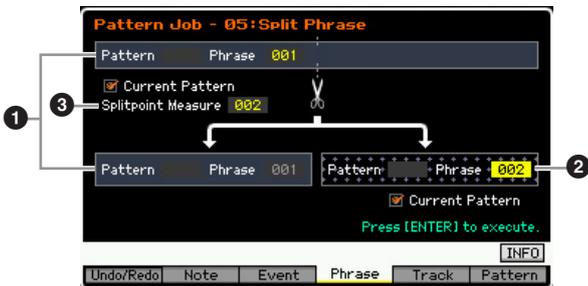
**NOTE** If this Job is applied to Phrases which use Sample Voices, the Sample Voices of the source Phrase (❶) will not be appended.

**NOTE** If the Pattern length becomes greater than 256 measures as a result of the this Job, an error message will be displayed and the Job will be aborted.

Voice mode
Performance mode
Sampling mode 1
Song mode
Pattern mode
Mixing mode
Sampling mode 2
Master mode
Utility mode
File mode
Reference

## 05: Split Phrase

This Job splits a selected Phrase (❶) into two separate Phrases (❶ and ❷). Phrase ❶ is divided at the Split Point (❸).



### ❶ Original Phrase

Determines the original Phrase to be split by selecting the Pattern number (01 – 64) and Phrase number (001 – 256). Executing the Job leaves the part before the Split Point (❸) of the original Phrase.

### ❷ Destination Phrase

Determines the split destination Phrase by selecting the Pattern number (off, 01 – 64) and Phrase number (off, 001 – 256). Executing the Job copies the part after the Split Point to this split destination Phrase. When either the Pattern or the Phrase is set to “off,” the part after the Split Point of the original Phrase will be deleted.

#### NOTICE

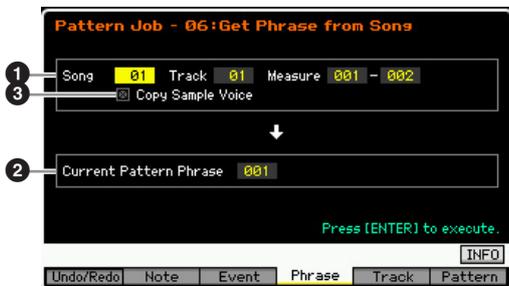
This Job overwrites any data already existing in the split destination Phrase (❷).

### ❸ Split Point Measure

Determines the measure (002 – 256) at which the Phrase will be split.

## 06: Get Phrase from Song

This Job copies a segment of sequence-track data from a Song into the designated destination Phrase. This Job is useful when you’ve found a drum or bass pattern in a Song and want to use it in the Pattern.



### ❶ Source Song, Track and Measures

Determines the source Song number (01 – 64), Track number (01 – 16) and measure range (001 – 999) of the Song. If the specified measure range is more than 257, an alert message will appear on the display and the Job will

be aborted. If this occurs, set the Measure again so that this range is within 256 measures.

### ❷ Destination Phrase

Determines the destination Phrase by selecting the Phrase number (001 – 256). The destination Phrase can be specified among the Phrases of the current Pattern.

#### NOTICE

Any previous data in the copy destination will be overwritten.

### ❸ Copy Sample Voice

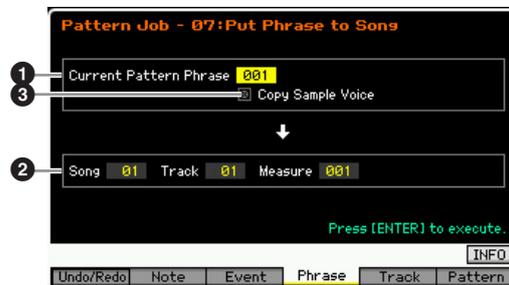
When the Copy Sample box is checkmarked, Sample Voices used in the source data are copied to the destination Phrase as Sample Voices, and are assigned to the destination Pattern track. Make sure to set this parameter to on when copying a track using a Sample Voice. When there is no memory available in the destination Pattern (current Pattern) for Sample Voice data, an alert message will appear on the display and the Sample Voice data will not be copied. If this occurs, use Sample Job 02: Delete to delete any unused samples, then try again.

#### NOTICE

Undo/Redo cannot be used to undo/redo a Sample Voice copy operation.

## 07: Put Phrase to Song

This Job copies a selected user Phrase into a specified area of a selected Song.



### ❶ Source Phrase

Determines the Phrase number (001 – 256) to be copied.

### ❷ Destination Song, Track and Measure

Determines the destination Song number (01 – 64), Track number (01 – 16) and measure range (001 – 999).

#### NOTICE

The copy operation overwrites any data previously existing on the destination track and measure range.

### ❸ Copy Sample Voice

When the Copy Sample box is checkmarked, Sample Voices used by the source Phrase are copied to the destination Song as Sample Voices, and are assigned to the destination Song track. Make sure to set this parameter to on when copying a Phrase using a Sample Voice. When there is no memory available in the destination Song for Sample Voice data, an alert message will appear on the

display and the Sample Voice data will not be copied. If this occurs, use Sample Job 02: Delete to delete any unused samples, then try again.

**NOTICE**

**Undo/Redo cannot be used to undo/redo a Sample Voice copy operation.**

## 08: Clear Phrase

This Job deletes all data from the selected Phrase.



**1 Phrase**

Determines the Phrase number (001 – 256) to be cleared.

**2 Clear Sample Voice**

When the checkbox is checked, the Sample Voice used in the Phrase specified above will also be cleared.

**NOTICE**

**Undo/Redo (page 154) cannot be used to undo/redo a Delete sample operation.**

## [F5] Track Jobs

### 01: Copy Track

This Job copies all data of the selected type from a specified source track to a specified destination track. This is useful if you are creating a Pattern and wish to use the track data from another Pattern.



**1 Source Track**

**2 Destination Track**

Determines the Pattern number (01 – 64), Section (A – P) and Track (01 – 16) of source and destination respectively.

**NOTICE**

**Any previous data in the copy destination will be overwritten.**

**3 Data Type to be copied**

Determines the type(s) of data to be copied.

**Settings:** Sequencer Event (all events in the track), Play Effect, Mix Part Parameter (all Mixing Part parameters), Sample Voice

**NOTE** When there is no memory available in the destination Pattern for Sample Voice data, an alert message will appear on the display and the Sample Voice data will not be copied even though the check box of the Sample Voice is marked. If this occurs, use Sample Job 02: Delete to delete any unused samples, then try again.

**NOTICE**

**Undo/Redo (page 154) cannot be used to undo/redo a Delete sample operation.**

### 02: Exchange Track

This is the same as in the Song Job mode. See page 163.

### 03: Mix Track

This is the same as in the Song Job mode. See page 163.

### 04: Clear Track

This Job deletes all data of the selected type from the selected track.



**1 Tracks**

Determines the track to be cleared by specifying the Section (A – P, all) and Track (01 – 16, all).

**2 Data type to be cleared**

Determines the type(s) of data to be cleared. Select the desired type by checkmarking the appropriate box.

**Settings:** Sequencer Event (all events in the track), Play Effect, Mix Part Parameter (all Mixing Part parameters), Sample Voice

**NOTICE**

**Undo/Redo cannot be used to undo/redo a Clear operation for tracks that contain sample data.**

**NOTE** The Waveform on SDRAM cannot be deleted via this Job even if the Sample Voice box is checked. If you want to actually delete the Waveform assigned to the Sample Voice used in the specified Song, use the Delete Job (page 131) in the Sampling Job mode.

File mode  
Utility mode  
Master mode  
Sampling mode 2  
Mixing mode  
Pattern mode  
Song mode  
Performance mode  
Voice mode  
Reference

### 05: Normalize Play Effect

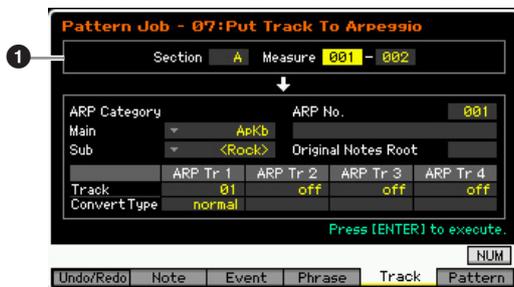
This is the same as in the Song Job mode. See page 163.

### 06: Divide Drum Track

This is the same as in the Song Job mode. See page 163.

### 07: Put Track to Arpeggio

This Job copies data in the specified measures of a track for creating Arpeggio data. Up to 16 unique note numbers can be recorded to the Arpeggio track. If more than 16 different note numbers have been recorded to the MIDI sequence data, the Convert operation reduces the notes in excess of the limit. Because of this, be careful to record only up to 16 different notes when you create an Arpeggio, especially when using all four tracks.



#### 1 Range

Determines the range which will be converted to the arpeggio data by specifying the Section (A – P) and Measure (001 – 256).

Other parameters are the same as in the Song Job mode. See page 164.

## [F6] Pattern Jobs

### 01: Copy Pattern

This Job copies all data from a selected source Pattern to a selected destination Pattern.



#### 1 Source Pattern

#### 2 Destination Pattern

Determines the source and destination Pattern by selecting the Pattern number (01 – 64) and Section (A – P, all). If you set the source Section to “all,” the destination Section is also set to “all” automatically, with the result that all source Pattern data is copied to the destination.

#### 3 Copy Pattern Chain

When this box is checkmarked, Pattern Chain data as well as Pattern data will be copied.

### 02: Append Pattern

This Job appends one Pattern (1) to the end of another (2) to create one longer Pattern. Actually, the Phrases making up the source Pattern (1) will be appended to the end of the Phrases making up the destination Pattern (2). This Job is useful if you wish to connect different Patterns together.



#### 1 Original Pattern

#### 2 Original Pattern and Destination Pattern

Determines the two Patterns to be connected by selecting the Pattern numbers (01 – 64) and Sections (A – P) respectively. Executing the Job appends one Pattern (1) to the end of the other Pattern (2). The result of this Job will be overwritten to the destination Pattern (2).

### 3 Keep Original Phrase

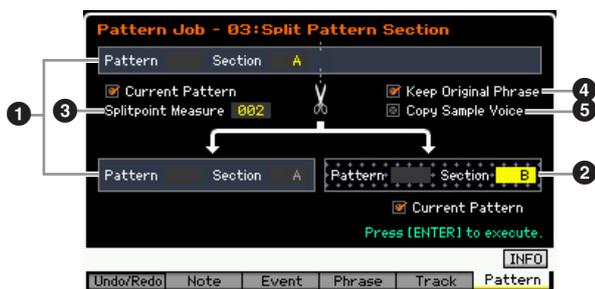
When this box is checkmarked, the original destination Pattern data is retained in memory, along with the new appended Pattern data. When the Keep Original Phrase checkbox is checked, this Job requires twice the number of empty user Phrases as the number of tracks containing data in which to store the appended Phrase data. If the required space is not available, an alert message will appear and the Job will be aborted. If this occurs use the Clear Phrase Job to delete unused Phrases then try again. If the box is not checkmarked, the original destination Pattern is erased and replaced with the newly created Phrases.

**NOTE** If this Job is applied to Patterns which use Sample Voices, the Sample Voices of the source Phrase (1) will not be appended.

**NOTE** If the Pattern length becomes greater than 256 measures as a result of this Job, an error message will be displayed and the Job will be aborted.

## 03: Split Pattern

This Job splits a selected Pattern (1) into two separate Patterns (1 and 2). The Pattern 1 is divided at the Split Point (3). Actually, the Phrases making up the source Pattern (1) will be divided and the divided Phrases after the Split Point will be assigned to the tracks of the destination Pattern.



### 1 Original Pattern

Determines the original Pattern to be split by selecting the Pattern number (01 – 64) and Section (A – P). Executing the Job leaves the part before the Split Point in the original Phrase.

### 2 Destination Pattern

Determines the split destination Pattern by selecting the Pattern number (01 – 64) and Section (off, A – P). Executing the Job moves the part after the Split Point to this split destination Pattern. When either of the Pattern number or Section is set to “off,” the part after the Split Point (3) of the original pattern (1) will be deleted.

#### NOTICE

This Job overwrites any data already existing in the split destination Pattern (2).

### 3 Splitpoint Measure

Specifies the measure at which the Pattern will be split.

**Settings:** 002 – 256

### 4 Keep Original Phrase

When this box is checkmarked, the Phrase of the original Pattern is retained in memory and the results of the Split Job are written to empty Phrases. When the Keep Original Phrase checkbox is checked, this Job requires twice the number of empty user Phrases as the number of tracks containing data in which to store the appended Phrase data. If the required space is not available, an alert message will appear and the Job will be aborted. If this occurs, use the Clear Phrase Job to delete unused Phrases and try again.

When this box is not checkmarked, the Phrases making up the original Pattern are erased and replaced with the newly created Phrases.

### 5 Copy Sample Voice

When this box is checkmarked, Sample Voices (if included in the original Pattern) are copied to the destination Pattern.

## 04: Clear Pattern

This Job clears specified Pattern. You can also clear only the specified Section of the selected Pattern.



### 1 Pattern (Pattern and Section) to be cleared

Determines the Pattern to be cleared. When the Pattern is set to “all,” all the Pattern data will be cleared. When the Section is set to “all,” all data from the selected Pattern will be cleared.

### 2 Clear Pattern Chain

When the checkbox is checked, the Pattern Chain data will also be cleared. When the checkbox is not checked, the Pattern Chain data will not be cleared.

**NOTE** The Waveform on SDRAM cannot be deleted via this Job even if the Sample Voice is used in the specified Section. If you want to actually delete the Waveform assigned to the Sample Voice used in the specified Section, use the Delete Job (page 135) in the Sampling Job mode.

Reference

- Voice mode
- Performance mode
- Sampling mode 1
- Song mode
- Pattern mode
- Mixing mode
- Sampling mode 2
- Master mode
- Utility mode
- File mode

# Multi-timbral Tone Generator Settings for Song/Pattern Playback (Mixing mode)

The setting of the tone generator block for Song/Pattern playback is referred to as Mixing. The Mixing mode lets you change the Voice and effect settings for each Part.

To enter the Mixing mode, press the [MIXING] button in the Song mode or Pattern mode.

**NOTE** The Mixing mode cannot be called up from the Voice mode, Performance mode, or Master mode.

## The Mixing mode structure

This section explains in detail about the Mixing mode and what you can do in the Mixing mode.

### About Mixing

In the Song/Pattern mode, the internal tone generator block functions as the multi-timbral tone generator in order to receive and handle MIDI sequence data consisting of multiple channels. The settings for the multi-timbral tone generator are collectively referred to as a "Mixing." A Mixing program is provided for each Song or Pattern. Selecting a different Song/Pattern calls up the different Mixing program.

### Common Edit and Part Edit

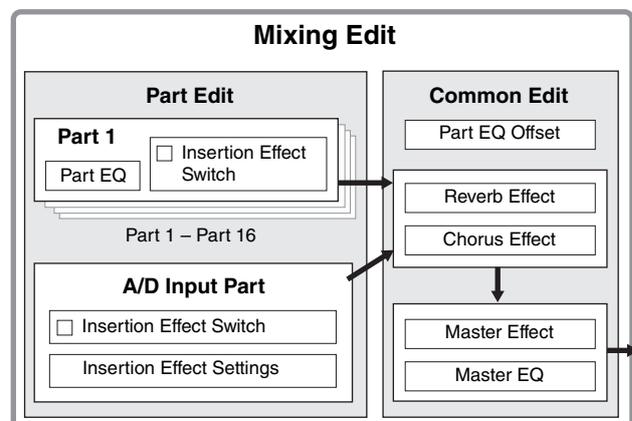
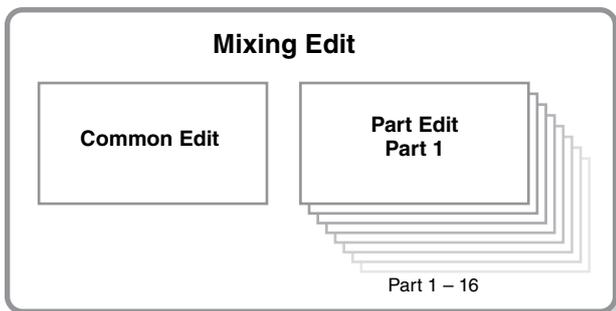
The Mixing Edit mode consists of two sub modes: Common Edit and Part Edit. Common Edit lets you edit the global settings common to all Parts, such as the Master Effect, the Master EQ, and the Controller settings. Part Edit lets you adjust various parameters for each of 16 Parts according to the corresponding Song/Pattern track.

### Effect and EQ structure in the Mixing mode

In the Mixing mode, two EQ blocks and three Effect blocks are available.

The two EQ blocks in the Mixing mode are Part EQ and Master EQ. Part EQ is applied to each of the Mixing Parts and can be set in the EQ display (page 195) of Part Edit. In addition, the Part EQ parameters can be adjusted at the same time for all parts in the Part EQ display (page 192) of Common Edit. On the other hand, Master EQ is applied to the overall sound (all the Mixing Parts) and can be set in the Master EQ display (page 193) of Common Edit.

The Effect blocks in the Mixing mode are Reverb, Chorus, and Master Effect. Reverb and Chorus are applied to the overall sound and the related parameters can be set in the Reverb/Chorus display (page 193) of Common Edit. The depth (send level) of the Reverb/Chorus can be set for each Part in the Connect display (page 193) of Part Edit. On the other hand, Master Effect is applied to the overall sound (all the Mixing Parts) and can be set in the Master Effect display (page 193) of Common Edit.



## Insertion Effect in the Mixing mode

In addition to the three Effect blocks above, special Insertion Effects are available in the Mixing mode. Keep in mind that Insertion Effects cannot be applied to all 16 parts simultaneously. The MOTIF XF features eight Insertion Effects, allowing you to independently process up to eight Parts from among the 1 – 16 parts and the A/D Input part. You can specify the parts to which the Insertion Effect is applied by setting the Insertion Effect Switch parameter in the 1 – 16 display (page 190) and the Audio Part display (page 191) of the Mixing Play mode.

The most common use for Insertion Effects is in applying compression or dynamics processing to an individual Part, or applying a special effect that is only to be used on one Part, such as distortion or rotary speaker.

The Insertion Effect parameters can be set in the following displays.

### Part 1 – 16:

The Insertion Effect parameters for each of the Parts 1 – 16 can be set by editing the Voice assigned to each Part in the Connect display and Insertion A/B display of Mixing Voice Edit (page 198). The edited voice can be stored (page 199) as a Mixing Voice or User Voice.

### A/D Input Part:

The Insertion Effect parameters for the A/D Input Part can be set in the Insertion A/B display (page 193) of Common Edit.

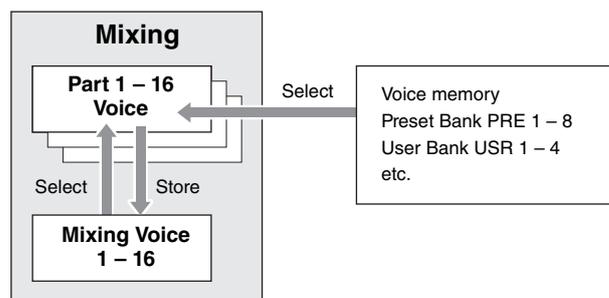
## Mixing Voices

Up to 16 Normal Voices can be stored for each Song/Pattern Mixing. This type of Voice is called a Mixing Voice.

Normally, the Voice stored in the Voice mode is assigned to each Mixing Part. In this method, the sound of the Song/Pattern you created may be changed unexpectedly if you edit or delete the Voice used for the Song/Pattern Mixing. Mixing Voices are provided to prevent these accidental sound changes. To use this feature, call up a Voice from User Banks 1 – 4, store the selected Voice to the Mixing Voice Bank, assign it to the desired Part, then edit the Mixing as needed. In addition, make sure to store the Voice as a Mixing Voice after editing the Voice in the Mixing mode.

Up to 16 Mixing Voices are provided for each Mixing program, or in other words, for each Song/Pattern. Selecting a different Song/Pattern calls up a different Mixing belonging to the new selected Song/Pattern.

If you wish to use a Mixing Voice of a certain Song/Pattern for another Song/Pattern, execute the copy operation (page 200) in the Mixing Voice Job mode.



Note that up to 256 Mixing Voices can be stored for all Songs and Patterns. Accordingly, the Mixing Voice memory will become full and additional Voices cannot be stored if you've stored 16 different Voices for 16 different Songs. If such a situation occurs, use the Delete Job (page 200) to delete any unnecessary Mixing Voices in the Mixing Voice Job mode.

**NOTE** You can confirm the amount of currently unused (available) memory via the Mixing Voice Information window (page 199).

## Mixing Setup Procedure

- 1 In the Song or Pattern mode, select a Song or Pattern to be edited.**
- 2 Press the [MIXING] button to enter the Mixing mode.**  
The Part 1 – 16 display (page 190) of the Mixing Play appears.
- 3 Select a Voice and set other parameters such as volume and pan for each Part from the Part 1 – 16 display or the Audio Part display.**
- 4 Set the parameters common to all Parts or those exclusive for each Part.**

If you wish to edit parameters common to all parts such as Master Effect, Master EQ and Controller settings, press the [EDIT] button from the Mixing Play display, then press the [COMMON EDIT] button to enter the Common Edit display (page 192).

If you wish to edit more detailed Mixing Part parameters, enter the Part Edit mode (page 194) by pressing the [EDIT] button, then press the desired one of the Number buttons [1] – [16]. If you wish to edit parameters for the Audio Part, press the [EDIT] button from the Mixing Play mode and press the [COMMON EDIT] button then [F4] button to call up the Audio In display (page 193).

## 5 Edit the Voice assigned to the Part as desired.

If you wish to edit a Voice assigned to each Part, press the [F6] button in the Mixing Play display to call up the Mixing Voice Edit display (page 198).

The Mixing Voice Common Edit mode (page 200) can be called up by pressing the [COMMON EDIT] button. The Mixing Voice Element Edit mode (page 200) can be called up by pressing one of the Number buttons [1] – [8].

## 6 Store the edited voice as a Mixing Voice as desired.

In the Mixing Voice Edit mode, press the [STORE] button to call up the Mixing Voice Store window (page 199).

## 7 Store the edited Mixing program to the Song/Pattern.

In the Song Play mode, press the [STORE] button to call up the Song Store window or Pattern Store window. For detailed instructions on storing, see page 144.

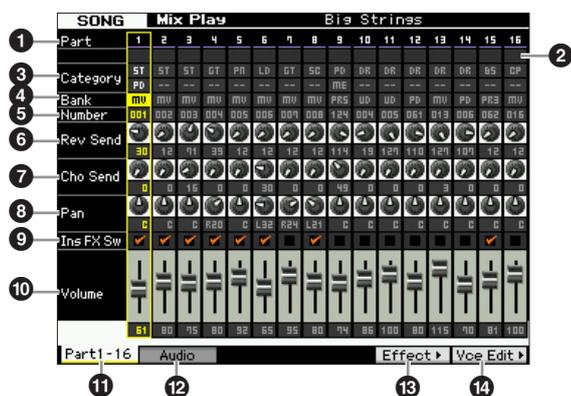
## 8 Press the [SONG] or [PATTERN] button to exit from the Mixing mode to the previous mode.

# Mixing Play mode

The Mixing Play display will appear when pressing the [MIXING] button in the Song mode or Pattern mode. Here you can edit the Mixing parameters which are important for creating a Song/Pattern.

## Part Settings on the Mixer display— [F1] Part1 – 16

Here you can edit the main parameters for each Mixing Part. The basic parameters for creating a Song are gathered on this display from the Voice display (page 194) and the Output display (page 194) in the Mixing Part Edit mode. The settings made here are automatically applied to the corresponding parameters in the displays in the Mixing Part Edit mode, and vice versa.



### 1 Part (Indication only)

Indicates the Part numbers. When the [TRACK] lamp is turned on, the Part can be selected via the Number buttons [1] – [16].

### 2 Mute/Solo/Edit (Indication only)

Indicates the status of each Part. When the [MUTE] lamp is turned on, the Mute on/off status for each Part can be switched via the Number buttons [1] – [16]. When the [SOLO] lamp is turned on, the Solo Part can be selected via the Number buttons [1] – [16].

**Settings:** (Mute), (Solo), (Edit Indicator)

### Edit Indicator

Indicates that the Mixing Voice for the Part is modified but not stored yet.

### 3 Category (Indication only)

Indicates the two main categories of the current Voice. When the [CATEGORY SEARCH] lamp is turned on, you can select the desired Voice by using the Category Search function. The name of the selected Voice is shown at the top right of the display.

### 4 Bank

### 5 Number

These determine the selected Voice. Press the [PROGRAM] button (the lamp lights), then the desired Voice by using the [PRE 1] – [USER DR] buttons, [A] – [H] buttons and the [1] – [16] buttons. The name of the selected Voice is shown at the right top of the display.

### Settings:

**Number:** 1 – 128

**Bank:** PR1 – 8 (Preset 1 – 8), US1 – 4 (User 1 – 4), GM, GD (GM Drum), PD (Preset Drum), UD (User Drum), SP (Sample Voice), MV (Mixing Voice)

### 6 Rev Send (Reverb Send)

Adjusts the Reverb send level for each Part. The higher the value, more pronounced the Reverb effect.

**Settings:** 0 – 127

### 7 Cho Send (Chorus Send)

Adjusts the Chorus send level for each Part. The higher the value, more pronounced the Chorus effect.

**Settings:** 0 – 127

### 8 Pan

Determines the position in the stereo field for each Part.

**Settings:** L63 (far left) – C (center) – R63 (far right)

**9 Ins FX Sw (Insertion Effect Switch)**

Determines the Parts available for the Insertion Effect. When this switch is set to on, the Insertion Effect of the Voice assigned to the Part enabled. Make sure that this parameter is set to on for any Parts/Voices to which you need to apply Insertion Effects.

The MOTIF XF features eight Insertion effect systems, letting you set this parameter to on for up to eight Parts. If eight Parts are already turned on, the parameter cannot be turned on for additional Parts. In this case, the switch for another Part must be turned off before you can turn the switch for the desired Part on. Please note that the Insertion Effects are available simultaneously for up to eight Parts including the A/D Input Part.

**Settings:**  (on),  (off)

**10 Volume**

Determines the output level of the Part.

**Settings:** 0 – 127

**11 [F1] Part 1 – 16**

Calls up this display from the Audio Mixer display.

**12 [F2] Audio (Audio Part)**

Calls up the Audio Part display for setting the Audio Input.

**13 [F5] Effect**

Calls up the Effect display (page 193) in the Common Edit mode.

**14 [F6] Vce Edit (Mixing Voice Edit)**

Enters the Mixing Voice Edit mode, letting you edit the Voice assigned to the current Part. If the Drum Voice or Sample Voice is assigned to the current Part, this button does not appear and the Mixing Voice is not available.

**Audio Input settings—[F2] Audio**

From this display you can set parameters related to audio input from the [A/D INPUT] connector and the IEEE1394 connector (available when the optional FW16E is installed). The basic parameters for creating a Song are gathered on this display from the Audio In display (page 193) in the Mixing Common Edit mode. The settings made here will be applied to the same parameters on the displays in the Mixing Common Edit mode, and vice versa.

**1 Part** (Indication only)

Indicates the Part numbers.

**AD (A/D Input Part)**

Lets you set parameters related to audio input from the A/D INPUT connector.

**FW (FireWire)**

Lets you set parameters related to audio input from the IEEE1394 connector (available when the optional FW16E is installed). The audio signal here is transmitted from the computer via FW Ports 3 and 4.

The settings made here are automatically applied to the corresponding parameters in the Part 1 – 16 display (page 190).

**2 Rev Send (Reverb Send)****3 Cho Send (Chorus Send)****4 Pan****5 Ins FX Sw (Insertion Effect Switch)\*****6 Volume**

\* Available for the A/D Input Part only

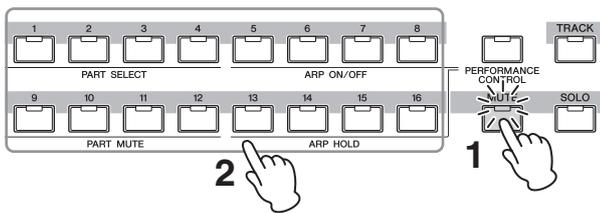
# Mixing Edit

The Mixing Edit mode lets you control typical mixer settings such as volume balance, pan position and effects, allowing you to fine tune the Song/Pattern data. Mixing Edit consists of Part Edit and Common Edit.

## Useful functions for editing Mixing

### Turning specific Parts on/off (Mute function)

You can turn individual Parts on/off by using the Mute function.



#### 1 Press the [MUTE] button.

The [MUTE] lamp lights, indicating that each Part can be turned on/off.

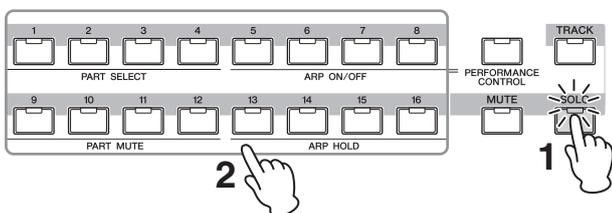
#### 2 Press any of the Number buttons [1] – [16].

The lamp of the pressed button will be turned off and the corresponding Part will be muted.

Press the same button again to turn the lamp on and disengage the mute function for that Part. You can turn multiple Parts on/off by pressing their buttons.

### Soloing a specific Part

The Solo function is the opposite of Mute, and lets you instantly solo a specific Part and mute all others.



#### 1 Press the [SOLO] button.

The [SOLO] lamp lights, indicating that the specific Part can be soloed.

#### 2 Press any of the Number buttons [1] – [16].

The lamp of the pressed button will be turned on and only the corresponding Part will be sounded. Press any other number button to change the solo Part.

**NOTE** To exit from the Mute and Solo conditions, press the [TRACK] or [PERFORMANCE CONTROL] button.

## The [E] Indicator

When changing the value of the parameter in the Mixing Play or Edit mode, the [E] (Edit Indicator) will appear on the top right corner of the LCD display. This gives a quick confirmation that the current Mixing has been modified but not yet stored. To store the current edited status, follow the instructions on page 54.



## Compare function

The Compare function lets you switch between the just-edited Mixing and its original, unedited condition, allowing you to hear how your edits affect the sound. For instructions on using Compare, refer to the same function in the Voice mode on page 54.

## Storing the created Mixing

The created mixing setup can be stored as part of the data of a Song or Pattern. For instructions on storing a Song/Pattern, see pages 144 and 177.

## Common Edit parameters

[SONG]/[PATTERN] → [MIXING] → [EDIT] → [COMMON EDIT]

The Common Edit mode lets you edit the parameters common to all Mixing Parts.

### Controller settings—[F1] General

Determines the function for the Knobs and ASSIGNABLE FUNCTION buttons for each Song/Pattern.

The function is the same as the one in the Other display (page 104) in the Performance Common Edit mode.

## Master Effect and Master EQ settings— [F2] MasterFX (Master Effect)

### [SF2] MasterFX (Master Effect)

This display lets you set the type and parameters of the Master Effect.

The function is the same as the one in the Master Effect display (page 104) in the Performance Common Edit mode.

### [SF3] MasterEQ

From this display you can apply five-band equalization to all Parts of the selected Mixing.

The function is the same as the one in the Master EQ display (page 105) in the Performance Common Edit mode.

## Audio Input Part Settings—[F4] Audio In

You can set parameters related to audio input from the A/D INPUT connector and the IEEE1394 connector.

The FW settings are available only when the optional FW16E is installed.

### [SF1] Output

From this display you can set the Send level of the Audio Input Part signal sent to the Reverb/Chorus effect and the output jack assignment for the Audio Input Part.

The function of this display is the same as the one in the Output display (page 106) in the Performance Common Edit mode.

### [SF2] Connect

Determines the effect routing for Insertion Effects A and B. The setting changes are shown on the diagram in the display, giving you a clear picture of how the signal is routed.

The function of this display is the same as the one in the Insertion Effect Connection display (page 106) in the Performance Common Edit mode.

### [SF3] Ins A (Insertion Effect A)

### [SF4] Ins B (Insertion Effect B)

From this display, you can also set the type and its parameters of the Insertion Effect.

The function of this display is the same as the one in the Insertion Effect A/Insertion Effect B display (page 107) in the Performance Common Edit mode.

## Effect Settings—[F5] Effect

From the following displays, you can set the Effect connection and values of other parameters. For details about the Effect structure in the Mixing mode, see page 24.

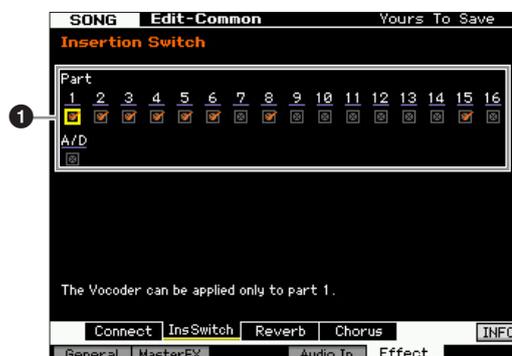
### [SF1] Connect

From this display, you can set the Return level of the Reverb/Chorus effect, Effect Pan, and Chorus to Send Level.

The function of this display is the same as the one in the Connection display (page 107) in the Performance Common Edit mode.

### [SF2] Ins Switch (Insertion Effect Switch)

In this display, you can select which Parts (from Mixing Parts 1 – 16 and the Audio Input Part) will be assigned to the eight Insertion Effects.



#### ① Part 1 – 16, A/D

Determines the Parts available for the Insertion Effect. When this switch is set to on, the Insertion Effect of the Voice assigned to the Part is enabled. Make sure that this parameter is set to on for any Parts/Voices to which you need to apply Insertion Effects.

The MOTIF XF features eight Insertion effect systems, letting you set this parameter to on for up to eight Parts. If eight Parts are already turned on, the parameter cannot be turned on for additional Parts. In this case, the switch for another Part must be turned off before you can turn the switch for the desired Part on.

**NOTE** For the Audio Input Part, the Insertion Effect type/parameter can be set on the Insertion A/B display (page 193) in the Mixing Common Edit mode. For Parts 1 – 16, the Insertion Effect type/parameter settings cannot be set in the Mixing Edit mode because their settings are included in the Voice assigned to each Part. If you wish to edit the Insertion Effect settings for each Part, enter the Mixing Voice Edit mode, then edit the Effect settings for the Voice.

### [SF3] Reverb [SF4] Chorus

From the Type column on these displays, you can select the Reverb/Chorus type. From the Preset column, you can select one of the templates that call up the pre-programmed settings of various parameters of the selected

Reverb/Chorus type. From these displays, you can also set each parameter of the selected Effect type individually and manually.

The function of these displays is the same as those of the Reverb display and Chorus display (page 108) in the Performance Common Edit mode.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

## Part Edit parameters

[SONG]/[PATTERN] → [MIXING] → [EDIT] → [1] – [16] Part selection

In the Part Edit mode, you can edit the parameters of the individual Parts such as Voice, Arpeggio, EG and EQ settings.

### Selected Part display/Four-Part display

Just as with the Performance Part Edit mode, you can use two types of display in the Mixing Part Edit mode. One type of display lets you edit parameters for the currently selected Part and the other type of display lets you view parameters for four Parts. You can switch between these two types by pressing the [SF5] button. Note that the display for four Parts is not available for the [F2] ARP Main and the [F3] ARP Other displays.

### Selecting a Part to be edited

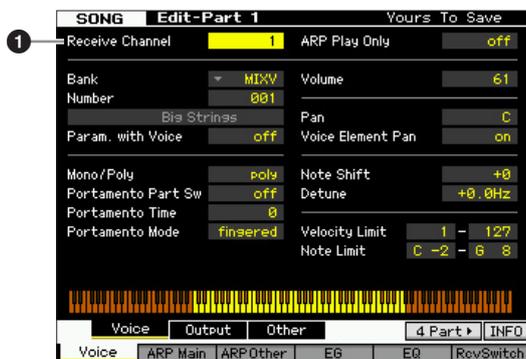
Press one of the [1] – [16] buttons to select a Part to be edited.

**NOTE** For details about useful functions such as Mute and Solo, see page 192.

## Part Basic Settings—[F1] Voice

### [SF1] Voice

This display lets you specify the MIDI receive channel for the current Part as well as the Voice. The other parameters except for Receive Channel (1) are the same as those in the Voice display (page 109) in the Performance Part Edit mode.



### 1 Receive Channel

Determines the MIDI receive channel for the selected Part. Since MIDI data may be coming from many channels at once, you should set this to match the particular channel over which the desired controlling data is being sent

**Settings:** 01 – 16, off

### [SF2] Output

From this display, you can set the Reverb/Chorus depth and the Output jack assignment for each Part. The function of this display is the same as the one in the Output display (page 110) in the Performance Part Edit mode.

### [SF3] Other

From this display, you can set parameters related to pitch bend and velocity. The function of this display is the same as the one in the Other display (page 111) in the Performance Part Edit mode.

## Arpeggio Basic Settings—[F2] ARP Main (Arpeggio Main)

This display determines the basic settings of the Arpeggio. The settings of parameters shown at the bottom of the display can be registered to the [SF1] – [SF5] buttons. The function is the same as the one in the Arpeggio Main display (page 112) in the Performance Part Edit mode.

## Changing rhythmic feel of the Arpeggio—[F3] ARP Other (Arpeggio Other)

By changing the timing and velocity of the notes, you can change the rhythmic “feel” of the Arpeggio playback. The function of this display is the same as the one in the Arpeggio Other display (page 114) in the Performance Part Edit mode.

## EG Settings—[F4] EG (Envelope Generator)

These settings let you control the sound transition from the moment a key is pressed to the moment at which it is released. You can also adjust the tone brilliance by setting the Cutoff Frequency and Resonance. The function of this display is the same as the one in the EG display page 115) in the Performance Part Edit mode.

## Equalizer (EQ) Settings—[F5] EQ (Equalizer)

You can apply 3-band parametric EQ to each Part to adjust the sound.

The function is the same as the one in the EQ display (page 116) in the Performance Part Edit mode.

## MIDI Receive Settings—[F6] RcvSwitch (Receive Switch)

From this display you can set how each individual Part responds to various MIDI data, such as Control Change and Program Change messages. When the relevant parameter is set to “on,” the corresponding Part responds to the appropriate MIDI data.

The function is the same as the one in the Receive Switch display (page 116) in the Performance Part Edit mode. In addition to the parameters which can be set in the Performance Part Edit mode, the Program Change and Bank Select can be set in this display of the Mixing mode.

## Mixing Job—Convenient functions

The Mixing Job mode features some convenient data organization and initialization tools, for use when creating Performances and archiving them. To enter the Mixing Job mode, press the [JOB] button in the Mixing mode. Press the [EXIT] button to return to the Mixing Play mode.

### Mixing Job Procedure

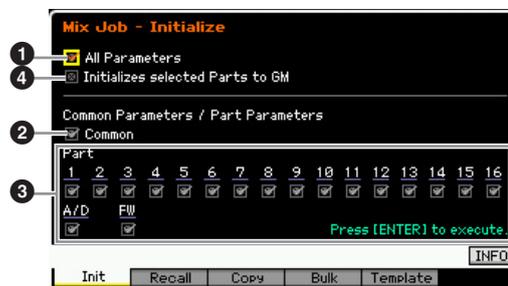
- In the Mixing mode or Mixing Edit mode, press the [JOB] button to enter the Mixing Job mode.**
- Call up the desired Mixing Job menu by pressing the appropriate button ([F1] – [F6]).**
- Set the parameters for executing the Job.**
- Press the [ENTER] button. (The display prompts you for confirmation.)**  
To cancel the Job, press the [DEC/NO] button.
- Press the [INC/YES] button to execute the Job.**  
After the Job has been completed, a “Completed” message appears and operation returns to the original display.
- Press the [MIXING] button to return to the Mixing Play mode.**

#### NOTICE

Even if you execute the Job, selecting a different Song/Pattern or turning the power off without storing will erase the Mixing data. Make sure to store the Song/Pattern data (including the Mixing) to internal memory by pressing the [STORE] button before selecting a different Song/Pattern or turning the power off.

### Initializing the Mixing—[F1] Init

This function lets you reset (initialize) all Mixing parameters to their default settings. It also allows you to selectively initialize certain parameters, such as Common settings, settings for each Part, and so on.



#### 1 All Parameters

All settings for the selected Mixing are initialized. When this is set to on, the Common parameters (2) and Part parameters (3) cannot be set.

#### 2 Common Parameters

Common parameter settings for the selected Mixing are initialized.

**NOTE** The Insertion Effect Switch is a Part parameter. Therefore, checkmark the desired boxes of Parts 1 – 16 (described below) if you wish to initialize the Insertion Effect Switch parameter settings.

**3 Part Parameters****Part 1 – 16**

Mixing Part Edit settings (page 194) for Parts which are turned on are initialized.

**A/D (A/D Input)**

This Part is input from the external audio equipment connected to the A/D INPUT jack. Parameter settings for the A/D input Part (page 193) of Common Edit are initialized.

**FW**

This Part is input from the external audio equipment connected to the IEEE1394 jack. When this is checkmarked, parameter settings for the FW Part (page 193) of Common Edit are initialized.

**NOTE** The FW setting is available only when the optional FW16E is installed.

**4 Initialize selected Parts to GM**

When this box is checked, executing the Job resets the selected Parts to standard GM tone generator settings. When the checkbox of All Parameters (1) is marked, all parameters will be reset to the GM settings. When the checkbox of All Parameters (1) is not marked, checked parameters (from Common, Part 1 – 16, AD and FW) will be reset to the GM settings.

**[F2] Recall**

If you are editing a Song/Pattern Mixing program and select a different Song/Pattern without storing the one you're editing, all the edits you've made will be erased. If this happens, you can use Recall function to restore the Mixing with your latest edits intact.

**Copying parameter settings from another Mixing, Voice and Performance—[F3] Copy****Copying parameter settings from another Mixing (Copy Part)—[SF1] Part**

This convenient operation lets you copy Common Edit and Part Edit settings of a certain Mixing to the currently edited Mixing. This is useful if you are creating a Mixing and wish to use some parameter settings from another Mixing.

**Source setup****1 In the Song mode: Song number****In the Pattern mode: Pattern number**

Determines the source Mixing by selecting the Song number (Pattern number while in the Pattern mode). The name of the selected Song or Pattern is indicated at right. To select the current Mixing as source, enter the checkmark in the Current Mix checkbox.

**2 Data type**

Determines the source data type.

**Settings:** Common, Part 1 – 16, A/D, FW

**NOTE** The Insertion Effect Switch is a Part parameter. Therefore, the Insertion Effect Switch parameter settings are copied only when selecting one of the Parts 1 – 16.

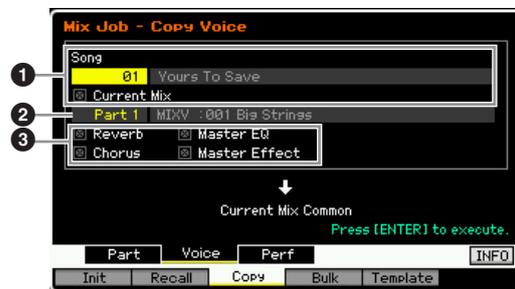
**Destination setup****3 Currently edited Part**

Determines the destination Part of the currently edited Mixing.

**Settings:** Common, Part 1 – 16, A/D, FW

**Copying the Voice Common Edit settings to the Mixing (Copy Voice)—[SF2] Voice**

This Job lets you copy the Common Edit effect settings of the Voice assigned to the specified Part to the current Mixing. This would come in handy when a certain Voice has effect settings that you want to use in your Mixing program.

**1 In the Song mode: Song number****In the Pattern mode: Pattern number, Section**

Determines the Bank and the Mixing program number to be copied. The name of the selected Song or Pattern is indicated at right. If you wish to select the current Mixing as source, enter the checkmark in the Current Mix check box.

**2 Part number**

Selects the Part (01 – 16) to which the source Voice is assigned. The name of the selected Song or Pattern is indicated at right.

**3 Data type**

Determines the source data type. By checking the appropriate box, the corresponding data settings are copied from the source Voice to the destination Mixing. The other parameter settings are not copied from the Voice to the current Mixing.

## Copying the Performance Edit settings to the Mixing Edit (Copy Performance)—[SF3] Perf

This Job lets you copy the settings of the Performance Edit to the current Mixing. This would come in handy when a certain Performance has settings that you want to use in your Mixing program.



### 1 Bank, Performance number

Determines the Bank and the Performance number to be copied. The name of the selected Performance is shown at right.

### 2 Data type

Determines whether or not the settings of the listed parameters are copied. By checking the box of the Insertion Effect Switch, the Insertion Effect Switch settings are copied from Performance Parts 1 – 4 to the Mixing Parts set as Destination Parts (3). If the boxes of the other parameters are checkmarked, the settings of the checked parameters are copied from the Performance Common mode to the Mixing Common mode. All other parameter settings in the Common Edit and Part Edit modes will be copied from the Performance to the current Mixing.

### 3 Destination Parts

Determines the four parts of the current Mixing as destination.

**Settings:** 1 – 4, 5 – 8, 9 – 12, 13 – 16

**NOTE** Regarding the MIDI Receive Channels of the Mixing Parts as destinations, channel 1 will be assigned to Parts 1 - 4, channel 5 will be assigned to Parts 5 - 8, channel 9 will be assigned to Parts 9 - 12 and channel 13 will be assigned to Parts 13 - 16.

## Transmitting the Mixing Settings to an external MIDI device (Bulk Dump)—[F4] Bulk

This function lets you send specified parameter settings for the currently edited Mixing to a computer or another MIDI device for data archiving. To execute the Bulk Dump, press the [ENTER] button.

**NOTE** The Bulk Dump data includes only the MIDI messages and does not include the Waveforms.

**NOTE** In order to execute Bulk Dump, you'll need to set the correct MIDI Device Number. For details, see page 228.

## Mixing Template—[F5] Template

### Storing/Recalling the Mixing to/from the Template—[SF1] Mix

This Job lets you store your edited Mixing program to User memory as a Mixing Template and recall it. 32 Mixing Templates can be stored. 32 Mixing Templates can be used both in the Song mode and the Pattern mode.



### 1 Template

Determines the Mixing Template to be stored or recalled. Pressing the [SF5] button to store the current Mixing while pressing the [SF4] button to recall the Mixing Template stored to User Memory.

**Settings:** 01 – 32

### 2 Mixing Template name

Enters the name of the Mixing Template. For detailed instructions on naming, see page 37.

## Copying the Performance Edit settings to a Mixing (Template Performance)—[SF2] Perf

This Job lets you copy the settings of the Performance Edit settings to the current Mixing. This would come in handy when a certain Performance has settings that you want to use in your Mixing program.



### 1 Bank, Performance number

Determines the Bank (USR 1 – 4) and the Performance number (001 – 128) to be copied. The name of the selected Performance is indicated at right.

### 2 Destination Parts

Determines the four parts of the current Mixing as destination.

**Settings:** 1 – 4, 5 – 8, 9 – 12, 13 – 16

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

**NOTE** Regarding the MIDI Receive Channels of the Mixing Parts as destinations, channels 1 – 4 will be assigned to Parts 1 – 4 respectively, channels 5 – 8 will be assigned to Parts 5 – 8 respectively, channels 9 – 12 will be assigned to Parts 9 – 12 respectively, and channels 13 – 16 will be assigned to Parts 13 – 16 respectively.

Unlike the Copy Performance Job, a different MIDI Receive channel will be assigned to each of the Parts, allowing for greater flexibility when using the created settings with a multi-timbral tone generator.

Note that the Receive Channel of the destination Mixing Part will be set to off if the Receive Channel of the source Performance Part is set to off.

## Mixing Voice Edit

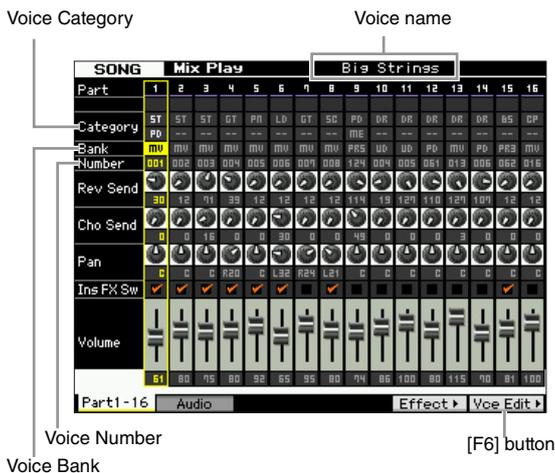
Mixing Voices are Normal Voices that have been specially edited for and saved to specific Song/Pattern Mixings. Up to 16 Mixing Voices can be stored to each Song/Pattern Mixing. In this mode, you can edit the Voices assigned to Mixing Parts 1 – 16 respectively and store them as Mixing Voices. Mixing Voice Jobs are also available, providing convenient tools for organizing your created Mixing Voices.

Press the [F6] Vce Edit button to enter the Mixing Voice Edit mode.

**NOTE** For more information about Mixing Voices, see page 189.

## Editing Mixing Voices

- 1 Press the [MIXING] button in the Song mode or Pattern mode to call up the Mixing Play display (page 190) in the Mixing mode.



- 2 Move the cursor to the Part to which the desired Voice is assigned.

The name of the selected Voice is shown at right top of the display. You can also select the Voice here. To do this, press the [PROGRAM] button (the lamp lights), then select the desired Voice by using the Bank buttons [PRE 1] – [GM], Group buttons [A] – [H] and the Number buttons [1] – [16].

- 3 Press the [F6] Vce Edit button to enter the Mixing Voice Edit mode.

- 4 Call up the Common Edit display or Element Edit display (for a Normal Voice)/Key Edit display (for a Drum Voice) .

To call up the Common Edit display, press the [COMMON EDIT] button. To edit more global

parameters related to the overall Voice and how it's processed, such as Arpeggio, Controller, and Effects, call up the Common Edit display.

To call up the Element Edit display (for a Normal Voice), press one of the Number buttons [1] – [8] to select the Element to be edited. To call up the Drum Key Edit display (for a Drum Voice), press the [1] button and the key to be edited. If you wish to edit the sounds that make up a Voice and the basic parameters that determine the sound, such as Oscillator, Pitch, Filter, Amplitude, and EG (Envelope Generator), call up the Element Edit or Drum Key Edit display.

- 5 Call up the Edit display including the parameters you wish to edit by pressing the [F1] – [F6] buttons and [SF1] – [SF5] buttons.

Both Common Edit and Element Edit (or Drum Key Edit) consist of several displays. To find a desired display, note the tab menu corresponding to the [F1] – [F5] buttons and [SF1] – [SF5] buttons.

- 6 Move the cursor to the desired parameter.

- 7 Edit the value by using the [INC/YES], [DEC/NO] buttons and the data dial.

- 8 Edit the Mixing Voice by repeating steps 4 – 7 as desired.

- 9 Enter a name for the Mixing Voice from the Name display (page 55) of the Common Edit.

For detailed instructions on naming, see page 37.

- 10 If you wish to store the edited Voice, press the [STORE] button to call up the Store window (page 192).

For detailed instructions on storing, see page 144.

- 11 Press the [EXIT] or [MIXING] button to return to the Mixing Play mode.

## Useful functions in the Mixing Voice Edit mode

### Switching an Element on/off

This is the same as in the Voice Element Edit mode (page 54).

### Soloing an Element to be edited

This is the same as in the Voice Element Edit mode (page 54).

### The [E] Indicator

This is the same as in the Voice Element Edit mode (page 54).

### Compare function

This is the same as in the Voice Element Edit mode (page 54).

### Mixing Voice Information—[SF6] INFO

This window indicates the information of the current Mixing Voice. You can call up this display by pressing the [SF6] INFO button in the Mixing Voice Edit mode. Keep in mind that the Information window can be called up only when the [SF6] tab menu indicates “INFO.”

Press any of the panel buttons to return to the original status.

## Storing the created Mixing Voice

[MIXING] → [F6] Vce Edit → [STORE]

- 1 When the [E] indicator is shown on the display in the Mixing Voice Edit mode, press the [STORE] button.

The Mixing Voice Store window appears.



- 2 Specify the destination for storing the Mixing Voice.

Select a Mixing Voice (MIXV) number as destination by using the data dial, [INC/YES] and [DEC/NO] buttons. You can store the Voice edited in the Mixing Voice Edit mode also as a User Voice by setting the Voice Bank to “USR1” – “USR4” or “USER DR.”

- 3 Press the [ENTER] button.

The display prompts you for confirmation. To cancel the Store operation, press the [DEC/NO] button.

- 4 Press the [INC/YES] button to execute the Store operation.

After the Mixing Voice has been stored, a “Completed” message appears and operation returns to the original display.

#### NOTICE

When you execute the Store operation, the settings for the destination memory will be overwritten. Important data should always be backed up to a separate USB storage device or to a computer connected via network to the MOTIF XF. For detailed instructions on saving, see page 241.

## Mixing Voice Job

[MIXING] → [F6] Vce Edit → [JOB]

The Mixing Voice Job mode provides convenient tools for organizing your created Mixing Voices.

### Mixing Voice Job Procedure

- 1 Press the [JOB] button in the Mixing Voice Edit mode to enter the Mixing Voice Job mode.
- 2 Call up the desired Mixing Voice Job by pressing the appropriate button ([F2] – [F4]).

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

**3 Set the parameters for executing the Job.**

Move the cursor to the desired parameter, then set the value.

**4 Press the [ENTER] button. (The display prompts you for confirmation.)**

To cancel the Job, press the [DEC/NO] button.

**5 Press the [INC/YES] button to execute the Job.**

After the Job has been completed, a “Completed” message appears and operation returns to the original display.

**NOTICE**

Even if a Job operation has been completed, selecting a different Voice or turning the power off without storing will erase the Voice data. Make sure to store the Voice data to internal memory by pressing the [STORE] button before selecting a different Voice or turning the power off.

**6 Press the [EXIT] button to return to the Mixing Voice Edit mode.****Recalling the unedited sound—[F2] Recall**

If you are editing a Mixing Voice but have not stored it before switching to another Mixing Voice, the edits you have made will be cleared. If this happens, you can use the Recall function to restore the Mixing Voice with your latest edits intact.

**Copying another Mixing Voice Element to the current one—[F3] Copy**

This Job lets you copy the Mixing Voice stored to a specified Song/Pattern to another Song/Pattern.

**1 Source Mixing Voice**

Determines the source Mixing Voice by selecting Song or Pattern (01 – 64) then specifying the number (01 – 16, all). The main category 1/main category 2 and name of the selected Mixing Voice is indicated in the lower line.

**2 Destination Mixing Voice**

Determines the destination Mixing Voice. Same as above.

**Deleting a Mixing Voice—[F3] Delete**

This Job deletes an unnecessary Mixing Voice. Note that up to 256 Mixing Voices can be stored for all Songs and Patterns. Accordingly, the Mixing Voice memory will become full and additional Voices cannot be stored if you've stored 16 different Voices for 16 different Songs. If this occurs, use this Job to delete any unused Mixing Voices.

**1 Mixing Voice to be deleted**

Determines the Mixing Voice to be erased.

**Settings:**

Song/Pattern: song, pattern

Song/Pattern number: 01 – 64

Mixing Voice number: 01 – 16, all

**Common Edit parameters**

[MIXING] → [F6] Vce Edit → [COMMON EDIT]

This is the same as in the Normal Voice Common Edit mode. See page 55. However, some parameters having the same name as those in the Voice Common Edit mode are not available in the Mixing Voice Edit mode.

**Element Edit parameters**

[MIXING] → [F6] Vce Edit → Element selection from [1] – [8]

This is the same as in the Normal Voice Element Edit mode. See page 69.

# Audio Recording to Song/Pattern (Sampling mode)

In addition to its use in the Voice and Performance modes, the Sampling mode can also be entered from the Song and Pattern modes. This lets you record audio (such as vocals, electric guitar, or audio from an external device), and use it directly on a Song/Pattern track as a Sample Voice. This section covers the Sampling functions when entering the Sampling mode by pressing the [INTEGRATED SAMPLING] button in the Song mode or the Pattern mode.

**NOTE** You can also enter the Sampling mode by pressing the [INTEGRATED SAMPLING] button in the Voice mode or the Performance mode. Keep in mind that the Sampling functions differ depending on from which mode the Sampling mode is called up, the Voice/Performance mode or the Song/Pattern mode. See page 119 for instructions on using the Sampling function in the Voice mode/Performance mode.

## NOTICE

The recorded (edited) Sample data will be lost when turning the power off. Before turning off the power, you should always copy the Sample data to the optional Flash Memory Expansion Module (page 34), or save the Sample data to a USB storage device or a computer connected to the same network as the MOTIF XF (page 41).

### Flash Memory Expansion Module (sold separately)

The sample obtained via the Sampling function can be stored as a Waveform by installing the optional Flash Memory Expansion Module FL512M/FL1024M to the MOTIF XF. The sample on the Flash Memory Expansion Module will be maintained even if the power is turned off and can be called up as a Waveform immediately. This is very convenient when using a User Voice containing the Waveform to which the Sample created via the Sampling function has been assigned.

## The Sampling mode structure

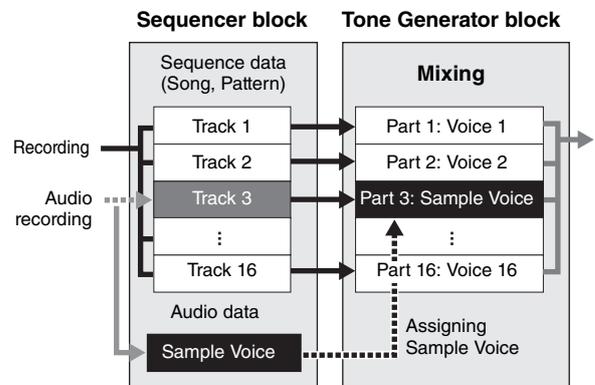
In this section, you'll learn about the structure and organization of Samples when recording audio to a Song/Pattern, as well as the relationship between Samples, Sample Voices, and Mixings.

**NOTE** For details about Samples, Waveforms, and Key Banks, see page 119.

### Audio Recording to Song/Pattern

Because Songs and Patterns on the MOTIF XF handle only MIDI data, audio signal cannot be recorded directly to a track even by executing the Sampling operation.

Audio data you've recorded to a track via the Sampling operation will be stored as a Sample Voice to a Song/Pattern. The stored Sample Voice will automatically be assigned to the Mixing Part corresponding to the recorded track. In addition, the MIDI data for triggering the Sample Voice will be recorded to the track. During playback, the MIDI data of the track will trigger the Sample Voice. Consequently, the resulting track effectively functions as an Audio track.



Audio data is recorded to a Sample Voice which is to be assigned to a Song/Pattern, and note on/off events for triggering the recorded audio signal are recorded to Track 3.

- MIDI data
- Audio data
- .... MIDI data for triggering the Sample Voice

## About Slice

The Slice function is an important operation of Sampling in the Song/Pattern modes, since it allows you to easily divide the audio into smaller parts which can then be triggered and controlled in many musically useful ways.

Slice actually performs two operations on a Sample simultaneously.

First, Slice creates a Sample Voice by dividing the original Sample into smaller Samples of a specific note value (such as 8th notes or 16th notes) depending on the rhythm, then assigns the Samples to Key Banks. The created Sample Voice is automatically assigned to the Mixing part corresponding to the recorded Track.

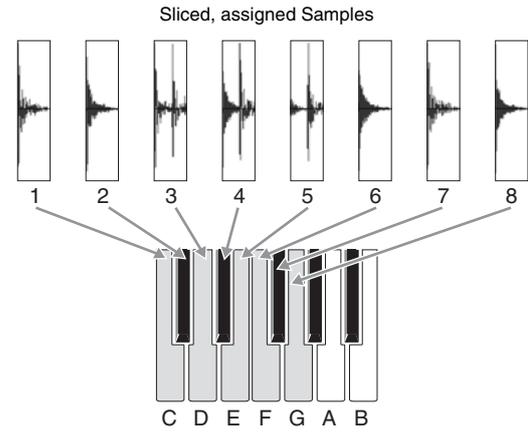
Second, the Slice function creates sequence data consisting of note events to which the sliced Samples are assigned in order. The note events in the created sequence data are arranged according to the Key Bank assignment chromatically, with each gate time of the note events matching the original Sample's rhythm (e.g., 8th notes or 16th notes).

The end result is that you can hear the same sound from both of the original Sample and the sliced Sample. If this were the only result, Slice wouldn't be of much use. However, once a Sample is 'sliced' in this way, it can be changed and played back in many convenient and creative ways.

Firstly, you can change the tempo of the Sample in real time. While the MOTIF XF features a Time Stretch Job for changing the tempo of the Sample, this Job cannot be used in real time during your keyboard performance because it takes some time to convert the Sample data. On the other hand, by using sliced Samples, you can change the speed of Sample playback by changing the tempo value of the Song/Pattern in real time.

The second benefit is that you can quickly and easily create variations of the original Sample by changing the playback of the sliced Samples.

For example, you could change the velocities and timing points of the note events to which the sliced Samples are assigned. This lets you create accents in the playback or change the rhythm of the Sample to a swing feel, for example. Furthermore, you can change the actual order of the Sample slices (as note events), making it exceptionally easy to come up with new and unusual sound variations.



Example 1

Phrase order to be played

1, 2, 3, 4, 5, 6, 7, 8

Example 2

1, 3, 1, 4, 5, 8, 3, 6

You can produce melodic or rhythmic variations simply by changing the sequence of the note events.

Reference

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

## Sampling Main display

The Sampling Main display, the entrance of the Sampling mode, is called up when entering the Sampling mode from the current mode. Pressing the [INTEGRATED SAMPLING] button in the Song mode or Pattern mode calls up the Sampling mode dedicated to creation of Sample Voices assigned to a Song/Pattern track. Press the [EXIT] button to return to the original mode, Song or Pattern.

**NOTE** This section covers the Sampling mode called up from the Song/Pattern mode. See page 120 for instructions on using the Sampling function in the Voice mode/Performance mode.

### Selecting a Waveform and Key Bank— [INTEGRATED SAMPLING]

The Sampling Main display lets you select the Waveform and its Key Bank and hear the sound of the Sample assigned to the selected Key Bank.



The parameters ① – ⑬ and the [SF1], [SF6], and [F6] buttons are same as in the Sampling mode called up from the Voice mode/Performance mode. See page 120.

#### ⑭ Track (Indication only)

Indicates the track number of the currently selected Song/Pattern.

#### ⑮ Measure (Indication only)

Indicates the measure number of the currently selected Song/Pattern.

**NOTE** Keep in mind that you can assign the User Voices created in the Sampling mode entered from the Voice/Performance mode to Mixing parts of the Song/Pattern. You can also assign the Waveforms created in the Sampling mode entered from the Song/Pattern mode to Elements of the Voice in the Voice Edit mode.

## Sampling Record

### [INTEGRATED SAMPLING] → [F6] Rec

The Sampling Record function lets you record sounds—such as vocals from a connected microphone, the signal from an electric guitar, or audio from an external CD or MP3 player—and store the audio as a Sample Voice, which is used in the tracks of a Song/Pattern. Refer to the Owner's Manual for instructions on using the Sampling function in the Song mode/Pattern mode.

**NOTE** This section covers the Sampling mode called up from the Song/Pattern mode. See page 121 for instructions on using the Sampling function in the Voice mode/Performance mode.

### Sampling Setup—[F6] Rec

From this display you can set up various parameters for Sampling. Press the [F6] button from the Sampling main display to call up this display. Press the [EXIT] button to go back to the Sampling Main display.

After setting up, press the [F6] Standby button to call up the Record Standby display (page 205).



**1 Recording Type**

Determines the recording method. The Sampling procedure and created Sample data differ depending on the setting here.

**Settings:** slice+seq, sample, sample+note

**slice+seq**

The recorded Sample is automatically divided into “slices” to be stored as a Sample Voice then these slices are assigned to successive notes on the keyboard. These notes are then automatically arranged in MIDI sequence data (to the specified track) for playback. For example, if a 1-measure drum pattern is sampled and a 8th note size is specified, the recorded measure will be sliced into (approximately) eight Samples which will be assigned to the eight consecutive notes on the keyboard.

**sample**

The recorded audio signal is just stored as a Sample Voice. This setting produces no MIDI sequence data resulting that the recorded Sample is not played back even when playing back the Song/Pattern.

**sample+note**

In addition to sample data, the appropriate note data for playing the sample is created and recorded to the specified Track (8).

**2 Input Source**

Determines the input connector via which the signal to be sampled will be received. Refer to the description of the same-named parameter on page 122.

**3 Stereo/Mono**

Determines whether new Samples will be recorded as stereo or mono Samples. Refer to the description of the same-named parameter on page 122.

**4 Record Next**

This is available when the Recording Type in the Setup display is set to “sample.” Refer to the description of the same-named parameter on page 122.

**5 Frequency**

Specifies the sampling frequency. Refer to the description of the same-named parameter on page 123.

**6 Waveform**

Determines the Waveform number as destination.

**Settings:** 001 – 128

**NOTICE**

**This operation overwrites any data previously existing at the destination Waveform number. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).**

**7 Keybank**

Determines the note number of the Key Bank as destination. The value set here can be changed in the Sampling Edit mode (page 210). Keep in mind that this parameter cannot be set when the Recording Type is set to “slice+seq.”

**Settings:** C -2 – G8

**NOTE** When the Recording Type is set to “slice+seq,” sliced Samples will be assigned to the notes in order chromatically, starting with C1 (MOTIF XF6), E0 (MOTIF XF7) and A -1 (MOTIF XF8) respectively.

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

**8 Track**

Determines the track number to which the recorded Sample is assigned. After recording is finished, the created Sample Voice is to be assigned to the Mixing part corresponding to the Track specified here. When the Recording Type is set to “slice+seq” or “sample+note,” the note data for playing back the Sample Voice will be created in the Track specified here.

**Settings:** 01 – 16

**9 Part**

This parameter is not available when entering the Sampling mode from the Song mode/Pattern mode.

**10 Voice**

This parameter is not available when entering the Sampling mode from the Song mode/Pattern mode.

**11 Drum Key**

This parameter is not available when entering the Sampling mode from the Song mode/Pattern mode.

**12 Recordable Time (Indication only)**

Indicates the available Sampling time using the available memory. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. The amount of memory space currently being used is shown in the display as a blue line.

**13 [F6] Standby**

Pressing this button to call up the Sampling Standby display.

This display is used for executing the Sampling. For details, see page 205.

## Sampling Standby and Start—[F6] Standby

This display is used for starting Sampling. Press the [F6] button from the Setup display to call up this display. Press the [EXIT] button to go back to the Setup display.

After setting the parameters as necessary, press the [F5] Start button to start the Sampling procedure. Note that the actual Sampling start timing differs depending on the Trigger Mode setting.

### When the Trigger Mode (10) is set to “level”:

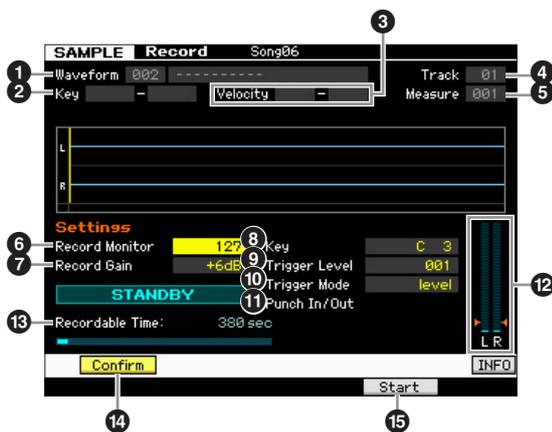
Even if you press the [F5] Start button, the WAITING indication just appears on the display and actual Sampling does not start. When audio signal exceeding the specified Trigger Level (9) is input, the RECORDING indication replaces the WAITING indication and Sampling starts.

### When the Trigger Mode (10) is set to “meas”:

Even if you press the [F5] Start button, the WAITING indication just appears on the display and actual Sampling does not start. Set the Measure (5) at which the Song/Pattern playback starts, input a measure number larger than the Measure value (5) to the Punch In/Out parameter (11), then press the [▶] (Play) button to start playback. After starting playback, actual sampling will begin at the specified Punch In measure, and end at the specified Punch Out measure.

### When the Trigger Mode (10) is set to “manual”:

Actual Sampling (Recording) starts when you press the [F5] Start button.



#### 1 Waveform (Indication only)

Indicates the number and name of the selected Waveform.

#### 2 Key Range (Indication only)

Indicates the key range of the currently selected Key Bank.

#### 3 Velocity (Velocity Range) (Indication only)

Indicates the velocity range of the currently selected Key Bank.

#### 4 Track (Indication only)

Indicates the track number to which the recorded Sample is assigned.

#### 5 Measure

Indicates the measure number of the currently selected Song/Pattern. You can change the measure number by using the [◀]/[▶] (Reverse/Fast Forward) buttons.

##### Settings:

When entering the Sampling mode from the Song mode: 001 – 999  
When entering the Sampling mode from the Pattern mode: 001 – 256

#### 6 Record Monitor

Determines the output level of the monitor for the input signal. This monitor signal is output from the PHONES jack or the OUTPUT R and L/MONO jacks.

##### Settings: 0 – 127

#### 7 Record Gain

This parameter is available only when the Input Source (page 204) is set to “resample.” Determines the recording gain when resampling. The higher the value, the greater the volume of the resampled sound. Before executing the Sampling (Recording) operation, you can set the appropriate gain by checking the volume via the Level Meter (12) while playing the keyboard.

##### Settings: -12dB, -6dB, +0dB, +6dB, +12dB

#### 8 Key

Indicates the Key Bank (page 204) set in the Sampling Record Setup display. The Key Bank can be changed both here and in Sampling Edit (page 210) after the Recording is finished.

##### Settings: C -2 – G8

**NOTE** You can also set the Key directly from the keyboard, by holding down the [SF6] KBD button and pressing the desired key. For details, see page 37.

#### 9 Trigger Level

When the Trigger Mode (10) is set to “level,” you’ll also need to set the Trigger Level. Sampling (Recording) will begin as soon as an input signal exceeding the specified trigger level is received. The level set here will be indicated as a red triangle in the level meter. For best results, set this as low as possible to capture the entire signal, but not so low as to record unwanted noise.

##### Settings: 000 – 127

#### 10 Trigger Mode

Determines the method by which Sampling will be triggered.

##### Settings: level, meas, manual

##### level

Sampling starts as soon as an input signal exceeding the specified trigger level (9) is received.

##### meas (measure)

This should be set together with the Punch In/Out measure (11). After the [F6] Start button is pressed, actual sampling will begin at the specified Punch In measure, and end at the specified Punch Out measure. Sampling will also stop when the Song/Pattern is stopped by pressing the [■] (Stop) button. This method lets you recording the audio signal while monitoring the sound of other Tracks.

##### manual

## Audio Recording to Song/Pattern (Sampling mode)

Sampling starts soon after you press the [F6] REC button. This setting lets you start Sampling at the desired timing regardless of the input level from audio source.

### 11 Punch In/Out

This parameter is available only when the Trigger Mode (10) is set to "meas." The Punch In value determines the measure number at which sampling starts automatically while the Punch Out value determines the measure number at which sampling stops automatically.

**Settings:** 001 – 999 (Song mode), 001 – 256 (Pattern mode)

### 12 Level Meter

### 13 Recordable Time (Indication only)

Refer to the description of the same-named parameter on page 123.

### 14 [SF1] Confirm

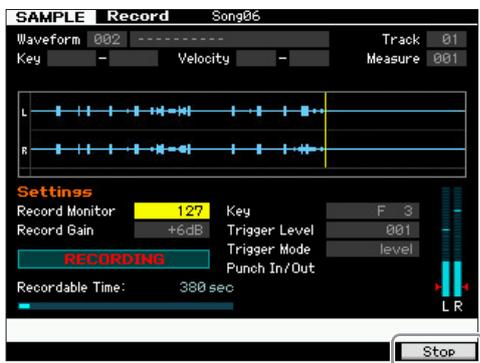
This is available when Recording Type in the Setup display (page 204) is set to "sample" or "sample+note."

### 15 [F5] Start

Press this button to start Sampling.

## Sampling RECORDING display

During Sampling, a graphic representation of the recorded audio appears in the display.



### [F6] Stop

Press this button to stop Sampling (Recording). In each of the following cases, the "FINISHED" display appears after Sampling is finished.

- When Recording Type (page 204) is set to "sample" or "sample+note" and [SF1] Confirm is turned on
- When Recording Type (page 204) to "slice+seq"

From the FINISHED display, you can listen to the just-recorded Sample by pressing the [SF1] button. See below for details.

## Sampling FINISHED display

When [F2] Confirm is turned on before the Sampling starts, the FINISHED display below appears as soon as the Sampling is finished. From this display, you can hear and confirm the Sample by pressing the [SF1] Audition button. If you are satisfied with the sound, press the [ENTER] button to fix the Sampling result as Sample data. If you are not satisfied with the Sampling result, press the [EXIT] button then try again.

When [F2] Confirm is turned off before Sampling starts, the Sampling operation will automatically fix the Sample data and return to the Setup display (page 203).



### [SF1] Audition

You can hear the recorded Sample by holding this button. This lets you hear precisely how the Sample is played back.

**NOTE** When Recording Type (page 204) is set to "sample" or "sample+note" and [SF1] Confirm is turned off, stopping Recording will automatically fix the just-recorded Sample data and the instrument will return to the Setup display (page 203). Please note that the instrument returns to the STANDBY display as soon as Sampling is finished if Record Next is turned on in the Setup display before the Sampling operation.

**NOTE** When Recording Type (page 204) is set to "slice+seq," stopping Recording calls up the Record Trim display (page 207).

## Trimming the Sample—Record Trim display

When Recording Type (page 204) is set to “slice+seq,” stopping Recording (and subsequently fixing the sampled data when Confirm is turned on) calls up this display. From this display, you can delete unwanted portions of the Sample, located ahead of the Start point and located after the End point). Press the [EXIT] button to go back to the Setup display.

The procedure in the Record Trim display is as follows.

### 1 Set the Start Point to the point at which the actual sound of the recorded Sample starts.

You can use the [SF1] Audition button to listen to the Sample and [SF4] Zoom Out/[SF5] Zoom In button to view the wave of the Sample.

**NOTE** By pressing the [SF6] NUM button, you can use the [SF1] – [SF5] and [F1] – [F6] buttons as number buttons. Pressing the [EXIT] button return their buttons to the original status. For details, see page 36.

### 2 Set the Tempo (9), Meter (10), and Measure (11) for Sample playback.

The End Point (8) will be automatically changed so that the length between the Start Point and the End Point matches the settings here.

### 3 Set the Loop Point (7) as necessary.

When the menu indication of the [SF2] button is “LP=ST,” the Start (Start Point) and the Loop (Loop Start Point) will share the same address, meaning that both of them will be changed simultaneously, even if just one of them is changed. Pressing the [SF2] button in this condition changes the menu from “LP=ST” to “LP≠ST.” When the menu indication here is “LP≠ST,” the Start (Start Point) and the Loop (Loop Start Point) can be changed independently. When pressing the [SF2] button in this condition, the address value of the Start will be copied to the one of the Loop, with the result that both of them share the same address value. The menu indication of the [SF2] button also changes from “LP≠ST” to “LP=ST.”

### 4 Press the [ENTER] button. (The display prompts you for confirmation.)

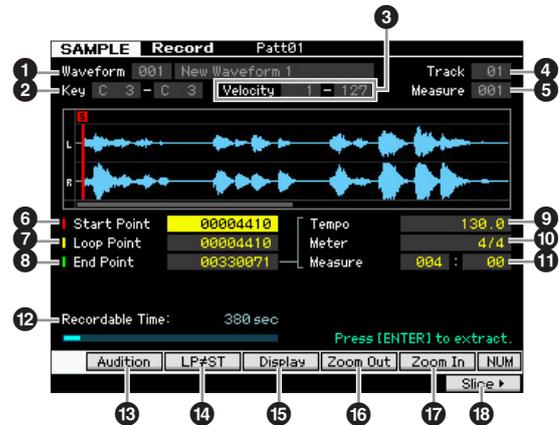
If you wish to cancel the operation, press the [DEC/NO] button.

### 5 Press the [INC/YES] button to execute the Extract operation to delete unwanted portions of the Sample.

### 6 Press the [F6] Slice button to call up the Slice display.

## NOTICE

The data deleted via the Extract operation cannot be recovered. If you have accidentally deleted a necessary portion of the Sample, press the [EXIT] button to return to the Setup display, then execute the Sampling operation again.



Parameters 1 – 5 are the same as the ones in the Standby display (page 205).

### 6 Start Point

Determines the Start point for Sample playback. The part at the left side of this point will not be played back.

**Settings:** 0000000 – End point

### 7 Loop Point

Determines the Loop point at which the loop playback starts. When the Play mode is set to “loop,” the Sample is played back between this Loop point and the End point (6).

**Settings:** 0000000 – End point

### 8 End Point

Determines the End point for Sample playback. The part at the right side of this point will not be played back. The End Point will be automatically determined so that the length between the Start Point and the End Point matches the settings of the Tempo (9), Meter (10), and Measure (11).

**Settings:** 0000000 – (depending on the Sample's length)

### 9 Tempo

Determines the Tempo of Sample playback. Setting the Tempo changes the End Point (8) so that the length between the Start Point and the End Point matches the settings of the Meter and Measure.

**Settings:** 5.0 – 300.0

### 10 Meter

Determines the meter (time signature) of Sample playback. Setting the Meter changes the End Point (8) so that the length between the Start Point and the End Point matches the settings of the Tempo and Measure.

**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

**11 Measure**

Determines the amount of measures for Sample playback. Setting the Measure changes the End Point (8) so that the length between the Start Point and the End Point matches the settings of the Tempo and Meter.

**Settings:**

Measure: 000 – 032

Beat: 00 – 15 (Varies depending on the Meter setting.)

**12 Recordable Time** (Indication only)

Indicates the available Sampling time using the available memory. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. The amount of memory space currently being used is shown in the display as a blue line.

**13 [SF1] Audition**

You can hear the selected Sample by holding this button. This lets you hear precisely how the Sample is played back.

**14 [SF2] LP=ST**

When the menu indication here is “LP=ST,” the Start (Start Point) and the Loop (Loop Start Point) will share the same address, meaning that both of them will be changed simultaneously, even if just one of them is changed. Pressing the [SF2] button in this condition changes the menu from “LP=ST” to “LP≠ST.” When the menu indication here is “LP≠ST,” the Start (Start Point) and the Loop (Loop Start Point) can be changed independently. When pressing the [SF2] button in this condition, the address value of the Start will be copied to the one of the Loop, with the result that both of them share the same address value. The menu indication also changes from “LP≠ST” to “LP=ST.”

**15 [SF3] Display**

Pressing the [SF3] button adjusts the zoom level so that the entire wave, including the Start Point and End Point, is shown on the display.

**16 [SF4] Zoom Out****17 [SF5] Zoom In**

Press these buttons to zoom in and out of the wave indication of the Sample in the display.

**18 [F6] Slice**

Pressing this button calls up the Record Slice display.

## Slicing the Sample—Record Slice display

When the Recording Type (page 204) is set to “slice+seq,” you can call up this display by pressing the [F6] Slice button in the Record Slice display. From this display, you can divide the recorded Sample into several slices according to the rhythm of the original Sample. By executing the Slice operation, the recorded Sample is first divided into “slices” to be stored as a Sample Voice, then these slices are assigned to successive notes on the keyboard. These notes are then automatically arranged in MIDI sequence data (to the specified track) for playback.

The procedure on the Record Slice display is as follows.

**1 Select a Slice Type (6).****2 Set the amount of Measures (7) for Sample playback.****3 Set the Meter (8), Sub Divide (9), and Sensitivity (10).****4 Press the [SF4] Apply button to execute Slice.**

The tab menu “Apply” is changed to “Cancel.” At this time, the Sample has been modified temporarily and is not fixed as data.

**5 Confirm the result of the Slice operation.**

Press the [SF1] Audition button to hear the modified Sample. If you are satisfied with the result, go on to step 6. If you are not satisfied with the results and want to try again, press the [SF4] Cancel button to abort the Slice operation and return the Sample to the original status. The tab menu “Cancel” returns to “Apply.” In this case, attempt the operation again from step 1.

**6 Press the [ENTER] button to fix the Slice result as Sample data.**

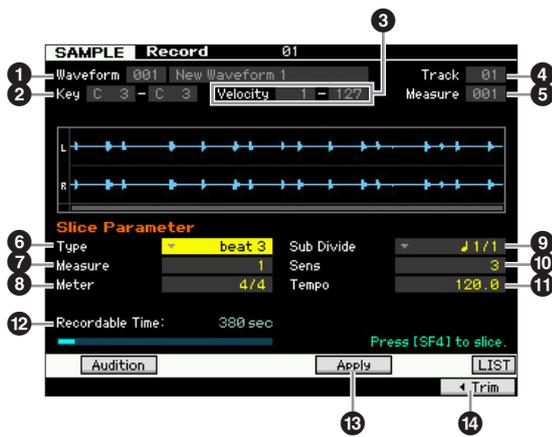
The instrument returns to the Setup display.

**7 Press the [EXIT] button a number of times to go back to the Song mode or Pattern mode.**

Listen to the recorded track having the sliced Sample.

**8 Before turning the power off, store the Song or Pattern data to internal memory.****9 Save the Waveform.**

If the optional Flash Memory Expansion Module is installed to the MOTIF XF, use the Copy Job (page 130) to save the Waveform. If not, save the Waveform to a USB storage device or a computer connected to the same network as the MOTIF XF (page 41).



Parameters ① – ⑤ are the same as the ones in the Standby display (page 205).

## ⑥ Type

Select the type that best suits the original phrase. Specifies how the Sample is sliced, and to some extent determines the resulting sound quality.

**Settings:** beat1 – 3, phrase1 – 4, quick

### beat1 – 3

This slice type is suited for percussive phrases such as drums or bass with a fast attack and short decay. Three variations are provided.

### phrase1 – 4

Ideal for phrases containing cymbals or other instruments with a long decay. Four variations are provided.

### quick

Regardless of the phrase content, the Sample is divided at the specified note sub-divisions. The number of slices per measure is calculated by multiplying the top number of the Meter (time signature) parameter by the bottom number of the Sub Divide parameter.

**NOTE** For helpful hints on getting the Slice Type parameter to work for different Samples, see “Tips for using the Slice Types” below.

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

## ⑦ Measure

Determines the amount of measures for Sample playback. When the Slice operation is executed, sequence data corresponding to the specified number of measures is created.

The sequence data is created from the beginning of the current measure at which Sampling is started.

**Settings:** 1 – 8

## ⑧ Meter

Specifies the meter (time signature) of the Sample. The setting here is the basic slice unit.

**Settings:** 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

## ⑨ Sub Divide

The Meter parameter sets the basic slice unit, and Sub Divide specifies even finer resolution for phrases containing regions with shorter notes. For a one-measure phrase including quarter notes and eighth notes, for example, the Meter should be set to 4/4 and Sub Divide to

1/2. This parameter has no effect when the Slice Type parameter is set to beat 1 – 2.

### Settings:

**When Meter is set to 1 – 8/4:** quarter note (1/1), 8th note (1/2), 4th note triplet (1/3), 16th note (1/4), 8th note triplet (1/6), 32nd note (1/8), 16th note triplet (1/12)

**When Meter is set to 1 – 16/8:** 8th note (1/1), 16th note (1/2), 8th note triplet (1/3), 32nd note (1/4), 16th note triplet (1/6)

**When Meter is set to 1 – 16/16:** 16th note (1/1), 32nd note (1/2), 16th note triplet (1/3)

**NOTE** The maximum slice resolution for stereo Samples is 64 slices, and for mono Samples 128 slices.

## ⑩ Sens (Sensitivity)

Further adjusts the sub-divisions specified by the Sub Divide parameter. Higher values result in higher resolution, allowing even finer notes and smaller sounds to be detected and sliced. Use the Audition function (press [SF1]) to hear the results, and if you're not satisfied with them, change the setting and try again.

This parameter has no effect when the “quick” slice type is selected.

**Settings:** 1 – 5

## ⑪ Tempo

Determines the Tempo with which the sliced Samples are to be played back via the [SF1] Audition button. The value set here is applied to the tempo of Song/Pattern playback.

**Settings:** 005 – 300

## ⑫ Recordable Time (Indication only)

Indicates the available Sampling time using the available memory. The time indicated here is calculated assuming a mono signal with a sampling frequency of 44.1 kHz. The amount of memory space currently being used is shown in the display as a blue line.

## ⑬ [SF4] Apply

When this tab menu indicates “Apply,” Sampling (Recording) has already finished and the Slice operation has not been executed yet. In such a situation, pressing this button executes the Slice and changes the tab menu from “Apply” to “Cancel.”

When this tab menu indicates “Cancel,” both the Sampling (Recording) and the Slice operations have been executed. In this status, pressing this button returns to the before-slice status with the “Apply” indication.

## ⑭ [F6] Trim

Pressing this button calls up the Record Trim display (page 207), allowing you to delete unwanted portions of the Sample.

## Tips for using the Slice Types

### Slicing percussive phrases having short decays

First, try slicing using “beat1.” If the result has a weak attack or the release portions of the phrase seem to overlap, try again using “beat2.” Try adjusting the envelope sensitivity for finer control.

If after using “beat1” the attack portions overlap or the overall rhythmic feel is degraded, try again using “beat3.” Make final adjustments with the Envelope Sensitivity parameter.

### Slicing phrases having long decays

First, try slicing using “phrase1.” If the result has a weak attack or the release portions of the phrase seem to overlap, try again using “phrase2.” Make final adjustments with the Envelope Sensitivity parameter.

If after using “phrase1” the points between the slices sounds rough and the overall feel is choppy, try again using “phrase3” or “phrase4” and set Sub Divide to a finer resolution. Make final adjustments with the Envelope Sensitivity parameter. The “phrase3” setting is generally best for sustained strings or brass type sounds with no vibrato—in other words, the pitch remains constant. It can also produce echo-like effects when applied to percussive phrases with short decay.

If after using “phrase1” the points between the slices sounds rough and the overall feel is choppy, try again using “phrase4” and set Sub Divide to a finer resolution. Make final adjustments with the Envelope Sensitivity parameter. The “phrase4” setting is generally best for sustained strings or brass type sounds with vibrato, as well as vocal phrases.

## Wave Memory Required for Slice Operations

Individual wave data slices created through Slice operations require approximately 1.5 times the original memory because a tail section is automatically added and fade-in and fade-out sections are automatically created at the beginning and end of the wave data. This helps to maintain maximum sound quality when the tempo is increased, and results in smoother connections between slices (no tail section is created when the “quick” slice type is selected).

A memory work area is required for the processing calculations carried out for each Slice operation, as well as sufficient memory to hold the completed waveforms. When the sampling frequency is 44.1 kHz, the approximate amount of memory (expressed in kilobytes) required for each Slice type is listed below.

beat 1	Original wave size X N + (0.3 X number of slices)
beat 2	Original wave size X N + (0.2 X number of slices)
beat 3	Original wave size X N + (0.3 X number of slices)
phrase 1	Original wave size X N + (5.8 X number of slices)
phrase 2	Original wave size X N + (1.4 X number of slices)
phrase 3	Original wave size X N + (0.4 X number of slices)
phrase 4	Original wave size X N + (1.4 X number of slices)
quick	Original wave size X N + (0.7 X number of slices)

For mono Samples N = 5.5, and for stereo Samples N = 8. Also, the number of slices is doubled for stereo Samples.

## Sampling Edit

[INTEGRATED SAMPLING] → [EDIT]

The Sampling Edit mode gives you comprehensive, detailed controls for editing the recorded Sample and changing the Sample settings. Press the [EDIT] button from the Sampling Main display to call up the Sampling Edit display. Press the [EXIT] button to go back to the Sampling Main display.

Same as in the Sampling mode called up from the Voice mode/Performance mode. For information about Sampling Edit, see page 126.

## Sampling Job

[INTEGRATED SAMPLING] → [JOB]

The Sampling Job mode lets you process and modify Samples you have recorded. 19 Sampling Jobs are available.

Same as in the Sampling mode called up from the Voice mode/Performance mode. For information about the Sampling Jobs, see page 129.

# Using as a Master Keyboard (Master mode)

This synthesizer is loaded with such a wealth of different features, functions and operations, you may find it difficult to locate and call up the particular feature you need. This is where the Master function comes in handy. You can use it to memorize the operations you use most often in each mode, and call them up instantly anytime you need them with a single button press. The MOTIF XF has space for a total of 128 of your own User Master settings. Press the [MASTER] button to enter the Master Play mode.

## Master Play mode

To enter the Master Play mode and call up the Master Play display, press the [MASTER] button from the current mode.

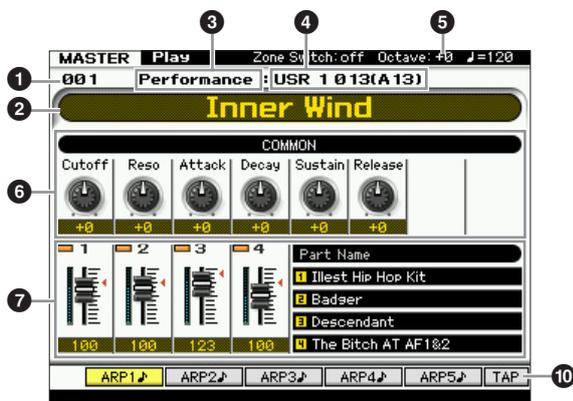
### Selecting a Master Program

The MOTIF XF features 128 specially programmed Masters, stored to internal User Memory (Flash ROM). The Bank consists of eight Groups (A to H), each of which contains 16 Master programs. To call up the desired Master program, select the appropriate Group and Number.

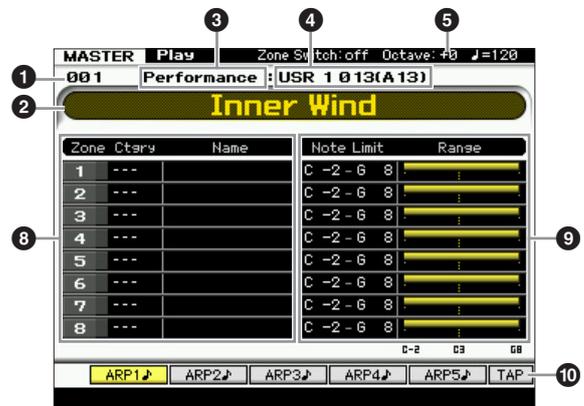
### Playing the Keyboard in the Master Play mode—[MASTER]

In the Master Play mode, you can select a Master program and play the keyboard according to the settings of the selected Master program. Changing the Master number lets you call up one of the modes and various settings such as tone generator settings (multi-timbral or single) and MIDI settings.

#### Type 1 of the Master Play display



#### Type 2 of the Master Play display



#### 1 Master Number (Group/Number)

Indicates the selected Master number.

**NOTE** Master numbers 001 to 128 are converted to the format (shown in the parentheses) related to Banks A to H and Program Numbers 1 to 16 (for the Bank). This format is related to the Group buttons [A] – [H] and the Number buttons [1] – [16]. The Master numbers and the corresponding Group/Numbers are listed below.

Group/Number	Program Number
A01 – 16	001 – 016
B01 – 16	017 – 032
C01 – 16	033 – 048
D01 – 16	049 – 064
E01 – 16	065 – 080
F01 – 16	081 – 096
G01 – 16	097 – 112
H01 – 16	113 – 128

#### 2 Master name (Indication only)

Indicates the name of the current Master.

#### 3 Mode (Indication only)

Indicates the mode memorized to the current Master. One the modes (Voice, Performance, Pattern or Song) is indicated here.

**4 Program number** (Indication only)

Determines the Program number (Voice number, Performance number, Song number, or Pattern number) that is called up when the Master is selected. The program type differs depending on the memorized mode.

When the Voice mode is memorized:	Voice Bank/Number
When the Performance mode is memorized:	Performance Bank/Number
When the Song mode is memorized:	Song Number
When the Pattern mode is memorized:	Pattern Number

**5 Octave**

Indicates the Keyboard Octave setting set via the OCTAVE buttons. This parameter determines how much higher or lower the pitch of each key is compared to normal pitch.

**6 Knobs 1 – 8**

Indicates the parameters to which respective Knobs 1 – 8 are assigned and their current values. Pressing the [SELECTED PART CONTROL] button repeatedly switches among the parameter sets (indicated by the lamps). For information about the parameters, see below.

When the Voice mode is memorized:	See page 46.
When the Performance mode is memorized:	See page 94.
When the Song mode is memorized:	See page 138.
When the Pattern mode is memorized:	See page 168.

**7 Control Sliders 1 – 8**

Indicates the levels of respective Control Sliders 1 – 8. The target to be adjusted by the Control Sliders differs depending on the mode memorized to the current Master.

## Master Edit

The Master Edit mode lets you create your own original Master programs—containing up to eight different Zones (keyboard areas)—by editing the various parameters. To enter the Master Edit mode, press the [EDIT] button in the Master Play mode. Press the [EXIT] button to return to the original display.

### Common Edit and Zone Edit

In the Master mode, you can divide the keyboard into (up to) eight independent areas (called “Zones”). Different MIDI channels and different functions of the Knobs and Control Sliders can be assigned to each Zone. This makes it possible to control several Parts of the multi-timbral tone generator simultaneously by a single keyboard or to control Voices of an external MIDI instrument over several different channels in addition to the internal Voices of this synthesizer itself—letting you use the MOTIF XF to effectively do the work of several keyboards. You can set the parameters related to the eight Zones in the Master Edit mode and store the settings as a User Master.

When the Voice mode is memorized:	Volume for Elements 1 – 8
When the Performance mode is memorized:	Volume for Parts 1 – 4
When the Song mode is memorized:	Volume for Parts 1 – 16
When the Pattern mode is memorized:	

**8 Zone name**

Indicates the name for each Zone.

**9 Note Limit / Range**

Indicates the note range for each Zone with the note name and the horizontal graphic.

**[SF1] ARP1 – [SF5] ARP5 (Arpeggio 1 – 5)**

When the memorized mode is Voice or Performance, a different Arpeggio type is assigned to each of the [SF1] ARP1 – [SF5] ARP5 buttons according to the Voice or Performance number. The Arpeggio types are assigned to the buttons with the 8th note icon on the display tab. You can call them up by pressing these buttons any time during your keyboard performance.

**[SF1] Scene1 – [SF5] Scene5**

When the memorized mode is Song or Pattern, a different Scene setting is assigned to each of the [SF1] – [SF5] buttons according to the Song or Pattern number.

**10 [SF6] TAP**

The speed at which you press this button several times will determine the playback tempo of the Arpeggio/Song/Pattern.

There are two types of Master Edit displays: those for editing parameters common to all eight Zones and those for editing individual Zones.

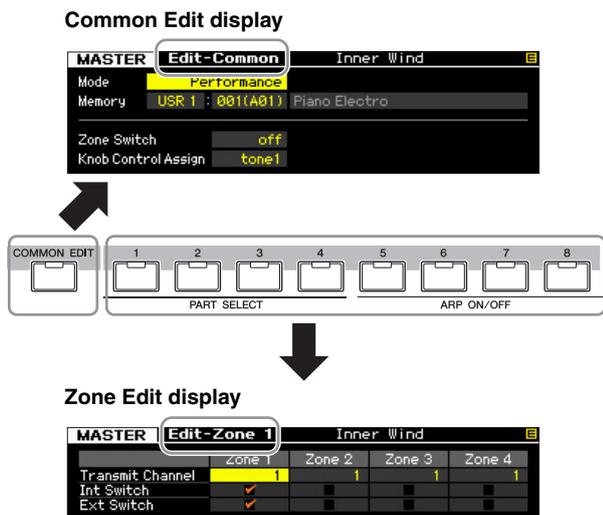
### Master Edit Procedure

- 1 Press the [MASTER] button to enter the Master Play mode, then select a Master.**
- 2 Press the [EDIT] button to enter the Master Edit mode.**

- 3 Set the Zone Switch parameter to “on” in the Other display as necessary.
- 4 Call up the Common Edit display or Zone Edit display.

To call up the Common Edit display, press the [COMMON EDIT] button. You can specify the mode and program number called up when the Master is selected, and the Master name in the Common Edit mode.

To call up the Zone Edit display, press one of the Number buttons [1] – [8] to select the Zone to be edited. Here you can set various parameters such as the keyboard range and MIDI Transmit Channel for each Zone in the Zone Edit mode.



- 5 Call up the Edit display including the parameters you wish to edit by pressing the [F1] – [F5] buttons and [SF1] – [SF2] buttons. For information about the parameters, see pages 214 and 215.
- 6 Move the cursor to the desired parameter.
- 7 Edit the value by using the [INC/YES], [DEC/NO] buttons and the data dial.
- 8 Repeat steps 4 – 7 as desired.
- 9 Enter a name for the Master in the Name display (page 214) of Common Edit.
- 10 If you wish to store the edited Master, press the [STORE] button to call up the Store window (page 213).

For detailed instructions on storing, see page 213.

#### NOTICE

- The edited Master will be lost when selecting a different Master, calling up a different mode, or turning the power off. Make sure to store the Master data to internal memory by pressing the [STORE] button before selecting a different

Master, calling up a different mode, or turning the power off.

- Because User Memory to which the Master is stored is Flash Memory, the edited and stored Master will not be erased even if the power is turned off. You need not worry about losing your stored data. The Master Store operation, however, will overwrite the Master data already stored to the destination Master number. For this reason, important data should always be backed up to a separate USB storage device or to a computer connected via network to the MOTIF XF (page 241).

## The [E] Indicator

When changing the value of the parameter in the Master Edit mode, the [E] (Edit Indicator) will appear on the top right corner of the display. This gives a quick confirmation that the current Master has been modified but not yet stored. To store the current edited status, follow the instructions below.

## Storing the created Master

[MASTER] → [STORE]

- 1 Press the [STORE] button in the Master mode. The Master Store window appears.



- 2 Specify the destination for storing the Master. Select a Master number as destination by using the data dial, [INC/YES] and [DEC/NO] button. You can use the [USER 1] button, [A] – [H] buttons and [1] – [16] buttons to select a Master number.
- 3 Press the [ENTER] button. (The display prompts you for confirmation.) To cancel the Store operation, press the [DEC/NO] button.
- 4 Press the [INC/YES] button to execute the Store operation. After the Master has been stored, a “Completed” message appears and operation returns to the Master Play display.

#### NOTICE

When you execute the Store operation, the settings for the destination memory will be overwritten. Important data should always be backed up to a separate USB storage device or to a computer connected via network to the MOTIF XF. For detailed instructions on saving, see page 241.

## Common Edit parameters

[MASTER] → [EDIT] → [COMMON EDIT]

Common Edit lets you edit the parameters common to all Zones of the selected Master.

### Naming the edited Master—[F1] Name

From this display, you can assign the name to the entire Master program (at the top of this display) and all the Zones (1 – 8 listed on this display) used in building up the Master. For detailed instructions on naming, refer to “Basic Operation” on page 37.

### Other Parameter Settings—[F2] Other

From this display you can set basic parameters for the Master, including the mode that is called up with the Master and the program number.



#### 1 Mode

Determines the mode that is called up when the Master number is selected.

**Settings:** voice, performance, pattern, song

#### 2 Memory

Determines the Program number that is called up when the Master is selected. The name of the selected Voice/Performance/Song/Pattern is shown.

**Settings:** Differs depending on the Mode setting above.

**When the Mode is set to Voice:**

Voice Bank: PRE1 – 8, USR1 – 3, GM, GMDR, PDR, UDR  
Voice Number: 001 (A01) – 128 (H16)

**When the Mode is set to Performance:**

Performance Bank: USR1 – 3  
Performance Number: 001 (A01) – 128 (H16)

**When the Mode is set to Pattern:**

Pattern Number: 01 – 64

**When the Mode is set to Song:**

Song number: 01 – 64

#### 3 Zone Switch

Determines whether or not the keyboard will be divided into (up to) eight independent areas (called “Zones”). For details about Zones, see page 212.

**Settings:** on, off

#### 4 Knob Ctrl Assign (Knob Control Assign)

From this display you can set which row of Knob functions will be lit and selected. When set to “zone,” selecting the Master lights no lamp and automatically calls up the Knob/Slider functions specifically set for each respective Zone (page 217).

**Settings:** Differs depending on the Mode setting above. Note that “zone” can be selected only when the Zone Switch (3) is set to “on.”

**When the Mode is set to Voice:**

tone 1, tone 2, ARP FX, zone

**When the Mode is set to Performance, Pattern or Song:**

tone 1, tone 2, ARP FX, reverb, chorus, pan, zone

#### 5 [F6] Get Name

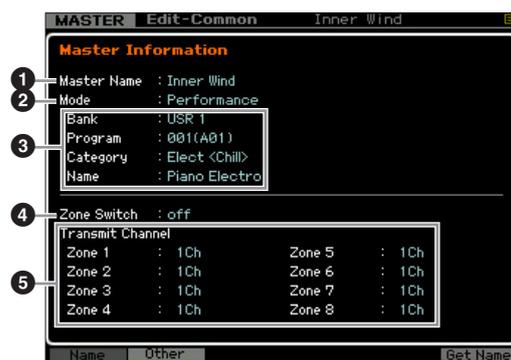
Pressing the [F6] button assigns the name of the currently selected Voice/Performance/Song/Pattern to the Master name.

#### 6 [SF6] INFO (Information)

Press this button to call up the information window of the current Master.

## Master Information—[SF6] INFO (Information)

This window indicates the information of the current Master. Settings cannot be changed here.



#### 1 Master Name

Indicates the name of the current Master.

#### 2 Mode

Indicates the mode memorized to the current Master. One of the modes (Voice, Performance, Pattern or Song) is indicated here.

**3 Program**

Indicates the number and name of the program (Voice, Performance, Song, or Pattern) that is called up when the Master is selected. The program differs depending on the memorized mode.

When the Voice mode is memorized:	Voice Bank, Number, Category, Name
When the Performance mode is memorized:	Performance Bank, Number, Category, Name
When the Song mode is memorized:	Song number, Song name
When the Pattern mode is memorized:	Pattern number, Pattern name

**4 Zone Switch**

Determines whether or not the keyboard will be divided into (up to) eight independent areas (called “Zones”). For details about Zones, see page 212.

**5 Transmit Channel**

Indicates the MIDI transmit channel of each Zone (when the Zone Switch is set to on).

## Zone Edit parameters

[MASTER] → [EDIT] → [1] – [8]

These parameters are for editing the individual Zones that make up a Master. To call up the Zone Edit display, press the [EDIT] button in the Master Play mode, then press any of the Number buttons [1] – [8]. Press the [EXIT] button to return to the Master Play display.

### MIDI Transmit Channel/Switch Settings —[F1] Transmit

From this display you can set how each Zone transmits MIDI messages when you play the keyboard.

**1 Transmit Channel**

Determines the MIDI Transmit Channel for each Zone.

**Settings:** 1 – 16

**2 Int Switch (Internal Switch)**

Determines whether or not MIDI data for each Zone is transmitted to the internal tone generator.

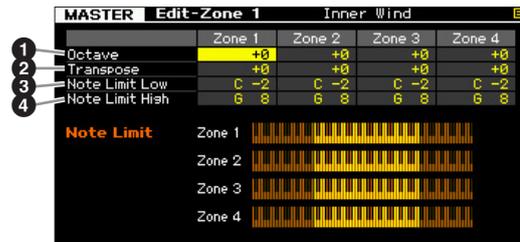
**NOTE** When the Local Control parameter is set to “off” on the MIDI display (page 228) in the Utility mode, MIDI data for each Zone will not be transmitted to the internal tone generator, even if the Int Switch parameter is set to “on.”

**3 Ext Switch (External Switch)**

Determines whether or not MIDI data for each Zone is transmitted to an external MIDI device.

### Note Range Setting for each Zone—[F2] Note

From this display you can set the pitch- and keyboard-related parameters for each Zone—allowing you to set up Zone splits and determine the pitch range for each Zone.

**1 Octave**

Determines the amount in octaves by which the range of the Zone is shifted up or down. You can adjust the offset up or down over a maximum range of three octaves.

**Settings:** -3 – +0 (Default) – +3

**2 Transpose**

Determines the amount in semitones by which the range of the Zone is shifted up or down.

**Settings:** -11 – +0 (Default) – +11

**3 Note Limit Low****4 Note Limit High**

Determines the lowest and highest notes of the range for each Zone.

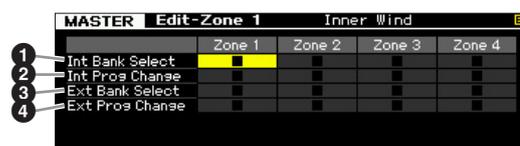
**Settings:** C -2 – G8

**NOTE** You can also set the note directly from the Keyboard, by holding down the [SF6] button and pressing the desired key.

### MIDI Transmit Switch Settings—[F3] Tx Switch (Transmit Switch)

#### MIDI Transmit Switch for the Voice related messages—[SF1] Program

From this display, you can determine whether or not MIDI messages controlling Voice selection for each Zone are transmitted to the internal/external tone generator.



Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

**1 Int Bank Select (Internal Bank Select)**

Determines whether or not to transmit Bank Select MSB/LSB messages to the internal tone generator.

**2 Int Prog Change (Internal Program Change)**

Determines whether or not to transmit Program Change messages to the internal tone generator.

**3 Ext Bank Select (External Bank Select)**

Determines whether or not to transmit Bank Select MSB/LSB messages to the external tone generator via MIDI.

**4 Ext Prog Change (External Program Change)**

Determines whether or not to transmit Program Change messages to the external tone generator via MIDI.

**MIDI Transmit Switch for the Other messages —[SF2] Control**

From this display, you can determine whether or not MIDI messages controlling non-Voice-related settings such as Control Change, Pitch Bend and Channel Aftertouch are transmitted to the internal/external tone generator.

	Zone 1	Zone 2	Zone 3	Zone 4
1 Pitch Bend	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 Ch After Touch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 Modulation Wheel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4 Ribbon Controller	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 Foot Controller 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6 Foot Controller 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7 Sustain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8 Foot Switch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9 Knob	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10 Slider	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11 A. Function 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12 A. Function 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
13 Volume/Express	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
14 Pan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

When you wish to transmit a certain MIDI message from a certain Zone to the internal/external tone generator, checkmark the corresponding box.

**1 Pitch Bend**

MIDI messages generated by using the Pitch Bend Wheel.

**2 Ch After Touch (Channel After Touch)**

MIDI messages generated by pressing and holding a note on the keyboard.

**3 Modulation Wheel**

MIDI messages generated by using the Modulation Wheel.

**4 Ribbon Controller**

MIDI messages generated by using the Ribbon Controller.

**5 Foot Controller 1**

**6 Foot Controller 2**

MIDI messages generated by using the optional Foot Controller connected to the rear panel.

**7 Sustain**

MIDI messages generated by using the optional Footswitch connected to the SUSTAIN jack on the rear panel.

**8 Foot Switch**

MIDI messages generated by using the optional Footswitch connected to the ASSIGNABLE jack on the rear panel.

**9 Knob**

MIDI messages generated by using the Knobs.

**10 Slider**

MIDI messages generated by using the Sliders.

**11 A. Function 1 (Assignable Function 1)**

**12 A. Function 2 (Assignable Function 2)**

MIDI messages generated by using the ASSIGNABLE FUNCTION buttons.

**13 Volume/Express (Expression)**

MIDI Volume messages generated by using the Knobs and Sliders.

**14 Pan**

MIDI Pan messages generated by using the Knobs and Sliders.

**Default Settings for each Zone—[F4] Preset**

From this display you can make the Voice-related settings for each Zone which will be transmitted as MIDI messages automatically when the Master is selected.

	Zone 1	Zone 2	Zone 3	Zone 4
1 Bank MSB	000	000	000	000
2 Bank LSB	000	000	000	000
3 Program Change	001	001	001	001
4 Volume	100	100	100	100
5 Pan	C	C	C	C

**1 Bank MSB (Bank Select MSB)**

**2 Bank LSB (Bank Select LSB)**

**3 Program Change**

Determines the Voice-related settings for each Zone in the selected Master. These MIDI messages are transmitted to an external/internal tone generator when the Master is selected.

**Settings:**

Bank MSB (Bank Select MSB): 000 – 127

Bank LSB (Bank Select LSB): 000 – 127

Program Change: 001 – 128

**4 Volume**

Determines the Volume settings for each Zone in the selected Master. The MIDI messages of the Volume are transmitted to an external/internal tone generator when the Master is selected.

**Settings:** 000 – 127

**5 Pan**

Determines the Pan settings for each Zone in the selected Master. The MIDI messages of the Pan are transmitted to an external/internal tone generator when the Master is selected.

**Settings:** L64 – C – R63

**6 [F6] MIDI Send**

When set to “on,” changing the value in this display transmits the corresponding MIDI messages to an external/internal tone generator.

**Knob and Slider Settings—[F5] KnobSlider**

From this display, you can determine which Control Change numbers are transmitted to an external/internal tone generator when you use the Knobs and Sliders for each Zone.

	Zone 1	Zone 2	Zone 3	Zone 4
Control Knob No.	18	18	18	18
Function Name	Pan	Pan	Pan	Pan
Control Slider No.	07	07	07	07
Function Name	Volume	Volume	Volume	Volume

**NOTE** This parameter is available only when the Knob Control Assign parameter is set to “zone” in the Other display (page 214) of the Common Edit. In other words, this parameter is available only when all the lamps of the [SELECTED PART CONTROL] and [MULTI PART CONTROL] are turned off.

**1 Control Knob No.**

Determines which Control Change numbers are transmitted when you use the Knobs for each Zone. The function name is automatically shown below the number you select.

**Settings:** 0 – 95

**2 Control Slider No.**

Determines which Control Change numbers are transmitted when you use the Control Sliders for each Zone. The function name is automatically shown below the number you select.

**Settings:** 0 – 95

## Master Job

The Master Job mode features convenient data initialization and archiving tools. To enter the Master Job mode, press the [JOB] button in the Master mode. Press the [EXIT] button to return to the original display.

**Master Job Procedure**

- 1 In the Master mode, press the [JOB] button to enter the Master Job mode.**
- 2 Select the Job you wish to execute by pressing the [F1] or [F4] button.**
- 3 Set the parameters for executing the Job.**
- 4 Press the [ENTER] button. (The display prompts you for confirmation.)**  
To cancel the Job, press the [DEC/NO] button.
- 5 Press the [INC/YES] button to execute the Job.**  
After the Job has been completed, a “Completed” message appears and operation returns to the original display.
- 6 Press the [MASTER] button to return to the Master Play display.**

**Initializing the Master—[F1] Init**

This function lets you reset (initialize) all Master parameters to their default settings. It also allows you to selectively initialize certain parameters, such as Common settings and Zone settings.

**1 All Parameters**

Determines whether or not all settings for the selected Master are initialized. When set to “on,” other parameters in this display cannot be set.

**Settings:**  (on),  (off)

**2 Common**

Determines whether or not all Common parameter settings for the selected Master are initialized. When set to “on,” ZONE cannot be set.

**Settings:**  (on),  (off)

**3 Zone**

Determines whether or not all Zone parameter settings for the selected Master are initialized. When set to “on,” executing the Job initializes all the parameter settings of Common Edit.

**Settings:**  (on),  (off)

**4 Initialize Type**

Determines how the Zone parameter settings for the selected Master are initialized. Three methods of Initializing are available.

**Settings:** split, zone, layer

**split**

Sets the Zone 1 and Zone 2 to on, then splits the keyboard range using Zone 1 and Zone 2. “Upper Ch” determines the MIDI transmit channel of the upper range of the keyboard, “Lower Ch” determines the MIDI transmit channel of the lower range of the keyboard, and “Split Point” determines the note (C -2 – G8) number which separates the upper range and lower range of the keyboard.

**zone**

Sets Zones 1 – 4 to on, Zones 5 – 8 to off, and the MIDI Transmit Channels to 1 – 8 respectively.

**layer**

Sets the Zone 1 and Zone 2 to on, then lets you layer two Parts. “Upper Ch” and “Lower Ch” determine the MIDI transmit channels of the two Zones respectively.

**5 Upper Ch (Upper Channel)****6 Lower Ch (Lower Channel)**

Determines the MIDI transmit channels of Zone 1 and Zone 2 respectively when the Initialize Type is set to “layer” or “split.”

**Settings:** 1 – 16

**7 Split Point**

Determines the Split Point that divides the keyboard into the Zone 1 and Zone 2 when the Initialize Type is set to “split.” By setting this parameter, the Note Limit High of Zone 1 is automatically set to the note one semitone lower than the Split Point set here and the Note Limit Low of Zone 2 is automatically set to the note same as the Split Point set here.

**Settings:** C -2 – G8

**NOTE** The Note Limit High and Note Limit Low parameters can be set in the Note display (page 215) of the Zone Edit.

**Transmitting the Master Settings to an external MIDI device (Bulk Dump)**

This function lets you send all your edited parameter settings for the currently selected Master to a computer or another MIDI device for data archiving. Press the [ENTER] button to execute the Bulk Dump.

**NOTE** The Bulk Dump data includes only the MIDI messages and does not include the Waveforms.

**NOTE** In order to execute Bulk Dump, you will need to set the correct MIDI Device Number. For details, see page 228.

# System Settings (Utility mode, etc.)

In the Utility mode, you can set parameters that apply to the entire system of the MOTIF XF. To enter the Utility mode, press the [UTILITY] button. Pressing the [EXIT] button returns to the original display. For system settings related to the sequencer in Song/Pattern/Arpeggio playback, call up the Sequencer Setup display by pressing the [SEQ SETUP] button in the Song/Pattern/Performance mode.

## Basic Procedure in the Utility mode

### 1 Enter the Utility mode.

Press the [UTILITY] button to enter the Utility mode. (The indicator lights.)

### 2 Call up the desired display.

Note the tab menus of the [F1] – [F6] and [SF1] – [SF5] buttons to find the desired function, then press the relevant button to call up the desired display.

### 3 Set the desired parameter.

Move the cursor to each parameter, then set the value by using the data dial, [INC/YES] and [DEC/NO] button.

#### NOTICE

When “Press [ENTER] to set” is shown on the display, make sure to press the [ENTER] button before going to the next step. If you do not, the settings will not be stored, even if you press the [STORE] button in the next step.

### 4 Press the [STORE] button to store the Utility setting and Sequencer Setup to internal memory.

#### NOTICE

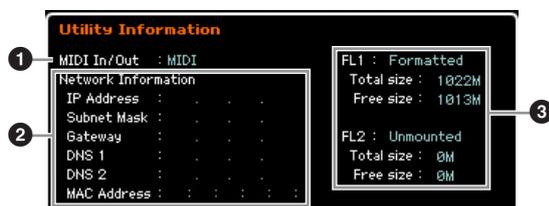
All Utility settings will be lost when the power is turned off without storing.

**NOTE** The parameter settings in the Utility displays and Sequencer Setup displays are treated and stored as a single unit. This means that when you execute the Store operation in the Utility mode, the settings in the Sequencer Setup displays are also stored, and vice versa.

### 5 Press the [EXIT] button to exit from the Utility mode to the original mode.

## System Information—[SF6] INFO

This display indicates the MIDI IN/OUT settings and Network settings. This display cannot be edited.



### 1 MIDI IN/OUT (Indication only)

Indicates the hardware terminal via which the MIDI data is input or output. The related parameters can be set in the MIDI display (page 228).

### 2 Network Information

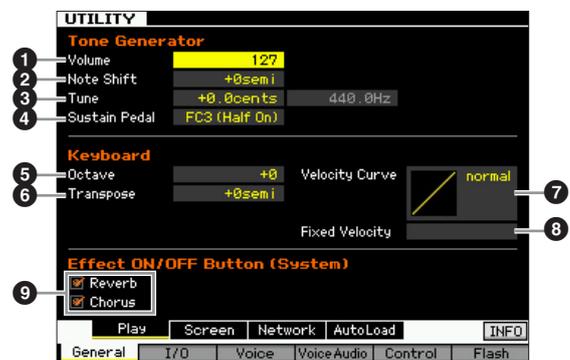
Indicates the network settings. The related parameters can be set in the Network display (page 221).

### 3 FL1/FL2 (indication only)

Indicates whether or not the optional Flash Memory Expansion Module FL512M/FL1024M has been installed. In addition, when installed, this section indicates the memory size and information whether or not the Module has already been formatted.

## General Settings—[F1] General

### Tone Generator and Keyboard settings —[SF1] Play



### Tone Generator

From this section, you can make overall settings for the internal tone generator. The settings here only affect the internal tone generator block. The MIDI output will not be affected.

#### 1 Volume

Determines the overall volume of the instrument.  
**Settings:** 0 – 127

#### 2 Note Shift

Determines the amount (in semitones) by which the pitch of all notes is shifted.  
**Settings:** -24 semi – +0 semi – +24 semi

### 3 Tune

Determines the fine tuning of the overall sound. You can adjust the tuning in cent increments.

**Settings:** -102.4 cents – +0 cents – +102.3 cents

### 4 Sustain Pedal

Determines which model of an optional Foot Controller connected to the FOOT SWITCH SUSTAIN jack is recognized. When you connect an optional FC3 (equipped with the half-damper feature) for producing a “half-damper” effect (as on a real acoustic piano), set this parameter to “FC3 (half on)” and set the Half Damper Switch parameter to “on” in the Amplitude EG display (page 80) of Voice Element Edit. If you don’t need or want to disable the half-damper feature and still use an FC3, set this parameter to “FC3 (half off).” When you connect an optional FC4 or FC5 (which is not equipped with the half-damper feature), set this parameter to “FC4” or “FC5.”

**Settings:** FC3 (half on), FC3 (half off), FC4/5

**NOTE** Note that this setting is not necessary when controlling the half-damper feature via Control Change messages from an external MIDI device to the instrument.

### Keyboard

From this section, you can set the keyboard-related parameters. The settings here affect the MIDI messages generated by playing the keyboard.

### 5 Octave

Determines the amount in octaves by which the range of the keyboard is shifted up or down. This setting can be changed also by pressing any of the OCTAVE buttons.

**Settings:** -3 – +0 – +3

### 6 Transpose

Determines the amount in semitones by which the range of the keyboard is shifted up or down.

**Settings:** -11 semi – +0 semi – +11 semi

**NOTE** If you transpose beyond the note range limits (C -2 and G8), notes in the adjacent octaves will be used.

### 7 Velocity Curve

The five curves determine how the actual velocity will be generated and transmitted according to the velocity (strength) with which you play notes on the keyboard. The graph shown in the display indicates the velocity response curve. (The horizontal line represents the received velocity values (strength of your playing), while the vertical line represents the actual velocity values transmitted to the internal/external tone generators.)

**Settings:** normal, soft, hard, wide, fixed

**normal**

This linear “curve” produces one-to-one correspondence between the strength of your keyboard playing (velocity) and the actual sound change.

**soft**

This curve provides increased response, especially for lower velocities.

**hard**

This curve effectively lessens the overall response compared to the “norm” curve.

**wide**

This setting provides opposite response curves for lower and higher velocities. It widens the apparent dynamic range of the controller, producing less sound change in the softer range and more change in the higher range.

**fixed**

This setting produces the same amount of sound change (set in Fixed Velocity below), no matter what your playing strength.

### 8 Fixed Velocity

This parameter is available only when you select the “fixed” Velocity Curve above. The velocity of the note you play is fixed at the value set here.

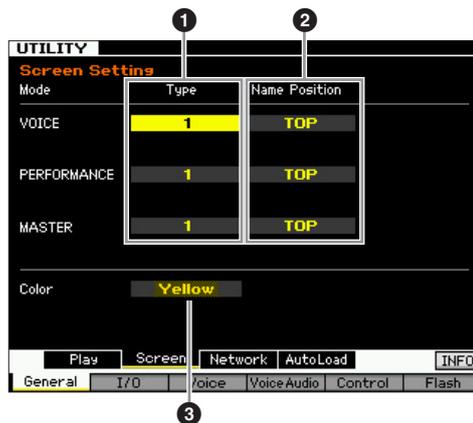
**Settings:** 1 – 127

### 9 Effect ON/OFF Button (System)

Determines whether or not the System Effects (Reverb and Chorus) are actually applied when the EFFECT ON/OFF [SYSTEM] button is turned on.

## Changing the design type of the LCD display—[SF2] Screen

From this display, you can change the design type of the Top display in the Voice/Performance/Master mode as desired.



#### 1 Type

When “1” is selected, the Top display of each mode will indicate the current status of the Knob/Slider, etc.

When “2” is selected, the Top display of each mode will indicate the on/off status of each Element/Part, status of the panel controllers and the status of the current Arpeggio, etc.

**Settings:** 1, 2

#### 2 Name Position

When “Top” is selected, the number/name of the program (Voice, Performance or Master) is shown at the top of the display.

When “Bottom” is selected, the number/name of the program (Voice, Performance or Master) is shown at the bottom of the display.

**Settings:** Top, Bottom

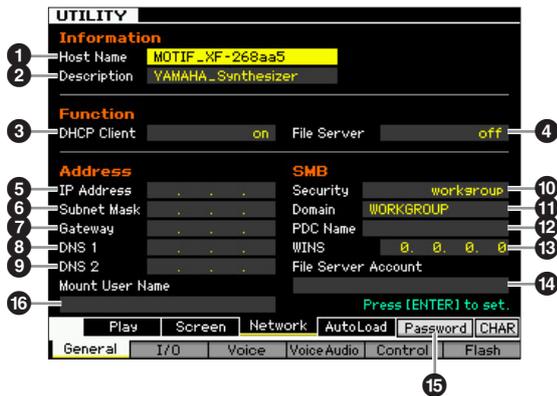
### 3 Color

Determines the color types commonly for the three modes.

**Settings:** Red, Pink, Purple, Blue, Aqua, Green, Yellow, White

## Network Settings—[SF3] Network

From this display, you can set parameters for connecting the MOTIF XF to the network system via the ETHERNET connector. Make sure to press the [ENTER] button after setting in this display. If you do not, the settings will not be stored, even if you press the [STORE] button.



### 1 Host Name

Determines the Host Name (NetBIOS name) of the MOTIF XF. This is used when accessing the MOTIF XF from a computer connected to the network. Set a unique Host Name that will not conflict with any other computer. In general, the default Host Name will suffice, so there should be no need to change this. For detailed instructions on naming, see page 37.

### 2 Description

Here, you can input a short summary or memo about your MOTIF XF. The description input here can be browsed from the other computer connected to the network. This is useful when several MOTIF XFs are connected to the same network. In general, the default Description will suffice, so there should be no need to change this. For detailed instructions on inputting a character, see page 37.

### 3 DHCP Client

Determines whether or not the MOTIF XF is handled as the client device of the DHCP server. When this is set to “on,” the MOTIF XF is handled as a client device of the DHCP server. The DHCP (Dynamic Host Configuration Protocol) is a standard or protocol by which IP addresses and other low-level network configuration information can be dynamically and automatically assigned each time your MOTIF XF is connected to the network. If the DHCP server covers the network, set this parameter to “on.” If you wish to set a specific IP address or there is no DHCP server, set this parameter to “off.”

**Settings:** on, off

### 4 File Server

Determines whether the File Server function of the MOTIF XF is active or not. When this parameter is set to “on,” the another computer on the same network can access files on the USB storage device connected to the USB TO DEVICE connector of the MOTIF XF.

**Settings:** on, off

**NOTE** Make sure to set the Password (15) of this instrument before setting this parameter to “on.” If this is set to “on” before the Password is set, “Password is unspecified” appears.

### 5 IP Address

Determines the IP Address, a string of numbers assigned to each computer or your MOTIF XF connected to a network, indicating the device’s location on the network. When the MOTIF XF is connected to the network which the DHCP server covers and the DHCP Client parameter above is set to “on,” this parameter is automatically set, and you will not need to input it manually. When the DHCP Client (3) is set to “off” and you do not know how to set this parameter, consult your network administrator or Internet provider.

**Settings:** 0 – 255

### 6 Subnet Mask

Indicates the Subnet Mask, a setting used to divide a large-scale network into several smaller networks. When the MOTIF XF is connected to the network which the DHCP server covers and the DHCP Client parameter above is set to “on,” this parameter is automatically set resulting that you need not input here. When the DHCP Client (3) is set to “off” and you do not know how to set this parameter, consult your network administrator or Internet provider.

**Settings:** 0 – 255

### 7 Gateway

Determines the Gateway, a system which links different networks or systems, and makes possible data transfer and conversion despite differing communications standards. When the MOTIF XF is connected to the network which the DHCP server covers and the DHCP Client parameter above is set to “on,” this parameter is automatically set, and you will not need to input it manually.

**Settings:** 0 – 255

### 8 DNS1 (Domain Name Server1)

### 9 DNS2 (Domain Name Server2)

Determines the address for the Domain Name server. Up to two servers (primary DNS1 and secondary DNS2) can be set. When you do not use the Domain Name server, set both of the DNS1 and DNS2 to “0.0.0.0.” When you use only the DNS1, set the DNS2 to “0.0.0.0.” When the MOTIF XF is connected to the network which the DHCP server covers and the DHCP Client parameter above is set to “on,” this parameter is automatically set, and you will not need to input it manually.

**Settings:** 0 – 255

**10 Security**

Determines the certification type when another computer on the network accesses the MOTIF XF. If you wish to certificate the computer by using the Account (14) and password, set this parameter to "workgroup." If you wish to certificate the computer by using the domain controller on the network, set this parameter to "domain."

**Settings:** domain, workgroup

**11 Domain**

Enters the Domain name or Workgroup name. Input the Domain name or Workgroup name to the same name as that of the online device you wish to use for accessing the MOTIF XF. For detailed instructions on inputting characters, see page 37.

**12 WINS**

Determines the address for the WINS (Windows Internet Name Service) server. When the PDC Name (13) is set to the Host name (NetBIOS name), you will set the address of the WINS server. If you are not using the WINS server, set this parameter to "0.0.0.0."

**Settings:** 0 – 255

**13 PDC Name (Primary Domain Controller Name)**

Determines the Host name (NetBIOS name) of the Domain Controller or IP address on the network. When the Security (10) is set to "domain," the certification will be executed by using the Domain Controller set here.

**14 File Server Account**

Determines the account name (user name) used when another computer on the network accesses the MOTIF XF. For detailed instructions on inputting characters, see page 37.

**NOTE** The account is not set by default. When no account is set, the MOTIF XF can be accessed by the account named "nobody."

**15 [SF5] Password**

Pressing this button calls up the Password display that lets you set or change the password necessary for accessing the MOTIF XF from an online device connected to the network. When shipped from the factory, the password is not set. Make sure to set the password if you wish to access the MOTIF XF from an external computer via the LAN network.

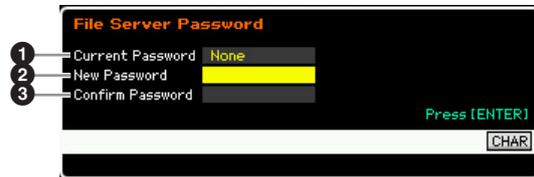
**16 Mount User Name**

Determines the User Name necessary for accessing the computer on the network. By storing this parameter to the MOTIF XF, the User Name will be shown automatically on the dialog (page 43) appearing when you log in to the computer.

## Password Settings

### [SF3] → [SF5] Password

From this display, you can set the password of the MOTIF XF. By using the password set here, external online devices can access the File mode of the MOTIF XF.

**1 Current Password**

This column is provided for inputting the current password. The password can be up to eight characters and no less than five characters. For detailed instructions on inputting characters, see page 37. "None" is shown when the password is not set.

**2 New Password**

This column is provided for inputting the new password. The password can be up to eight characters and no less than five characters. For detailed instructions on inputting characters, see page 37.

**3 Confirm Password**

This column is provided for inputting the new password once again to confirm it. The password can be up to eight characters and no less than five characters. For detailed instructions on inputting characters, see page 37.

**Password Setting**

After inputting the Current Password, New Password and Confirm Password (New Password), press the [ENTER] button to set the New Password. If an error occurs, one of the following error messages will be shown on the display.

**Password is invalid.**

The password you input to "Current Password" is wrong. Input the correct password again.

**Confirmed password is invalid.**

The password you input to "Confirm Password" is not same as the password you input to "New Password."

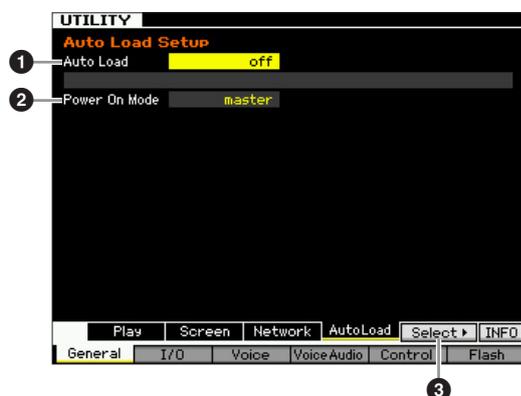
**Password is too short.**

The password you input to "New Password" is too short. Input the password again, using five or more characters.

**NOTE** If you forget the current password, execute the Factory Set Job (page 231) to reset the password setting, then input the new password again.

## Setting the default display when turning the power on—[SF4] Auto Load

From this display, you can specify certain automatic tasks that the MOTIF XF will perform when power is turned on.



### 1 Auto Load

Determines whether the Auto Load function is on or off. When this is on, the instrument will automatically load the specified files (from the USB storage device) to User memory—whenever the power is turned on. The file to be loaded is shown on this display. The file to be loaded can be specified via the [SF5] Get button.

**Settings:** on, off

### 2 Power On Mode

This determines the default power-on mode (and memory bank)—letting you select which condition is automatically called up when you turn the power on.

**Settings:**

performance

When turning the power on next time, the Performance Play mode is entered and the first program number (USER: 001) is selected automatically.

voice (USER1)

When turning the power on next time, the Voice Play mode is entered and the first program number of User Voices (USR: 001) is selected automatically.

voice (PRE1)

When turning the power on next time, the Voice Play mode is entered and the first program number of Preset Voices (PRE: 001) is selected automatically.

voice (GM)

When turning the power on next time, the Voice Play mode is entered and the first program number of Preset GM Voices (GM: 001) is selected automatically.

master

When turning the power on next time, the Master Play mode is entered and the first program number (001) is selected automatically.

**NOTE** Make sure to store the Utility settings to the internal memory by pressing the [STORE] button before turning the power off. Please keep in mind that the Utility settings will be lost if you turn off the power without executing the Store operation.

### 3 [SF5] Select

Pressing this button calls up the Select Auto Load File display. From this display you can specify the file (in the external storage device) to be loaded automatically when turning the power on (when Auto Load is set to on).

## Specifying the Auto Load File [SF4] → [SF5] Select

From this display you can specify the file (in the external storage device) to be loaded automatically when turning the power on (when Auto Load is set to on). Move the cursor to the desired file then press the [ENTER] button to determine the Auto Load File.



Parameters 1 – 4 are the same as the ones in the File window (page 237) of the File mode.

## Audio In/Out Settings—[F2] I/O (Input/Output)

From this display you can set Audio In/Out parameters.



### 1 Mic/Line

When using the A/D INPUT jacks, this determines the input source, microphone (mic) or line.

**Settings:** mic, line

mic

Intended for low output equipment, such as a microphone, electric guitar or bass.

line

Intended for high output equipment, such as a keyboard, synthesizer, or CD player.

### 2 L&R Gain

Determines the output gain of the OUTPUT L/MONO and R jacks.

**Settings:** 0dB, +6dB

### 3 Assign L&R Gain

Determines the output gain of the ASSIGNABLE OUTPUT L and R jacks.

**Settings:** 0dB, +6dB

### 4 – 10 FW Gain

Determines the output gain of the IEEE1394 connector.

**Settings:** 0dB, +6dB

### 11 FW Monitor Setup

Determines the audio signal flow for monitoring the sound when using the MOTIF XF with DAW software installed on a computer connected to the MOTIF XF via an IEEE1394 cable.

**NOTE** You will need to properly set up the DAW software in addition to making the settings here. For details, refer to the manual of the DAW software.

**Settings:** stand alone, with PC, with PC (DirectMonitor)

**stand alone**

This should be selected when you are using the MOTIF XF alone or are not using the DAW software even with a computer connected to the MOTIF XF via an IEEE1394 cable. When this is selected, the audio signal of the MOTIF XF will be output directly via the OUTPUT L/MONO and R jacks normally.

**with PC**

This should be selected when you are using the MOTIF XF as an audio device with the DAW software. When this is selected, the audio signal of the MOTIF XF will be output to the DAW software on a computer via an IEEE1394 cable, merged and mixed with the DAW sound, returned back to the MOTIF XF, then output via the OUTPUT L/MONO and R jacks. Selecting this allows you to apply VST Effects within the DAW software to the MOTIF XF sound.

**with PC (DirectMonitor)**

This should be selected when recording your keyboard performance to the DAW software on the computer. The audio signal of the MOTIF XF will be output directly via the OUTPUT L/MONO and R jacks with the audio signal sent from the DAW software via an IEEE1394 cable. Keep in mind that the Rec Monitor of the DAW software should be set to “off” in order to prevent “double” sound from occurring.

**NOTE** When “with PC” is selected, there may be a short delay between when you play the keyboard and when you hear the resulting sound.

**NOTE** Set this parameter to “stand alone” when the MOTIF XF is not connected to an external device via an IEEE1394 cable.

## System Settings for the Voice mode—[F3] Voice

From the following displays, you can set parameters related to the Master Effect, Master EQ, Audio Input part, and Micro Tuning in the Voice mode. These settings will be applied to all Voices. The following displays are available only when entering the Utility mode from the Voice mode.

### Master Effect Settings—[SF1] MasterFX (Master Effect)

This display lets you set Master Effect parameters in the Voice mode. This display can be called up by pressing and holding the [MASTER EFFECT] button on the front panel in the Voice mode.



#### 1 Switch

Determines whether the Master Effect is applied or not to the Voice. When this is set to on, entering the Voice mode turns the [MASTER EFFECT] lamp on.

**Settings:** on, off

Other parameters are same as the ones on the Master Effect display (page 104) in the Performance Common Edit mode.

### Master EQ settings—[SF2] MasterEQ

This display lets you set Master EQ parameters in the Voice mode, allowing you to control EQ over five independent frequency bands. This EQ affects all Voices. This display is available only when entering the Utility mode from the Voice mode.



The function is same as the one on the Master EQ display (page 105) in the Performance Common Edit mode.

## Arpeggio Settings—[SF3] Arpeggio

From this display you can set parameters related to output of the Arpeggio MIDI data in the Voice mode. The settings here affect all Voices. This display is available only when entering the Utility mode from the Voice mode.



### 1 ARP MIDI Out Switch

When this is set to on, Arpeggio playback data is output from the MIDI terminal.

**Settings:** on, off

### 2 ARP Transmit Ch (Arpeggio Transmit Channel)

Determines the MIDI transmit channel through which Arpeggio playback data will be sent (when the Switch parameter above is set to on).

**Settings:** 1 – 16

## Creating your original Micro Tuning—[SF4] Tuning

From this display, you can create your original Micro Tuning in the User Bank. You can copy a Micro Tuning to another number, then create new one based on it. This display is available only when entering the Utility mode from the Voice mode.



### 1 Micro Tuning No.

Determines the destination to which the created Micro Tuning setting is stored.

**Settings:** 1 – 8

### 2 Micro Tuning Name

Enters the desired name for the Micro Tuning. For detailed instructions on naming, see page 37.

### 3 Tuning Offset

Lets you tune the individual notes of the keyboard in cents to create your original Micro Tuning.

**Settings:** -99 – +0 – +99 cents

## [SF5] Copy

From this display called up via this button, you can copy a Micro Tuning to another number then create a new Micro Tuning based on it.

### Micro Tuning Copy Procedure

- 1 Select a Micro Tuning number as source.
- 2 Press the [SF5] button to call up the Copy display.
- 3 Select a Micro Tuning number as destination.
- 4 Press the [ENTER] button to execute the Copy operation.

## Audio Input Settings in the Voice mode—[F4] VoiceAudio

You can set parameters related to audio input signal from the [A/D INPUT] connector and the IEEE1394 connector in the Voice mode. This display is available only when entering the Utility mode from the Voice mode.

**NOTE** The FW settings (FW1 – 14) are available only when the optional FW16E is installed.

### Output Settings—[SF1] Output

From this display you can set various parameters of the Audio Input signal in the Voice mode, such as Output jacks, Volume, Pan, and Effect depth. This display is available only when entering the Utility mode from the Voice mode.



#### 1 Volume

Determines the output level of the Audio Input Part.

**Settings:** 0 – 127

#### 2 Pan

Determines the stereo pan position of the Audio Input Part.

**Settings:** L63 (far left) – C (center) – R63 (far right)

#### 3 Mono/Stereo

Determines the signal configuration for the Audio Input Part, or how the signal or signals are routed (stereo or mono).

**Settings:** stereo, L mono, R mono, L+R mono

stereo

Both the L and R channels of the audio input are used.

L mono

Only the L channel of the audio input is used.

R mono

Only the R channel of the audio input is used.

L+R mono

The L and R channels of the audio input are mixed and processed in mono.

#### 4 Output Select

Determines the output jack assignment for the Audio Input Part.

**Settings:** See the table below.

LCD	Output jacks	Stereo/Mono
L&R	OUTPUT L and R	Stereo
asL&R	ASSIGNABLE OUTPUT L and R	Stereo
FW1&2	FW OUTPUT 1 and 2	Stereo (1: L, 2: R)
FW3&4	FW OUTPUT 3 and 4	Stereo (3: L, 4: R)
FW5&6	FW OUTPUT 5 and 6	Stereo (5: L, 6: R)
FW7&8	FW OUTPUT 7 and 8	Stereo (7: L, 8: R)
FW9&10	FW OUTPUT 9 and 10	Stereo (9: L, 10: R)
FW11&12	FW OUTPUT 11 and 12	Stereo (11: L, 12: R)
FW13&14	FW OUTPUT 13 and 14	Stereo (13: L, 14: R)
asL	ASSIGNABLE OUTPUT L	Mono
asR	ASSIGNABLE OUTPUT R	Mono
FW1	FW OUTPUT 1	Mono
:	:	:
FW14	FW OUTPUT 14	Mono
ins L (A/D Input only)	Internal Vocoder module	Mono

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

#### 5 Reverb Send

Determines the Send level of the Audio Input Part signal sent to the Reverb effect. The higher the value, the more pronounced the Reverb.

**Settings:** 0 – 127

#### 6 Chorus Send

Determines the Send level of the Audio Input Part signal sent to the Chorus effect. The higher the value, the more pronounced the Chorus.

**Settings:** 0 – 127

#### 7 Dry Level

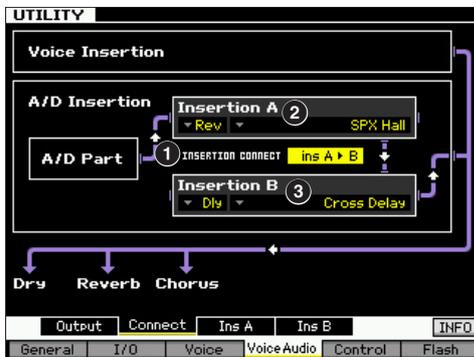
Determines the level of the Audio Input Part which has not been processed with the System Effects (Reverb, Chorus). The higher the value, the less pronounced the Reverb and Chorus.

**Settings:** 0 – 127

**NOTE** The Reverb Send (5), Chorus Send (6), and Dry Level (7) parameters are not available when Output Select (4) is set to the value other than "L&R."

## Insertion Effect Connection Settings— [SF2] Connect

From this display you can set the Insertion Effect connection of the Audio Input signal in the Voice mode. This display is available only when entering the Utility mode from the Voice mode.



### 1 INSERTION CONNECT (Insertion Connection)

Determines the effect routing for Insertion effects A and B. The setting changes are shown on the diagram in the display, giving you a clear picture of how the signal is routed.

**Settings:** Ins A ► B, Ins B ► A

Ins A ► B

Signals processed with Insertion Effect A will be sent to Insertion Effect B and signals processed with Insertion Effect B are sent to Reverb and Chorus.

Ins B ► A

Signals processed with Insertion Effect B will be sent to Insertion Effect A and signals processed with Insertion Effect A are sent to Reverb and Chorus.

### 2 Insertion A (Insertion A Category/Type)\*

### 3 Insertion B (Insertion B Category/Type)\*

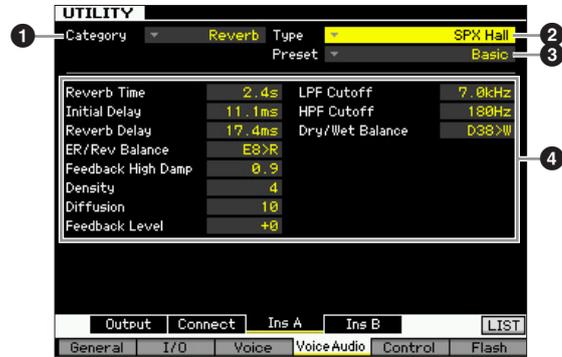
Determines the Effect type for Insertion A and B. From the Category column, you can select one of the Effect Categories, each of which contains similar Effect types. From the Type column, you can select one of the Effect Types listed in the selected Category.

**Settings:** Details about the Effect categories and types are described on page 24.

**NOTE** You can call up the list and select the desired item by pressing the [SF6] LIST button. For details, see page 37.

## Insertion Effect Type Settings—[SF3] Ins A, [SF4] Ins B

From these displays, you can set the Insertion Effect Types applied to the Audio Input signal in the Voice mode. These displays are available only when entering the Utility mode from the Voice mode.



**NOTE** Depending on the selected parameter, the LIST icon is shown at the tab menu corresponding to the [SF6] button. In this condition, you can call up the list by pressing the [SF6] LIST button, then select the desired item from the list. For details, see page 37.

### 1 Category

### 2 Type

From the Category column, you can select one of the Effect Categories, each of which contains similar Effect types. From the Type column, you can select one of the Effect Types listed in the selected Category. Details about the Effect categories are described on page 24.

### 3 Preset

This lets you call up pre-programmed settings for each Effect Type, designed to be used for specific applications and situations.

### 4 Effect Parameters

The number of parameters and values available differs depending on the currently selected effect type. Refer to page 27 for details about the Effect parameters. Refer to the separate Data List for information on the parameters for each Effect type.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

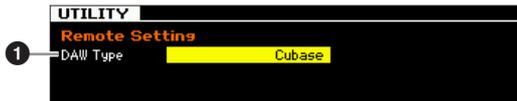
Reference

## Remote Control and MIDI settings —[F5] Control

From the following displays, you can set parameters related to the Remote Control function and MIDI settings.

### DAW Settings—[SF1] Remote

Lets you specify the DAW software to be controlled by the MOTIF XF.



#### 1 DAW Type

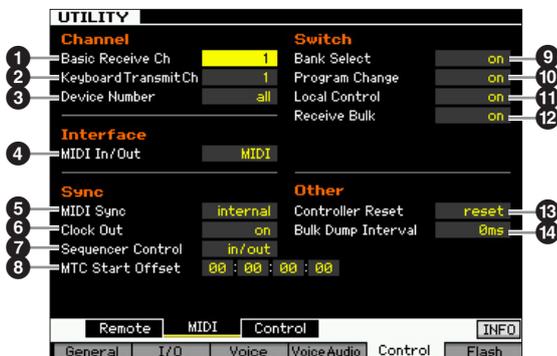
Determines the DAW software to be controlled by the MOTIF XF.

**Settings:** Cubase, Logic, Sonar, Digital Performer

**NOTE** When the [REMOTE ON/OFF] lamp is turned on, simply selecting a DAW type calls up the Remote settings automatically.

### MIDI Settings—[SF2] MIDI

From this display, you can set the MIDI related parameters.



#### 1 Basic Receive Ch

Determines the MIDI receive channel when this synthesizer is set to single-timbre tone generator mode (Voice/Performance modes).

**Settings:** 1 – 16, omni, off

omni

When this is selected, all channel messages are received.

**NOTE** In the multi-timbral tone generator mode (Song/Pattern modes), each Mixing Part receives MIDI data according to its assigned MIDI receive channel. This can be set in the Voice display (page 194) of the Mixing Part Edit mode.

#### 2 Keyboard Transmit Ch

Determines the MIDI channel over which the instrument sends MIDI data (to an external sequencer, tone generator, or other device). This parameter is available in the single-timbre tone generator mode (Voice/Performance modes).

**Settings:** 1 – 16, off

**NOTE** In the Song/Pattern mode, the MIDI data created by playing the keyboard/knobs/wheels is sent to the tone generator block or the external MIDI devices via the MIDI output channel of the currently selected track. The Output Channels of each track can be set in the Output Channel display (page 142) of the Song Play mode.

#### 3 Device Number

Determines the device number used by this synthesizer in receiving or transmitting data. This number must match the Device Number of the external MIDI device when transmitting/receiving bulk data, parameter changes or other system exclusive messages.

**Settings:** 1 – 16, all, off

all

When this is selected, system exclusive messages for all MIDI device numbers are received. When system exclusive messages such as bulk dump are transmitted from the MOTIF XF with this setting, the MOTIF XF is recognized as Device Number 1.

off

When this is selected, system exclusive messages such as bulk dump and parameter change cannot be transmitted or received. When you try execute transmission or reception of system exclusive messages, an error message appears.

#### 4 MIDI In/Out

Determines which physical output/input terminal(s) will be used for transmitting/receiving MIDI data.

**Settings:** MIDI, USB, FW (available only when the optional FW16E is installed)

**NOTE** The three terminal types above cannot be used at the same time. Only one of them can be used to transmit/receive MIDI data.

#### 5 MIDI Sync

Determines whether Song/Pattern/Arpeggio playback will be synchronized to the instrument's internal clock or an external MIDI clock.

**Settings:** Internal, MIDI, auto, MTC

internal

Synchronization to internal clock. Use this setting when this synthesizer is to be used alone or as the master clock source for other equipment.

MIDI

MIDI Synchronization to a MIDI clock received from an external MIDI instrument via MIDI.

auto

When MIDI clock is transmitted continuously from an external MIDI device or computer, the internal clock of the MOTIF XF is not effective and the MOTIF XF is synchronized with the external clock. When MIDI clock is not transmitted from the external MIDI device or computer, the internal clock of the MOTIF XF continues to run in sync with the latest received tempo of the external MIDI device or computer (DAW software). Note that the tempo cannot be changed on the MOTIF XF when this value is selected. This setting is useful when you wish to alternate between external clock and internal clock.

MTC (MIDI Time Code)

Synchronization to an MTC signal received via MIDI. MMC signals are transmitted via MIDI. Use this setting when this synthesizer is to be used as a MIDI slave, such as when synchronized to an MTC-capable MTR. The MTC Sync function is available only in the Song mode.

**NOTE** When this parameter is set to “MIDI,” make sure that the external MIDI instrument connected to the MOTIF XF will transmit the MIDI clock to the MOTIF XF.

**NOTE** When MIDI Sync is set to “MTC,” Songs and Arpeggios cannot play back in the Song mode but Patterns and Arpeggios can play back in the Pattern mode.

**NOTE** MTC (MIDI Time Code) allows simultaneous synchronization of multiple audio devices via standard MIDI cables. It includes data corresponding to hours, minutes, seconds, and frames. The MOTIF XF does not transmit MTC.

**NOTE** MMC (MIDI Machine Control) allows remote control of multitrack recorders, MIDI sequencers, etc. An MMC-compatible multitrack recorder, for example, will automatically respond to start, stop, fast forward, and fast reverse operations performed on the controlling sequencer, thus keeping playback of the sequencer and multitrack recorder aligned.

## 6 Clock Out

Determines whether MIDI clock (F8H) messages will be transmitted via MIDI.

**Settings:** on, off

## 7 Sequencer Control

Determines whether Sequencer Control signals—start (FAH), continue (FBH), stop (FCH), and song position pointer (F2H)—will be received and/or transmitted via the MIDI OUT/USB terminal.

**Settings:** off, in, out, in/out

off

Not transmitted/recognized.

in

Recognized but not transmitted.

out

Transmitted but not recognized.

in/out

Transmitted/recognized.

## 8 MTC Start Offset (MIDI Time Code Start Offset)

Determines the specific time code point from which sequence playback starts, when MTC is received. This feature can be used to accurately align playback of this synthesizer with an external MTC-compatible device.

**Settings:** Hour: Minute: Second: Frame

Hour: 00 – 23

Minute: 00 – 59

Second: 00 – 59

Frame: 00 – 29

## 9 Bank Select

This switch enables or disables Bank Select messages, both in transmission and reception. When this is set to “on,” this synthesizer responds to incoming Bank Select messages, and it also transmits appropriate Bank Select messages (when using the panel). When this is set to “off,” Bank Select messages cannot be transmitted/received.

**Settings:** off, on

## 10 Program Change

This switch enables or disables Program Change messages, both in transmission and reception. When this is set to “on,” this synthesizer responds to incoming Program Change messages, and it also transmits appropriate Program Change messages (when using the panel). When

this is set to “off,” Program Change messages cannot be transmitted/received.

**Settings:** off, on

## 11 Local Control

This determines whether or not the tone generator of the instrument responds to your keyboard playing. Normally, this should be set to “on”—since you’ll want to hear the sound of the MOTIF XF as you play it. Even if this is set to “off,” the data will be transmitted via MIDI. Also, the internal tone generator block will respond to messages received via MIDI.

**Settings:** off, on

## 12 Receive Bulk

Determines whether or not Bulk Dump data can be received.

**Settings:** protect (not received), on (received)

## 13 Controller Reset

Determines the status of the controllers (Modulation Wheel, Aftertouch, Foot Controller, Breath Controller, Knobs, etc.) when switching between voices. When this is set to “hold,” the controllers are kept at the current setting. When this is set to “reset,” the controllers are reset to the default states (below).

**Settings:** hold, reset

If you select “reset,” the controllers will be reset to the following states/positions:

Pitch Bend	Center
Modulation Wheel	Minimum
Aftertouch	Minimum
Foot Controller	Maximum
Footswitch	Off
Ribbon Controller	Center
Breath Controller	Maximum
Assignable Function	Off
Expression	Maximum
Sustain	Off

## 14 Bulk Dump Interval

Determines the interval time of the Bulk Dump transmission when the Bulk Dump function is used, the Bulk Request is received, or system exclusive messages recorded to a sequence track are played back. The Bulk Dump function lets you save the data in the Edit buffer (DRAM) or Flash ROM and transmit as Bulk data (system exclusive message) to an external MIDI instrument or sequence software on a computer. This data can then be sent back to the instrument, restoring all the settings you archived.

**Settings:** 0 – 900 ms

**NOTE** When the Bulk Dump function is used or the Bulk Request is received, the maximum value of the interval time is fixed to 30ms, meaning that the Bulk transmission is executed at an interval time of 30ms, even if this parameter is set to a value above 31ms. When system exclusive messages recorded to a track of a Song or Pattern are played back, value settings above 31ms will be available, meaning that the Bulk transmission is executed with the interval time as set here, regardless of the tempo setting of the Song or Pattern.

## Controller Settings—[SF3] Control

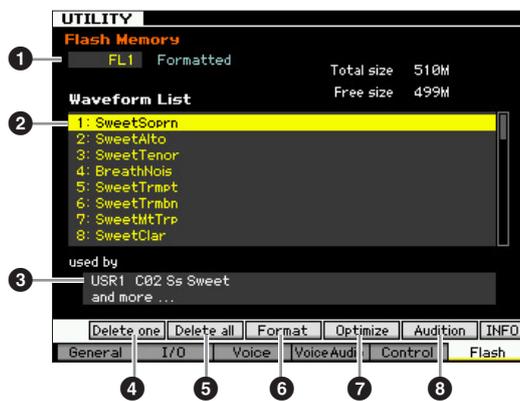


## Controller Assign

You can assign MIDI Control Change Numbers to the controllers and knobs on the front panel. For example, you could use the ASSIGN 1 and 2 knobs to control effect depth, while using the Foot Controller to control modulation. These control assignments are called “Controller Assign.”

## Managing the optional Flash Memory Expansion Module—[F6] Flash

From this display, you can manage the optional Flash Memory Expansion Module (FL512M/FL1024M), using operations such as Format and Optimize.



## 1 Number of the Flash Memory Expansion Module

Determines which module is to be managed. When “FL1” is selected, you can manage the Module installed to Slot 1.

When “FL2” is selected, you can manage the Module installed to Slot 2.

**NOTE** “Unmounted” is shown at right of the slot number on the display if the FL512M/FL1024M has not been installed properly. “Unformatted” is shown if the already-installed FL512M/FL1024M has not been formatted yet. “Formatted” is shown if the already-installed FL512M/FL1024M has been formatted.

## 2 Waveform list

Indicates the Waveforms stored in the Flash Memory Expansion Module of the Slot specified at 1. From this list, you can select the Waveform and hear the sound by pressing the [SF5] Audition button.

## 3 Voice

Indicates the Voice using the Waveform selected at 2. You can check whether the selected Waveform is actually used or not in the Voice. It is a good idea to use this function before executing the Delete operation.

## 4 [SF1] Delete one

Use this button to delete only one Waveform.

After selecting the Slot number at 1, select the Waveform at 2, then press this button to delete the selected Waveform.

## 5 [SF2] Delete all

Use this button to delete all the Waveforms listed on the display.

After selecting the Slot number at 1, press this button to delete all the Waveforms of the selected Module.

## 6 [SF3] Format

Use this button to format the Memory Expansion Memory Module.

Because the FL512M/1024M is not formatted at the time this is shipped from the factory, it is necessary to execute the Format operation.

After selecting the Slot number at 1 to which the new Module is installed, press this button to call up the confirmation dialog, then press the [INC/YES] button to execute the Format operation.

## NOTICE

The Format operation can be applied to the Module which has already been formatted. In this case, note that all the Waveform data including the Samples will be erased.

## 7 [SF4] Optimize

Use this button to optimize the Memory Expansion Memory Module. Optimization consolidates areas of used and unused (available) memory to create the largest possible area of contiguous available memory.

After selecting the Slot number 1, press this button to call up the confirmation dialog, then press the [INC/YES] button to execute the Optimize operation.

## NOTICE

Never turn off the power during the Optimize operation, which may require far more than ten seconds to finish. Doing so will erase and clear the data on the Flash Memory Expansion Module.

## 8 [SF5] Audition

Use this button to hear the sound of the currently selected Waveform.

## Resetting the User Memory to the Initial Factory Settings—[JOB] (Factory Set)

In the Utility Job mode, you can restore this synthesizer's User memory (page 34) to the factory default settings (Factory Set). Please note that the setting of the Power On Auto Factory Set on this display will be stored automatically by executing the Factory Set.

### NOTICE

The Factory Set operation will erase all the data you've created and stored to User Memory, including the Waveform data on the optional Flash Memory Expansion Module FL512M/FL1024M (if installed). To prevent data loss, be sure to save all important data to a USB storage device or to a computer connected to the same network as the MOTIF XF (page 241) before executing the Factory Set operation.



### 1 All

When this is set to on, pressing the [ENTER] button will restore all the data of this synthesizer's User memory (page 34) to the factory default settings (Factory Set).

When this is set to off, pressing the [ENTER] button will restore only the following data to the factory default settings: All the Voices (A01 – H16) of the User Bank 1 (USR1) and Voices A01 – A08 of the User Drum Bank (UDR).

**Settings:** on, off

### 2 Power On Auto Factory Set

When this parameter is set to “on,” turning the power on will restore the User memory to the factory default settings and load the demo songs and demo patterns. Normally, this should be set to “off.”

**Settings:** on, off

### NOTICE

When the Power On Auto Factory Set parameter is set to “on,” turning the power off erases all the User memory data such as Voice, Performance, Song, Pattern and Utility settings.

For instructions on executing the Factory Set Job, refer to the Owner's Manual.

## Sequencer Settings—[SEQ SETUP]

In the Song mode, Pattern mode or Performance mode, pressing the [SEQ SETUP] button calls up the display for setting the overall sequencer parameters. After setting these, press the [STORE] button to store the settings of both the Sequencer Setup parameters and the Utility parameters.

### NOTICE

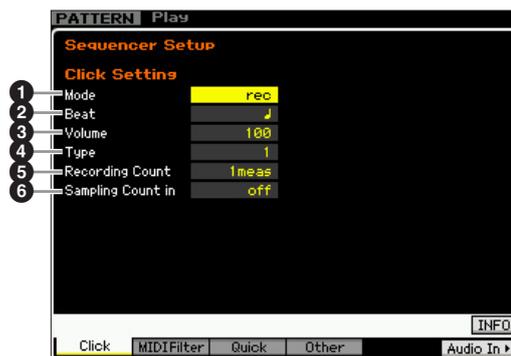
All Sequencer Setup settings will be lost if the power is turned off without storing.

**NOTE** In the Voice mode and Master mode with the Mode parameter (page 214) set to “Voice,” the [SEQ SETUP] button cannot be used.

## Metronome Settings—[F1] Click

From this display you can set the parameters related to the click sound (metronome) that is used during recording or playback in the Song/Pattern/Performance mode.

**NOTE** Since the click sound is created with the internal tone generator, using click playback affects the overall polyphony of this synthesizer.



### 1 Mode

Determines whether and when the metronome click will sound.

**Settings:** off, rec, rec/play, always

off

The click will not sound.

rec

The click will sound during Song/Pattern/Performance recording only.

rec/play

The click will sound during recording and playback.

always

The click will always sound in the Song/Pattern mode.

### 2 Beat

Determines on which beats the metronome click will sound.

**Settings:** ♩ (16th notes), ♪ (8th notes), ♫ (quarter notes), ♮ (half notes), ○ (whole notes)

### 3 Volume

Determines the click sound volume.

**Settings:** 0 – 127

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

#### 4 Type

Determines the click sound type. Ten types are available, including conventional metronome and stick sounds.

**Settings:** 1 – 10

#### 5 Recording Count

Determines the number of count-in measures provided before recording actually starts after pressing the [▶] (Play) button in the Record standby mode.

**Settings:** off (Recording starts as soon as the [▶] button is pressed), 1 meas – 8 meas

#### 6 Sampling Count in

Determines the number of count-in measures provided before Song/Pattern playback starts after you start the Sampling operation. This parameter setting can be used when the Type parameter is set to “sample+note” and the Trigger Mode parameter is set to “meas” in the Sampling mode called up from the Song or Pattern mode.

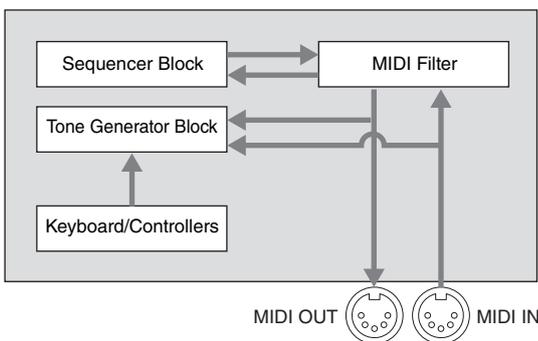
When “off” is selected, Song/Pattern playback starts as soon as you start the Sampling operation.

**Settings:** off, 1 meas – 8 meas

### MIDI Filter Settings—[F2] MIDI Filter

From this display you can set which MIDI events will be recognized/transmitted via MIDI. The settings made here apply only to Song/Pattern playback data; they do not affect the MIDI events generated by your keyboard playing or panel operations and Arpeggio playback in the Voice and Performance modes. The Song/Pattern playback data will pass through the MIDI Filter before being sent to the internal tone generator block as well as the MIDI OUT connector.

MIDI messages transmitted from the external MIDI instrument will pass through the MIDI Filter before being recorded to the Song/Pattern track. They will be sent to the internal tone generator without passing through the MIDI Filter.



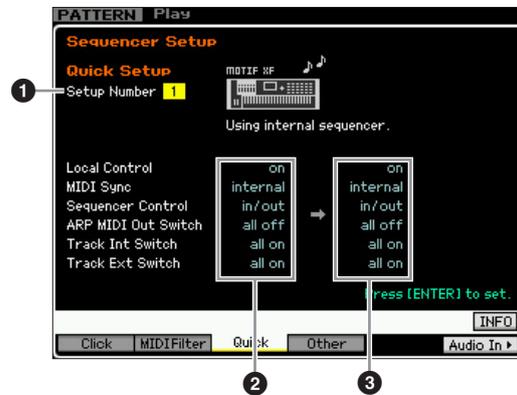
#### MIDI events to which the Filter is applied:

Note, Program Change, Control Change, Pitch Bend, Channel After Touch, Polyphonic After Touch, System Exclusive, Channel Mode Message

**Settings:**  (not transmitted/recognized),  (transmitted/recognized)

### Using the Quick Setup function—[F3] Quick (Quick Setup)

From this display, you can instantly call up appropriate sequencer-related panel settings by selecting convenient preset setups, allowing you to simultaneously set a variety of important sequencer-related parameters.



**NOTE** The Track INT Switch and Track EXT Switch parameters are not available when calling up the Quick Setup window from the Performance mode.

#### 1 Setup Number

Determines the Setup number. The parameter settings of the selected Setup are indicated as new settings on the right (3).

**Settings:** 1 – 4

1	Using internal Sequencer	This setup is useful when you use the internal sequencer function (Song or Pattern) by itself.
2	Recording internal sequencer to computer	This setup is useful when you transmit the Song or Pattern playback data to an external computer and record it to an application software on the computer.
3	Recording on computer	This setup is useful when recording your keyboard performance to computer software. The sequencer block of the MOTIF XF is synchronized with the external clock when the MIDI clock comes from the external MIDI device; when MIDI clock does not come from the external MIDI device, the sequencer block of the MOTIF XF is synchronized with its own internal clock.
4	Recording Arpeggio to computer	This setup is useful when you transmit the Arpeggio playback data to an external computer and record it to an application software on the computer.

#### 2 Current settings

Indicates the current settings of the related parameters. After selecting a Setup (1), indicated as new settings on the right (3), press the [ENTER] button to actually call up the selected Setup (1), which are then indicated as the current settings (2).

#### 3 New settings

Indicates the parameter settings of the selected Setup above (1).

## Other Settings for the Song/Pattern— [F4] Other

From this display you can set parameters related to the Song/Pattern mode, such as Pattern change timing.

**NOTE** The settings here do not affect the Performance mode.



### 1 Quantize

Determines the quantize value for Section (Pattern) switching during playback when you change the Section. When set to “1,” Patterns (Sections) will always switch on the first beat of the next measure during playback after you change the Section. When set to “1/16,” Sections can be switched on any 16th beat during playback.

**Settings:** 1 (1 measure), 1/2 (Half note), 1/4 (Quarter note), 1/8 (8th note), 1/16 (16th note)

### 2 Tempo Hold

Determines whether or not the tempo setting will switch to the tempo value stored with each Pattern when a new Pattern is selected during playback. When set to “on,” the tempo will be retained when Patterns are switched. When set to “off,” the tempo will switch to that stored with the new Pattern when Patterns are switched. Normally, set this to “off.”

**Settings:** on, off

**NOTE** The tempo setting data in the Pattern Chain is not affected by this parameter.

### 3 Load Mixing

Determines whether the Mixing settings are loaded (on) or not (off) when the Song/Pattern number is changed. Normally, set this to “on.”

**Settings:** on, off

**NOTE** When the Load Mixing parameter is set to “off,” song changes via Song Chain playback do not change the Mixing setup.

### 4 Song Event Chase

Normally, if a Song or Pattern is played back from mid-point and/or fast-forward or rewind are used, certain data types (such as Program Change, Pitch Bend, and Control Change) may not play back as expected. Setting this to a specific event ensures the playback integrity of the event, even when fast forwarding or rewinding.

**Settings:** off, PC (Program Change), PC+PB+Ctrl (Program Change + Pitch Bend + Control Change)

**NOTE** Keep in mind that settings other than “off” may result in slower operation—for example, a pause before starting playback, or slower rewind/fast-forward speed.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

# File Management (File mode)

The File mode provides tools for transferring data (such as Voice, Performance, Song, Pattern and Waveform) between the MOTIF XF and external storage devices such as USB storage device and hard disk unit connected to the USB TO DEVICE connector. By mounting the hard disk drive of the computer connected to the MOTIF XF via the network, you can also transfer data between the MOTIF XF and an online computer.

To enter the File mode, press the [FILE] button. The file types available differ depending on the mode selected before calling up the File mode.

**NOTE** When the MOTIF XF is connected to a network, the File mode can be used to access the drives of computers on the network. To do this, make sure the MOTIF XF is properly connected to the network (page 41) and set the necessary parameters in the Network display (page 221) of the Utility mode.

## Terminology in the File mode

### File

Just as with a computer, various data types such as Voice, Performance, Song and Pattern created on the MOTIF XF can be treated as a file and saved to an external USB storage device or the hard disk drive of a computer connected to the network.

### File Name

Just as with a computer, you can assign the name to the file in the File mode. The file name can contain up to 20 alphabetical characters on the display of the MOTIF XF. Files having the same name cannot be saved in the same directory.

### Extension

The three letters following the file name (after the period) such as ".mid" and ".wav" are referred to as a file "extension." The extension indicates the type of file and cannot be changed by the panel operation of the MOTIF XF. The File mode of the MOTIF XF supports ten different extension types, according to the particular data. For details, see page 235.

### File size

Refers to the memory amount of the file. The file size is determined by the amount of data saved to the file. Generally, the size of an audio file including the Waveforms is much larger than the size of a MIDI file. File sizes are indicated in conventional computer terms by B (Byte), KB (Kilo Byte), MB (Mega Byte) and GB (Giga Byte). 1KB is equivalent to 1024 Byte, 1MB is equivalent to 1024KB, and 1GB is equivalent to 1024MB.

## Device

Refers to a memory storage unit (such as a hard disk) to which the file is saved. The MOTIF XF can handle and mount various types of USB storage devices connected to the USB TO DEVICE connector computer drives connected via network to the MOTIF XF.

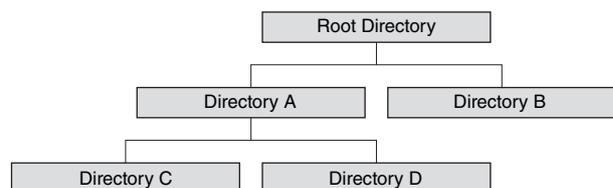
## Directory (Dir)

This is an organizational feature on a data storage device (such as hard disk), allowing you to group data files together according to type or application. Directories can be nested in hierarchical order for organizing data. The "directory" is equivalent to the "folder" used as a computer term. The File mode of the MOTIF XF allows you to assign a name to a directory like a file. Please note that the directory name does not contain the extension.

## Changing the current directory (folder)

Using the illustration below as an example, this shows you how to change the current directory. First, open the root directory to find directories A and B. Next, open the directory A to find directories C and D. Finally, open the directory C to find only the files saved in the directory C. This allows you to call up folders nested down in the lower levels of the folder hierarchy.

To select a different directory higher up (for example, moving from directory C to directory B), first go to the next highest level (directory A). Next, go up one more level (to the root directory). Now that both A and B are available, open directory B. In this way you can move up or down through the folder hierarchy.



**NOTE** To go down from the current directory in the File window (page 237), move the cursor to the desired directory in the Directory/File list then press the [ENTER] button. To go up from the current directory, move the cursor to the top line in the Directory/File list then press the [ENTER] button.

## Path

The location of the directories (folders) and files currently indicated at the “Dir” line on the display is referred to as a “path.” This indicates the current directory, what device it belongs to, and in which folder(s) it is contained. “Directory C” illustrated above is described as path “USB\_HDD/A/C.”

## Mount

Refers to the operation so that an external memory device becomes active for the instrument. The USB storage device is automatically mounted as soon as connected to the USB TO DEVICE connector on the rear panel of the MOTIF XF. The hard disk drive of the computer connected to the MOTIF XF via the network can be mounted in the Mount display (page 239).

## Format

The operation of initializing a storage device (such as a hard disk) is referred to as “format.” The File mode of the MOTIF XF allows you to format the USB memory storage device connected to the USB TO DEVICE connector. The format operation erases all data from the target memory device and is irreversible.

## Save/Load

“Save” means that the data created on the MOTIF XF is saved to the external memory device as a file, while “Store” means that the data created on the MOTIF XF is stored to internal memory. “Load” means that the file on the external memory device is loaded to internal memory.

## File types that can be handled by the MOTIF XF

The MOTIF XF supports various file types that can be saved and loaded. Refer to the following two lists.

### File types that can be saved

Type	File extension*	Description
All	.X3A	All data in this synthesizer's internal User Memory (Flash ROM) is treated as a single file, and can be saved to the USB storage device.
All Voice	.X3V	All the User Voice data in this synthesizer's internal User Memory (Flash ROM) is treated as a single file, and can be saved to the USB storage device. Also the Waveforms obtained via the Sampling function and assigned to any of the Voices are saved together.
All Arpeggio	.X3G	All the User Arpeggio data in this synthesizer's internal User Memory (Flash ROM) is treated as a single file, and can be saved to the USB storage device.
All Song	.X3S	All the User Song data in this synthesizer's internal User Memory (Flash ROM) is treated as a single file, and can be saved to the USB storage device. The Song data includes Mixing settings, Mixing Voices and Sample Voices.
All Pattern	.X3P	All the User Pattern data in this synthesizer's internal User Memory (Flash ROM) is treated as a single file, and can be saved to the USB storage device. The Pattern data includes Mixing settings, Mixing Voices and Sample Voices.
SMF	.MID	Sequence track (1 – 16) and Tempo track data of Songs or Patterns created in the Song/Pattern mode can be saved to the USB storage device as Standard MIDI File (format 0) data.
All Waveform	.X3W	All the Waveform data created via the Sampling function can be saved as a single file. The Waveform data includes all the Samples on SDRAM and the optional Flash Memory Expansion Modules (FL512M/FL1024M). Note that the Samples on the FL512M/FL1024M may not be included in a file of this type because you can select whether or not these are to be saved before executing the Save operation.
WAV	.WAV	A Sample created in the Sampling mode can be saved to the USB storage device as a WAV file (Windows audio format).
AIFF	.AIF	A Sample created in the Sampling mode can be saved to the USB storage device as an AIFF file (Mac audio format).

\* Automatically assigned to the saved file.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

## File types that can be loaded

Type	File extension*	Description
All	.X3A	Files of the "All" type saved to the USB storage device can be loaded and restored to the instrument. When the box at the left of "without System" is checkmarked, only the Utility mode settings will not be loaded.
all without system	.X3A	Files of the "all" type saved to the USB storage device can be loaded and restored to the instrument, with the exception of the Utility and Sequencer Setup settings.
All Voice	.X3V	Files of the "All Voice" type saved to the USB storage device can be loaded and restored to the instrument.
Voice, 1bank voice	.X3A .X3V	A specific Voice or Voice Bank in a file that is saved to the USB storage device as "All" or "All Voice" type can be individually selected and loaded to the instrument. Please note that the file icons  of "X3A" and "X3V" are changed to  (as virtual folders) when this file type is selected (page 243).
Performance	.X3A	A specified Performance in a file that is saved to the USB storage device as "All" type can be individually selected and loaded to the instrument. Please note that the file icon  of "X3A" is changed to  (as a virtual folder) when this file type is selected (page 245).
All Arpeggio	.X3G	Files of the "All Arpeggio" type saved to the USB storage device can be loaded and restored to the instrument.
All Song	.X3S	Files of the "All Song" type saved to the USB storage device can be loaded and restored to the instrument.
Song	.X3A .X3S .MID	A specified Song in a file that is saved to the USB storage device as "All" or "All Song" type can be individually selected and loaded to the instrument. Please note that the file icons  of "X3A" and "X3S" are changed to  (as virtual folders) when this file type is selected (page 246).
All Pattern	.X3P	Files of the "All Pattern" type saved to the USB storage device can be loaded and restored to the instrument.
Pattern	.X3A .X3P .MID	A specified Song in a file that is saved to the USB storage device as "All" or "All Pattern" type can be individually selected and loaded to the instrument. Please note that the file icons  of "X3A" and "X3P" are changed to  (as virtual folders) when this file type is selected (page 246).
All Waveform	.X3W	Files of the "All" or "All Waveform" types saved to the USB storage device can be loaded and restored to the instrument.
Waveform	.X3A .X3W	A specified Waveform in a file that is saved to the USB storage device as "All" or "All Waveform" type can be individually selected and loaded to the instrument. Please note that the file icons  of "X3A" and "X3W" are changed to  (as virtual folders) when this file type is selected (page 244).
WAV	.WAV	WAV format files can be loaded to the instrument. For details, see page 247.
AIFF	.AIF	AIFF format files can be loaded to the instrument. For details, see page 247.

Type	File extension*	Description
Sample Voice	.X3A .X3S .X3P	A specified Sample Voice in a file that is saved to the USB storage device as "All" or "All Song" or "All Pattern" type can be individually selected and loaded to the instrument. Please note that the file icons  of "X3A," "X3S" and "X3P" are changed to  (as virtual folders) when this file type is selected (page 246). This file type is available only when entering the File mode from the Song mode/Pattern mode.
MOTIF XF Editor	.X3E	The file (.X3E) created via the MOTIF XF Editor software (available from the Yamaha site) on your computer can be loaded to the instrument. The file of this editor type includes all User Voices and Mixing data handled by the MOTIF XF. Note that only User Voice data can be loaded to the MOTIF XF.

\* Assigned to the file which can be loaded.

### Data Compatibility with the MOTIF XS6/MOTIF XS7/MOTIF XS8

Completely compatible.

### Data Compatibility with the MOTIF ES6/MOTIF ES7/MOTIF ES8

Among the data created on the MOTIF ES6/MOTIF ES7/MOTIF ES8, Voices, Waveforms, Sample Voices can be loaded to the MOTIF XF6/MOTIF XF7/MOTIF XF8.

#### • "All" data of the MOTIF ES

Files of the "All" type (extension: W7A) saved to the USB storage device connected to the MOTIF ES can be loaded to the MOTIF XF. To do this, set the Type to "All" in the [F1] File window of the MOTIF XF.

#### • Voices

A specified Voice in a file (extension: W7A, W7V) that is saved to the storage device as "All" or "All Voice" type on the MOTIF ES can be individually selected and loaded to the MOTIF XF. Set the Type in the [F1] File display to "Voice" and execute the Load procedure. All Voice data in a file (extension: W7A) that has been saved to the storage device as "All" type on the MOTIF ES can be selected and loaded to the MOTIF XF.

Likewise, a file (extension: W7V) that is saved to the USB storage device as "All Voice" type on the MOTIF ES can be loaded to the MOTIF XF. Set the Type in the [F1] File display to "All Voice" and execute the Load procedure.

In addition, Voice Editor files (extension: W7E) can be loaded to the MOTIF XF. Set the Type in the [F1] File display to "Voice Editor" and execute the Load procedure.

**NOTE** The Voices loaded to the MOTIF XF 6/7/8 may not produce the exact same sound as those on the original MOTIF ES 6/7/8, since the contents of the preset Waveforms and the Effect structure are different between the two instrument series.

#### • Waveforms

A specified Waveform in a file (extension: W7A, W7W) that is saved to the storage device as "All" or "All Waveform" type on the MOTIF ES can be individually selected and loaded to the MOTIF XF. Set the Type in the [F1] File display to "Waveform" and execute the Load procedure.

Likewise, a file (extension: W7W) that is saved to the storage device as "All Waveform" type on the MOTIF ES can be loaded

to the MOTIF XF. Set the Type in the [F1] File display to “All Waveform” and execute the Load procedure.

### • Sample Voices

A specified Sample Voice (extension: W7A, W7S, W7P) in a file that is saved to the storage device as “All” or “All Song” or “All Pattern” type on the MOTIF ES can be individually selected and loaded to the MOTIF XF. Set the Type in the [F1] File display to “Sample Voice” and execute the Load procedure.

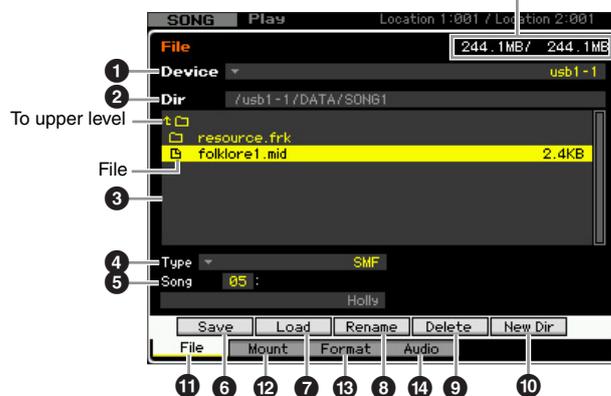
### File Type Setting example when saving:

Data to be saved	File type	
All data	All	
User Voice	All Voice	
Performance	All	
Songs	When User Voices are used in the Songs:	All
	When no User Voices are used in any of the Songs:	All Song
	When you wish to transfer a Song to an external MIDI sequencer or computer:	SMF
Pattern	When User Voices are used in the Patterns:	All
	When User Voices are not used in all the Patterns:	All Pattern
	When you wish to transfer a Pattern to an external MIDI sequencer or computer:	SMF
Sampling data	All waveforms	All Waveform
	When you wish to transfer a Sample to a computer:	WAV, AIFF

## File Management—[F1] File

The File window lets you use all file-related functions such as device selection, selecting a path, save, load, rename and delete.

The amount of used memory/total memory



### 1 Device

Here, you can select the desired device from the ones mounted (recognized) by the File mode. The device selected here is called “Current Device.” When selecting a device, the root directory of the selected device appears in the Dir column. The amount of used memory and total memory on the selected device appears at the top right of the display.

**NOTE** You can call up the list by pressing the [SF6] LIST button then select the desired item from the list. For details, see page 37.

### 2 Dir (Directory)

Indicates the current directory with the path. The contents (files and folders) included in the current directory are listed in the Directory/File list box below. The current directory can be changed in the Directory/File list box below.

### 3 Directory/File list

Indicates the directories and files in the current Directory. In this box, the directories and files are listed in alphabetical order, with the exception of the top line which is provided for moving to the next highest directory. You can distinguish the directory and file by the indicator at left end of each line.

□ ..... Directory (Folder)

📄 ..... File

The directory name is shown on the Directory line while the file name with the extension and file size are shown on the File line.

### Moving between the directory levels

To go down from the current directory, move the cursor to the desired directory in the Directory/File list then press the [ENTER] button. To go up from the current directory, move the cursor to the top line in the Directory/File list then press the [ENTER] button.

**4 Type**

Determines the data type to be saved or loaded. The available type differs depending on the mode selected before calling up the File mode. For details about the data types, see pages 235 and 236. You can call up the File Type List by pressing the [SF6] LIST button then select the desired one from the list. For details, see page 37.

**5 Memory location of the data type above**

Determines the memory location of the data type above such as Voice Bank/number, Performance Bank/Number, Song number and Pattern number. The available values differ depending on the Type setting above. For details about the source memory to be saved, see page 241. For details about the target memory to be loaded, see page 242.

**6 [SF1] Save**

Pressing this button executes the Save operation. For detailed instructions on saving, see page 241.

**7 [SF2] Load**

Pressing this button executes the Load operation. For detailed instructions on loading, see page 242.

**8 [SF3] Rename**

Pressing this button calls up the window for entering the new name of the selected file. The File name can contain up to 20 characters. For detailed instructions on naming, refer to “Basic Operation” on page 37.

Follow the instructions below to change the name of the file.

- 1 Select a file to be renamed by moving the cursor in the Directory/File list.
- 2 Press the [SF3] button to call up the Input Character window.
- 3 Enter the new name of the selected file.
- 4 Press the [ENTER] button to actually change the name of the selected file.

**9 [SF4] Delete**

Pressing this button to call up the Delete window.

Follow the instructions below to delete a file.

- 1 Select a file to be deleted by moving the cursor in the Directory/File list.
- 2 Press the [SF4] button to call up the Delete window.
- 3 Press the [ENTER] button to delete the selected file.

**10 [SF5] New Dir (New Directory)**

Pressing this button creates a new directory in the current directory. The directory name can contain up to 10 characters. For detailed instructions on naming, refer to “Basic Operation” on page 37.

Follow the instructions below to create a new directory.

- 1 Press the [SF5] button to call up the Input Character window.
- 2 Enter the name of the new Directory.
- 3 Press the [ENTER] button to actually enter the name of the newly created directory.

**11 [F1] File**

Pressing this button calls up the File window from another window in the File mode.

**12 [F2] Mount**

Pressing this button calls up the Mount window. For details, see page 239.

**13 [F3] Format**

Pressing this button calls up the Format window. For details, see page 240.

**14 [F4] Audio**

Pressing this button calls up the window for recording your keyboard performance as an audio file or playing an existing audio file. For instructions, refer to the Owner's Manual.

## Basic Procedure in the File mode

**1 Press the [FILE] button to enter the File mode.**

The File window (page 237) appears.

**2 Mount the memory devices to which the file is saved or from which the file is loaded.**

The USB storage device is automatically mounted as soon as it is connected to the USB TO DEVICE connector on the rear panel. The hard disk drive of the computer connected to the MOTIF XF via the network can be mounted in the Mount display (page 239).

**3 Select the desired device.**

Select the desired device from the ones mounted in step 2.

**4 Move the path to the desired directory.**

Select the desired directory in the selected device. To go down from the current directory, move the cursor to the desired directory in the Directory/File list then press the [ENTER] button. To go up from the current directory, move the cursor to the top line in the Directory/File list then press the [ENTER] button. The Dir line indicates the current directory name with the path and the lower

box lists the directories and files belonging to the current directory.

**NOTE** If you wish to create a new directory and save the file there, press the [SF5] New Dir button. For detailed instructions on creating a new directory, see the left column.

## 5 Select the desired data type from the Type column (4).

In the Directory/File list box, only files related to the selected file type are listed.

**NOTE** Depending on the mode selected before calling up the File mode, the available data types differ. If you cannot find the data type which you wish to handle, for example "voice," press the [EXIT] button to exit from the File window, press the [VOICE] button to enter the Voice mode, then press the [FILE] button to call up the File window again.

## 6 Select the desired file by moving the cursor in the Directory/File list (3).

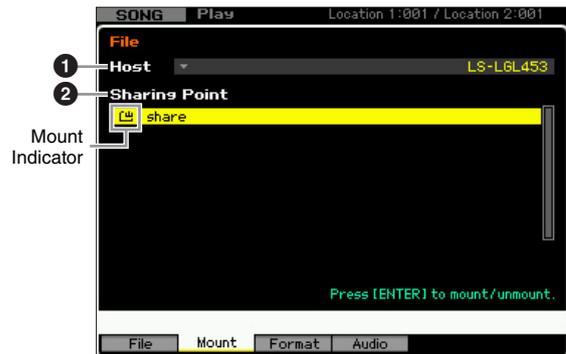
This operation is not necessary when you execute Save or New Directory. When you wish to execute the Rename or Delete operation, press the [SF3] Rename button or the [SF4] Delete button. For detailed instructions on renaming and deleting, see page 238 and left column.

## 7 Select a memory location of the data type specified in step 5 as source or destination.

When you wish to execute the Save or Load operation, press the [SF1] Save button or the [SF2] Load button. For detailed instructions on saving and loading, see pages 241 and 242.

## Online Device Mounting—[F2] Mount

From this display, you can mount the shared directories on the hard disk drive of a computer connected via network to the MOTIF XF.



### 1 Host

From the computers connected to the network, this parameter determines the host computer containing the device is to be mounted. Here, the computer name set in your computer is shown.

You can call up the Device List by pressing the [SF6] LIST button then select the desired item from the list. For details, see page 37. Here, the computer name set in your computer is shown.

**NOTE** If the desired computer name is not shown in the Host (1) parameter, you can call up the Character List by pressing the [SF5] CHAR button and enter the computer name manually. For detailed instructions on naming, refer to "Basic Operation" on page 37.

**NOTE** Confirm the computer name on your computer. For details, refer to the owner's manual of your computer.

### 2 Sharing Point

Here, the shared directories of the host computer set above are listed. You can also mount or unmount each of the shared directories.

**NOTE** Keep in mind that the names of the shared folders authorized on the computer are shown here.

### Mounting/Unmounting a directory

You can mount the shared directory by moving the cursor to the desired directory then pressing the [ENTER] button. The mount indicator appears at the left side of the name of the mounted directory. You can unmount the shared directory by pressing the [ENTER] button again. The mount indicator disappears.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

## Mount Procedure

Follow the instructions below to mount the memory drive of the computer connected to the network.

- 1 Connect the MOTIF XF to the network.**  
Network related parameters can be set in the Network display (page 221) in the Utility mode.
- 2 Press the [FILE] button to enter the File mode, then press the [F2] button to call up the Mount window.**
- 3 Select a host computer at the Host column (1).**  
If the desired computer name is not shown in the Host (1) parameter, you can call up the Character List by pressing the [SF5] CHAR button and enter the computer name manually. For detailed instructions on naming, refer to “Basic Operation” on page 37.  
If you select a computer which has not been accessed by the MOTIF XF, “Press [ENTER] to access” appears on the display. When pressing the [ENTER] button, the display prompts you to enter the password as illustrated below. Here, enter the User Account of your computer to the User Name box, enter the password of your computer to the Password box, then press the [ENTER] button so that the access between the MOTIF XF and the computer is established. The shared directories of the selected computer are listed in the Sharing Point box (2).



**NOTE** Once access between the MOTIF XF and the computer has been established, the shared directories are automatically listed in the display simply by selecting a computer from the Host column. If the power is turned off, the operations for establishing the access (entering the User Account and Password) are necessary after turning the power on next time.

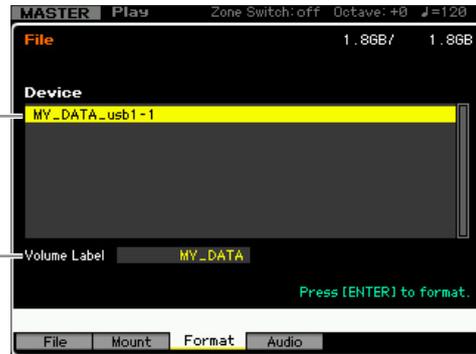
**NOTE** For details about how to confirm the User Account and Password of your computer, refer to the owner’s manual of your computer.

**NOTE** When a Password is not assigned to your computer, simply pressing the [ENTER] button without inputting any characters establishes the access between the MOTIF XF and your computer.

- 4 Mount the desired directories.**  
In the Sharing Point box (2), you can mount the shared directory by moving the cursor to the desired directory, then pressing the [ENTER] button. The mount indicator appears at the left side of the name of the mounted directory. You can unmount the shared directory by pressing the [ENTER] button again. The mount indicator disappears. The mounted directories can be selected in the File window (page 237).

## Formatting a Device—[SF3] Format

From this display, you can format memory storage devices such as a hard disk connected to the USB TO DEVICE connector.



- 1 Device**  
The connected and mounted devices are listed here, letting you select the device to be formatted. A device that requires formatting is indicated by “unknown device (usb\*\*\*).” The three asterisks (\*\*\*) in the indication denote the sequential serial numbers of the connected devices which need to be formatted. When several partitions are included in a single device, the partition number is indicated at the right of the serial number.

- 2 Volume Label**  
Determines the Volume Label of the selected device. The Volume Label is the name assigned to the device. The Volume Label can contain up to 11 characters. For detailed instructions on naming, refer to “Basic Operation” on page 37.

## Format Procedure

- 1 Connect the device to be formatted to the USB TO DEVICE terminal.**
- 2 Select a device to be formatted from the Device list (1).**
- 3 Enter the Volume Label (2) as desired.**
- 4 Press the [ENTER] button. (The display prompts you for confirmation.)**  
Press the [DEC/NO] button to cancel the Format.
- 5 Press the [INC/YES] button to execute the Format operation.**

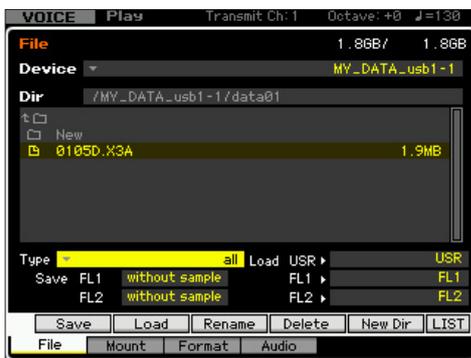
**NOTICE**  
If you format the device, all the previously recorded data will be deleted. Make sure to check beforehand whether or not the device contains important data. When checking the contents of the device in the [F1] File window, keep in mind that some files (which are not listed on pages 235 and 236) are not shown on the display of the MOTIF XF, even if the File Type is set to “all.”

## Saving a file

The saving procedure differs depending on the file type to be saved and the mode selected before calling up the File window. This section explains the procedure relevant to following three cases.

- Saving all user data or all data of a specific type
- Saving the sample of a specific Voice
- Saving a Song or a Pattern Section as a Standard MIDI File

### Saving all user data or all data of a specific type



#### 1 Select a device and directory as destination by following “Basic Procedure in the File mode” on page 238.

**NOTE** When you wish to save all 64 songs, press the [SONG] button to enter the Song mode then press the [FILE] button to call up the File window. When you wish to save all 64 patterns, press the [PATTERN] button to enter the Pattern mode then press the [FILE] button to call up the File window.

**NOTE** Follow the instructions below after selecting a Voice, Performance, Song or Pattern to which the Sample to be saved is assigned in each of the modes.

**NOTE** You can speed up this operation by selecting a file having a name similar to the desired one in this step, since the operation will show the corresponding name by default on the window for entering the file name, making it unnecessary to input the file name from scratch.

#### 2 Set the Type to the desired one of “all,” “all voice,” “all arpeggio,” “all waveform,” “editor,” “all song,” and “all pattern.”

**NOTE** When you select the data type including the Waveform data, select whether or not the Sample data will be saved for each Flash Memory Expansion Module at the left bottom of the display. For details about the Waveform data structure on saving, refer to see page 248.

#### 3 Press the [SF1] Save button to call up the window for entering the file name.

#### 4 Enter the file name, press the [ENTER] button then the [INC/YES] button to save the data of the specified type to the external memory device.

The file name can contain up to 20 characters. For detailed instructions on naming, refer to “Basic Operation” on page 37.

### Saving the sample of a specific Voice

You can save the sample of a specific Voice to an external memory device as a WAV file or an AIFF file for storage or editing on a computer. This method is available when entering the File mode from any mode. For details about file types that can be saved, see page 235.



**NOTE** When entering the File mode from the Performance mode/Song mode/Pattern mode and saving/loading the sample assigned to the Normal Voice, only the sample assigned to the Element 1 is available.

#### 1 Select a device and directory as destination by following “Basic Procedure in the File mode” on page 238.

**NOTE** You can speed up this operation by selecting a file having a name similar to the desired one in this step, since the operation will show the corresponding name by default on the window for entering the file name, making it unnecessary to input the file name from scratch.

#### 2 Set the Type to “WAV” or “AIFF.”

**NOTE** Keep in mind that some parameter settings, such as Start Point, are not saved when saving the Sample of a specific Voice as WAV or AIFF format. This means that the WAV file or AIFF file saved in the File mode will be played back from the top (including the section before the Start Point) on an external device, such as a computer.

#### 3 Select the source data.

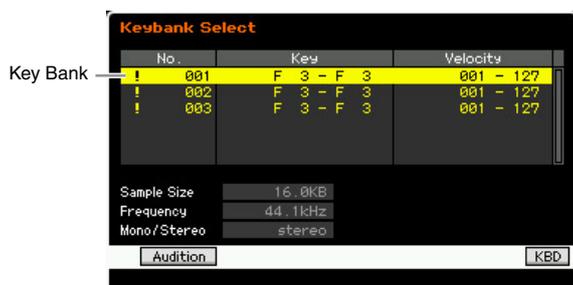
When entering the File mode from the Voice mode, select an Element (for a Normal Voice) and Key to which the Sample to be saved is assigned. When entering the File mode from the Performance/Song/Pattern mode, select a Part and Key to which the Voice including the Sample to be saved is assigned.

**NOTE** Preset Waveforms cannot be saved to an external storage device. If you select a Performance/Song/Pattern Part to which the preset Voice is assigned or you select a Normal

Voice Element or Drum Voice Key to which the preset Waveform is assigned, an error message appears.

**NOTE** The available source data differs depending on the mode selected before entering the File mode. When entering the File mode from the Voice mode, the available source data differs depending on the type of the already selected Voice: Normal Voice or Drum Voice. Make sure to select a Voice/Performance/ Song/Pattern to which the desired Sample is assigned before entering the File mode.

#### 4 Press the [SF1] Save button to call up the window for selecting a Key Bank.



#### 5 Select a Key Bank to which the sample is assigned by moving the cursor.

Press the [SF1] Audition button to hear the sampled sound.

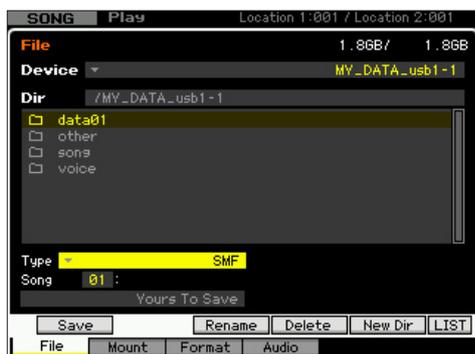
#### 6 Press the [ENTER] button to call up the window for entering the file name.

#### 7 Enter the file name, press the [ENTER] button then the [INC/YES] button to save the data to the external memory device.

The file name can contain up to 20 characters. For detailed instructions on naming, refer to "Basic Operation" on page 37.

### Saving a Song or a Pattern Section as a Standard MIDI File

You can save a Song or a Pattern Section as a Standard MIDI File in the File mode. The Standard MIDI File format is common and can be used on other MIDI sequencers and computer music software. This method is available when entering the File mode from the Song mode/Pattern mode.



#### 1 Select a device and directory as destination by following "Basic Procedure in the File mode" on page 238.

**NOTE** You can speed up this operation by selecting a file having a name similar to the desired one in this step, since the operation will show the corresponding name by default on the window for entering the file name, making it unnecessary to input the file name from scratch.

#### 2 Set the Type to "SMF."

#### 3 Select the source data.

**NOTE** The available source memory differs depending on the mode selected before entering the File mode. When you want to save a Song, enter the File mode from the Song mode. When you want to save a Pattern, enter the File mode from the Pattern mode.

#### 4 Press the [ENTER] button to call up the window for entering the file name.

#### 5 Enter the file name, press the [ENTER] button then the [INC/YES] button to save the data to the external memory device.

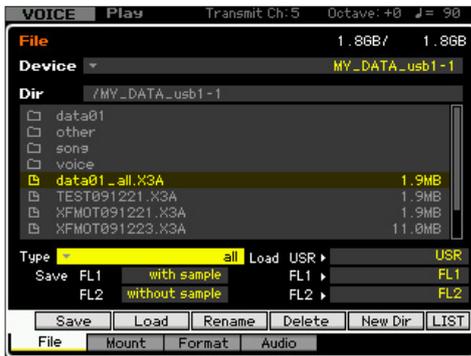
The file name may contain up to 20 characters. For detailed instructions on naming, refer to "Basic Operation" on page 37.

## Loading a file

The loading procedure differs depending on the file type to be loaded and the mode selected before calling up the File window. This section explains the procedure relevant to following eight cases.

- Loading all user data or all data of a specific type (all voices, all songs, all patterns, etc.)
- Loading a specific Voice or all the Voices of a specific Bank from an "all" or "all voice" file
- Loading a specific Waveform from an "all" or "all waveform" file
- Loading a specific Performance from an "all" file
- Loading a specific Song or Pattern from an "all" or "all song" or "all pattern" file
- Loading a specific Sample Voice from an "all" or "all song" or "all pattern" file
- Loading a WAV file or an AIFF file
- Loading a SMF file (Standard MIDI file)

## Loading all user data or all data of a specific type



- 1 Select a device and directory including the source file by following “Basic Procedure in the File mode” on page 238.

**NOTE** When you wish to load all 64 Songs, press the [SONG] button to enter the Song mode then press the [FILE] button to call up the File window. When you wish to load all 64 Patterns, press the [PATTERN] button to enter the Pattern mode then press the [FILE] button to call up the File window.

- 2 Set the Type to the desired one of “all,” “all without system,” “all voice,” “all arpeggio,” “all waveform,” “editor,” “all song,” and “all pattern.”

Only available files according to the Type are listed in the Directory/File list box on the display.

**NOTE** When you select the data type including the Waveform data, select the destination memory (USR, FL1, FL2) for each memory block in the Load column at the right bottom of the display. For details about the Waveform data structure on loading, refer to page 248.

- 3 Select the file to be loaded.

You can select any of the files listed in the Directory/File list box on the display.

- 4 Press the [SF2] button (a prompt for confirmation appears).

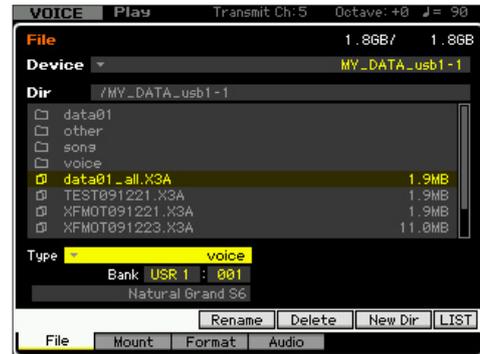
Press the [DEC/NO] button to cancel the Load operation.

- 5 Press the [INC/YES] button to execute the Load operation.

### NOTICE

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

## Loading a specific Voice or all the Voices of a specific Bank from an “all” or “all voice” file



- 1 Select a device and directory as source by following “Basic Procedure in the File mode” on page 238.

- 2 Set the Type to “voice” or “1bank voice.”

Only available files according to the Type are listed in the Directory/File list box on the display.

**NOTE** In this step, the Load menu corresponding to the [SF2] button is not shown in the display. The Load menu appears when selecting a Voice to be loaded in step 6.

- 3 Specify the destination memory location (5) in the User Memory.

When the Type (4) is set to “voice,” select a Voice Bank and number as destination. When the Type (4) is set to “1bank voice,” select a Voice Bank as destination.

**NOTE** When entering the File mode from the Performance/Song/Pattern mode, set a Part to which the loaded Voice is to be assigned as well as a Voice Bank and number.

**NOTE** When loading a Drum Voice, select the User Drum Voice Bank (UDR) as the destination memory location (5). When loading a Normal Voice, select one of the User Normal Voice Banks (USR1 – 3) as the destination memory location (5). If the appropriate Voice Bank is not set, pressing the [SF2] Load button calls up an error message.

- 4 Move the cursor to the file to be loaded.

You can select any of the files listed in the Directory/File list box on the display.

- 5 When the Type (4) is set to “voice,” press the [ENTER] button so that the Voices of the specified Bank are listed in the Directory/File list box. When the Type (4) is set to “1bank voice,” press the [ENTER] button so that the Banks are listed in the Directory/File list box.

When the Normal Voice Bank is selected in step 3, you can change the Voice Bank as source by pressing one of the Bank buttons (USR 1 – 4) on the front panel.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

Voice List



**6 Move the cursor to the desired Voice or Voice Bank.**

The Load menu corresponding to the [SF2] button appears.

**7 Press the [SF2] button (a prompt for confirmation appears).**

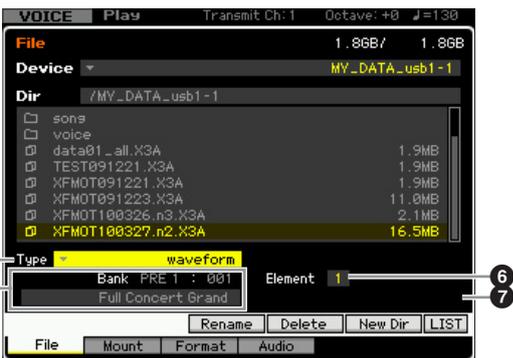
Press the [DEC/NO] button to cancel the Load operation.

**8 Press the [INC/YES] button to execute the Load operation.**

**NOTICE**

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

**Loading a specific Waveform from an “all” or “all waveform” file**



**1 Select a device and directory as the source by following the instructions in “Basic Procedure in the File mode” on page 238.**

**2 Set the Type (4) to “waveform.”**

Only available files according to the Type are listed in the Directory/File list box on the display.

**NOTE** In this step, the Load menu corresponding to the [SF2] button is not shown in the display. The Load menu appears when selecting a Waveform to be loaded in step 6.

**3 Select the file to be loaded.**

You can select any of the files listed in the Directory/File list box on the display.

**4 Press the [ENTER] button so that the three memory types (USR, FL1 and FL2) are shown on the display, then move the cursor to the desired memory type.**



**5 Press the [ENTER] button so that the Waveforms in the selected file are listed on the display.**

Waveforms



**6 Move the cursor to the desired Waveform.**

The Load menu corresponding to the [SF2] button appears.

**7 Specify the destination memory location in the User memory.**

At 5, select a Part to which the Waveform is to be assigned, when entering the File mode from the Performance/Song/Pattern mode.

At 6, select an Element (for a Normal Voice) to which the Waveform (loaded to an empty number) is to be assigned.

**NOTE** Please note that Waveforms cannot be loaded to a Drum Voice.

**NOTE** When entering the File mode from the Performance/Song/Pattern mode, determine the Part to which the Voice including the loaded Waveform is to be assigned.

## 8 Select the destination memory type (7) of the instrument.

When “USR” is selected, the specified Waveform will be loaded to SDRAM. When “FL1” or “FL2” is selected, the specified Waveform will be loaded to either slot 1 or 2 of the optional Flash Memory Expansion Board. When “FL1 without image” or “FL2 without image” is selected, only the parameter settings of the specified Waveform will be loaded to either slot 1 or 2 of the optional Flash Memory Expansion Board.

## 9 Press the [SF2] button (a prompt for confirmation appears).

Press the [DEC/NO] button to cancel the Load operation.

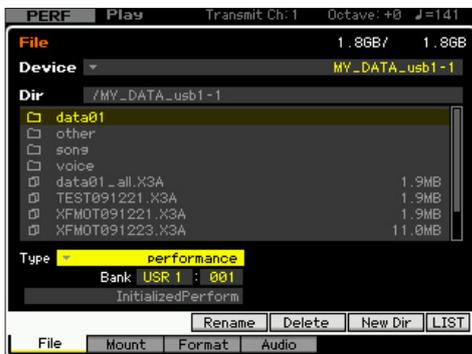
## 10 Press the [INC/YES] button to execute the Load operation.

### NOTICE

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

## Loading a specific Performance from an “all” file

This method is available only when entering the File mode from the Performance mode.



## 1 Select a device and directory as source by following “Basic Procedure in the File mode” on page 238.

## 2 Set the Type to “performance.”

Only available files according to the Type are listed in the Directory/File list box on the display.

**NOTE** In this step, the Load menu corresponding to the [SF2] button is not shown in the display. The Load menu appears when selecting a Performance to be loaded in step 6.

## 3 Specify the destination memory location in the User memory.

Select a Performance Bank and number.

**NOTE** When the Performance number is set to “all,” all the Performances in the selected Bank will be loaded.

## 4 Select the file to be loaded.

You can select any of the files listed in the Directory/File list box on the display.

## 5 Press the [ENTER] button so that the Performances in the selected Bank are listed on the display.

You can change the Performance Bank as source by pressing the Bank buttons on the front panel.

Performances



## 6 Move the cursor to the desired Performance.

The Load menu corresponding to the [SF2] button appears.

## 7 Press the [SF2] button (a prompt for confirmation appears).

Press the [DEC/NO] button to cancel the Load operation.

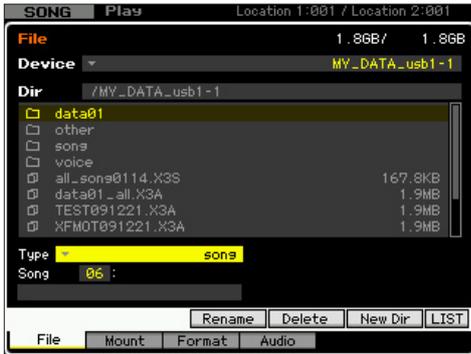
## 8 Press the [INC/YES] button to execute the Load operation.

### NOTICE

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

## Loading a specific Song or Pattern from an “all” or “all song” or “all pattern” file

This method is available only when entering the File mode from the Song mode or Pattern mode.



**1 Select a device and directory as source by following “Basic Procedure in the File mode” on page 238.**

**2 Set the Type to “song” or “pattern.”**

Only available files according to the Type are listed in the Directory/File list box on the display.

**NOTE** In this step, the Load menu corresponding to the [SF2] button is not shown in the display. The Load menu appears when selecting a Song or Pattern to be loaded in step 6.

**3 Specify the destination memory location in the User memory.**

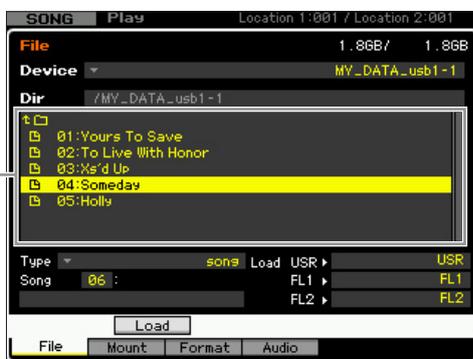
Select a Song number or Pattern number.

**4 Select the file to be loaded.**

You can select any of the files listed in the Directory/File list box on the display.

**5 Press the [ENTER] button so that the Songs or Patterns in the selected file are listed on the display.**

Songs



**6 Move the cursor to the desired Song or Pattern.**

The Load menu corresponding to the [SF2] button appears.

**7 Press the [SF2] button (a prompt for confirmation appears).**

Press the [DEC/NO] button to cancel the Load operation.

**8 Press the [INC/YES] button to execute the Load operation.**

### NOTICE

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

## Loading a specific Sample Voice from an “all” or “all song” or “all pattern” file

This method is available only when entering the File mode from the Song mode or Pattern mode.



**1 Select a device and directory as source by following “Basic Procedure in the File mode” on page 238.**

**2 Set the Type to “sample voice.”**

Only available files according to the Type are listed in the Directory/File list box on the display.

**NOTE** In this step, the Load menu corresponding to the [SF2] button is not shown in the display. The Load menu appears when selecting a Sample Voice to be loaded in step 7.

**3 Specify the destination memory location in the User memory.**

Select a Part to which the loaded Sample Voice is to be assigned.

**NOTE** The Sample Voice is loaded to an empty number assigned to the Song or Pattern selected before entering the File mode.

**4 Select the file to be loaded.**

You can select any of the files listed in the Directory/File list box on the display.

**5 Press the [ENTER] button so that the Songs or Patterns in the selected file are listed on the display.**

Songs



**6** Press the [ENTER] button so that the Sample Voices in the selected Song or Pattern are listed on the display.

**7** Move the cursor to the desired Sample Voice.  
The Load menu corresponding to the [SF2] button appears.

**8** Press the [SF2] button (a prompt for confirmation appears).  
Press the [DEC/NO] button to cancel the Load operation.

**9** Press the [INC/YES] button to execute the Load operation.

**NOTICE**

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

### Loading a WAV file or an AIFF file



**1** Select a device and directory as source by following “Basic Procedure in the File mode” on page 238.

**2** Set the Type to “WAV” or “AIFF:”

Only available files according to the Type are listed in the Directory/File list box on the display.

**NOTE** You can hear the sound of the currently selected WAV/AIFF file by pressing the [SF6] button (7). This conveniently lets you check the sound before loading the audio file.

**3** Specify the destination memory location in the User memory.

Select an Element (for a Normal Voice) or Key (for a Drum Voice) to which the WAV or AIFF file (loaded to an empty Waveform number) is to be assigned.

**NOTE** When entering the File mode from the Performance/Song/Pattern mode, set a Part to which the Voice including the loaded WAV or AIFF file is to be assigned.

**4** Select the file to be loaded.

You can select any of the files listed in the Directory/File list box on the display.

**5** Press the [SF2] button (a prompt for confirmation appears).

Press the [DEC/NO] button to cancel the Load operation.

**6** Press the [INC/YES] button to execute the Load operation.

**NOTICE**

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

### Loading a SMF file (Standard MIDI file)

This method is available only when entering the File mode from the Song mode or Pattern mode.



**1** Select a device and directory as source by following “Basic Procedure in the File mode” on page 238.

**2** Set the Type to “SMF”

Only available files according to the Type are listed in the Directory/File list box on the display.

Voice mode

Performance mode

Sampling mode 1

Song mode

Pattern mode

Mixing mode

Sampling mode 2

Master mode

Utility mode

File mode

Reference

### 3 Specify the destination memory location in the User memory.

Select a Song number or Pattern Number/Section to which the Standard MIDI File is to be loaded.

**NOTE** When you want to load the SMF file to a Song, enter the File mode from the Song mode. When you want to load the SMF file to a Pattern, enter the File mode from the Pattern mode.

### 4 Select the file to be loaded.

You can select any of the files listed in the Directory/File list box on the display.

### 5 Press the [SF2] button (a prompt for confirmation appears).

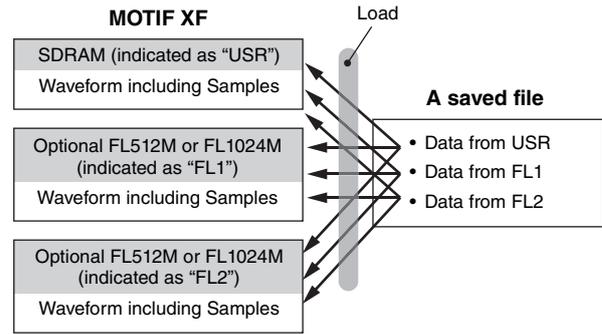
Press the [DEC/NO] button to cancel the Load operation.

### 6 Press the [INC/YES] button to execute the Load operation.

**NOTICE**

The Load operation overwrites any data previously existing in the destination internal memory. Important data should always be saved to a USB storage device connected to the USB TO DEVICE terminal or to a computer connected to the same network as the MOTIF XF (page 241).

#### Waveform data structure to be loaded



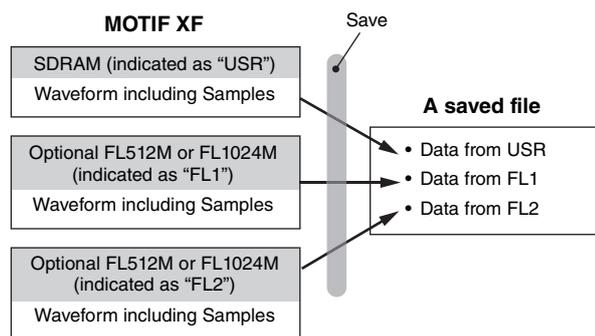
For each memory block (USR, FL1 and FL2) in a file, you can assign the destination memory block (USR, FL1 and FL2) of the MOTIF XF before executing the Load operation. You can also set whether or not the samples in a file will be loaded before executing the Load operation. These can be set at the right bottom ("Load" column) of the display.

When "USR" is selected, the data of the corresponding memory block in the file will be loaded to SDRAM. When "FL1" or "FL2" is selected, the data (Waveform and Samples) of the corresponding memory block in the file will be loaded to the Flash Memory Expansion Module 1 or 2. When "FL1 without sample" or "FL2 without sample" is selected, the data (Waveform excluding Samples) will be loaded to Flash Memory Expansion Module 1 or 2.

#### Note when saving/loading sample data

The Waveform including samples resides on the "USR" (SDRAM – page 34), "FL1," and "FL2" of the optional Flash Memory Expansion Module (page 34). The Waveforms can be saved to or loaded from the USB storage device or the computer connected to the same network as the MOTIF XF in the File mode for each memory block as shown below.

#### Waveform data structure to be saved



Regarding the data on SDRAM, the Save operation will save the sample data as a file regardless of the settings. Regarding the data on the optional FL512M/FL1024M, you can select whether or not the sample is to be saved at the left bottom of the display (below the file type) before executing the Save operation. When "FL1" or "FL2" is selected, the Save operation will save the Waveform data including the samples. When "FL1 without sample" or "FL2 without sample" is selected, the Save operation will save the Waveform data excluding the samples (in other words, only the parameter settings)

## Audio Record/Playback—[F4] Audio

With the Audio Record / Play function, you can record your performances on the MOTIF XF as WAV-format audio files (44.1-kHz, 16-bit, stereo) on a USB storage device or a computer connected via a network. What's more, the MOTIF XF can now also play WAV or AIFF audio files stored on a connected USB storage device or computer. For details, refer to the Owner's Manual.

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