



Reference Manual

Contents

WYAMAHA

Using the MODX Manuals	2
Basic Structure	3
Functional Blocks	3
Tone Generator Block	4
Tone Generator block	4
A/D Input Block	10
Sequencer Block	10
Arpeggio Block	11
Arpeggio categories	11
Sub categories	11
Arpeggio Type Name	12
Arpeggio-related settings	13
Arpeggio playback types	14
Creating an Arpeggio	16
Motion Sequencer Block	17
Effect Block	19
Effect structure	19
Effect connection	20
About the Vocoder Effect	20
Envelope Follower Block	21
Controller Block	22
Keyboard	
Pitch Bend wheel	22
Modulation wheel	
Assignable Switches	22
Knobs and Control Sliders	
Super Knob	22
Internal Memory	23

Reference

25

Display (touch panel) configuration	25
Performance Play (Home)	27
Motion Control	33
Mixing	50
Scene	55
Play/Rec	60
Normal Part (AWM2) Edit	
Element Common Edit (Common)	
Element Edit (Element)	
Element All (All Element)	130
Drum Part Edit	133
Key Common Edit (Common)	133
Key Edit (Key)	140
Normal Part (FM-X) Edit	145
Operator Common Edit (Common)	145
Operator Edit (Operator)	155
Common/Audio Edit (Common/Audio)	159
Category Search	176
Performance Category Search	176
Arpeggio Category Search (Arp Category Search)	180
Waveform Category Search (Waveform Search)	182
Rhythm Pattern	184
Utility	187
Live Set	212
Live Set	212
Live Set Edit (Edit)	213
Live Set Register (Register)	
Connecting an iPhone or iPad	217

Using the MODX Manuals

Your MODX6/MODX7/MODX8 synthesizer comes with four different reference guides—the Owner's Manual, the Reference Manual (this document), the Synthesizer Parameter Manual, and the Data List. While the Owner's Manual is packaged together with the synthesizer as a hardcopy booklet, this Reference Manual, the Synthesizer Parameter Manual, and the Data List are available for download from our web page as PDF documents.

Owner's Manual (hardcopy booklet)

Describes how to set up your MODX6/MODX7/MODX8 and how to perform basic operations.

- This manual explains the following operations.
- Selecting Performances
- Playing the Keyboard
- Creating Your Own Live Sets
- Editing the Settings
- Recording and Playback
- Using as a Master Keyboard
- Connecting a Microphone or Audio Equipment
- Making Global System Settings
- Connecting External MIDI Instruments
- Using a Connected Computer
- Saving/Loading Data

Reference Manual (this PDF document)

Describes the internal design of your MODX6/MODX7/MODX8 and the various parameters that can be adjusted and set.

🚰 Synthesizer Parameter Manual (PDF document)

Explains the Part parameters, effect types, effect parameters, and MIDI messages that are used for synthesizers incorporating the Yamaha AWM2 and FM-X tone generators. Read the Owner's Manual and Reference Manual first and then use this parameter manual, if necessary, to learn more about parameters and terms that relate to Yamaha synthesizers.

🚈 Data List (PDF document)

Provides lists such as the Waveform List, Performance List, Effect Type List, Arpeggio Type List, as well as reference materials such as the MIDI Implementation Chart.

Using the Reference Manual

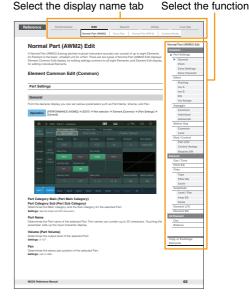
- Using the display name tabs along the upper part of each page from the Reference section, you can jump to the page for parameter explanations of the corresponding display.
- You can click on any page number from the Table of Contents or within descriptive text to jump to the corresponding page.
- You can also click on desired items and topics you want to refer to in the "Bookmarks" index to the left of the main window, and jump to the corresponding page. (Click the "Bookmarks" tab to open the index if it is not displayed.)
- If you want to find information on a specific topic, function or feature, select "Find" or "Search" from the Adobe Reader "Edit" menu and enter a key word to locate the related information anywhere in the document.
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http://www.adobe.com/products/reader/

NOTE The names and positions of menu items may vary according to the version of Adobe Reader being used.

Information

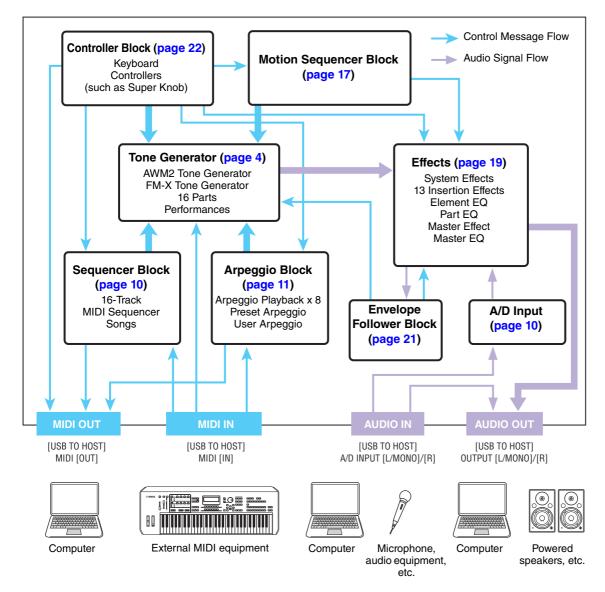
- The illustrations and LCD screens as shown in this manual are for instructional purposes only, and may appear somewhat different from those on your instrument.
- All other trademarks are the property of their respective holders.
- iPhone, iPad, and Lightning are trademarks of Apple Inc., registered in the U.S. and other countries.



Basic Structure

Functional Blocks

The MODX6/MODX7/MODX8 system consists of eight main functional blocks: Tone Generator, A/D Input, Sequencer, Motion Sequencer, Arpeggio, Controller, Effect, and Envelope Follower.



AWM2 (Advanced Wave Memory 2)

This instrument is equipped with an AWM2 tone generator block. AWM2 (Advanced Wave Memory 2) is a synthesis system based on sampled waves (sound material), and is used in many Yamaha synthesizers. For extra realism, each AWM2 Voice uses multiple samples of a real instrument's waveform. Furthermore, a wide variety of parameters—envelope generator, filter, modulation, and others—can be applied.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

FM-X

This synthesizer also features an FM-X tone generator, in addition to the AWM2 block. The abbreviation "FM" of FM-X stands for "frequency modulation," which is a special tone generation system that uses the frequency of one waveform to modulate another waveform, in order to produce a completely new one. In this synthesizer, there are eight FM Operators and a full 88 different Algorithm types. By changing the operator combination patterns, controlling the modulation with other parameters such as levels and envelopes, and using high-quality filters, effects, and EQ commonly with AWM2, you can create richly textured sounds that change in a highly complex fashion.

Tone Generator Block

The tone generator block is what actually produces sound in response to the MIDI messages received from the Sequencer block, Controller block, Arpeggio block and from the external MIDI instrument. The MIDI messages are assigned to sixteen independent channels, and the instrument is capable of simultaneously playing sixteen separate Parts, via the sixteen MIDI channels. However, the sixteen-channel limit can be overcome by using separate MIDI "ports," each supporting sixteen channels. The tone generator block of this instrument can handle MIDI messages over Port 1.

Tone Generator block

Performances

A Performance is a single set of sounds consisting of multiple Parts. You can change sounds as desired by selecting the appropriate Performance. Each Performance has two types of parameters; parameters unique to each Part and parameters common to all Parts. You can edit the entire Performance in the Common/Audio Edit display (page 159).

Part structure of a Performance

A Performance consists of 16 Parts and you can create Performances (in which multiple Parts or Parts are combined—in a layer, or in other configurations) using the keyboard.

Parts

Internally, there are three Part types: Normal Parts (AWM2), Normal Parts (FM-X), and Drum Parts. Normal Parts (AWM2) are mainly pitched musical instrument type sounds that can be played over the full range of the keyboard. Normal Parts (FM-X) are also mainly pitched musical instrument type sounds, using FM synthesis. Drum Parts are mainly percussion/drum sounds that are assigned to individual notes. A Normal Part (AWM2) can consist of up to eight Elements, a Normal Part (FM-X) can consist of up to eight Operators, and a Drum Part can consist of up to 73 Drum Keys.

An Element/Operator/Drum Key is the basic, smallest unit for a Part. By combining multiple Elements/ Operators/Keys, Parts can be created to produce even more realistic sounds or various richly textured types of sound. Each Part is created by editing parameters unique to each (Element Edit parameters/ Operator Edit parameters/Key Edit parameters) and parameters common to all the Elements/Operators/ Keys (Element Common Edit, Operator Common Edit, and Key Common Edit parameters.)

NOTE For instructions on editing a Normal Part (AWM2), see page 66. For instructions on editing a Normal Part (FM-X), see page 145. For instructions on editing a Drum Part, see page 133.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Normal Parts (AWM2), Normal Parts (FM-X), and Drum Parts

Normal Parts (AWM2)

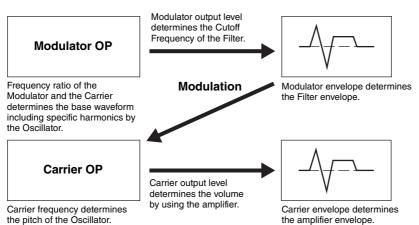
These Parts are played conventionally from the keyboard, with standard pitches sounding for each key, generated by AWM2. A Normal Part consists of up to eight Elements. Depending on the settings in the Part Edit, these Elements are sounded simultaneously, or different Elements are sounded according to the note range, velocity range and the XA (Expanded Articulation) settings (page 6).

The illustration shows an example of a Normal Part (AWM2). 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 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 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 Part 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, this instrument is even more flexible than this, since it allows up to eight independent Elements.

Normal Parts (FM-X)

These Parts are also played conventionally from the keyboard, with standard pitches sounding for each key, generated by FM synthesis. The sound for a Normal Part (FM-X) is created by modulating a frequency of a fundamental waveform with another waveform. An operator that generates a fundamental waveform is a "carrier," and an operator that modulates these waveforms is a "modulator." The combination of a number of Operators is called "Algorithm."

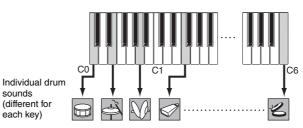
When the waveform output from the Operator is a simple sine wave, no harmonics are included other than the fundamental tone. However, you can create harmonics by modulating the waveform with other Operators. How harmonics can be created depends on the Modulators' output levels and the frequency rates of Carriers and Modulators. On the other hand, the basic pitch is determined by Carrier's frequency, and the output level is determined by the Carrier's output level. The figure described below shows a basic way to create FM sound by using an analog synthesizer.



Although the figure described above shows waveforms which are generated by two operators, the MODX has eight Operators. The combination of a number of Operators is called an "Algorithm" and this synthesizer has parameters for setting the Algorithm.

Drum Parts

Drum Parts are mainly percussion/drum sounds that are assigned to individual notes on the keyboard (C0 to C6). Unlike Elements, a Drum key is equivalent to the corresponding note, meaning that you cannot change its range. Drum or percussion sounds are assigned to each Drum Key. You can create various types of



Drum Parts by changing the drum or percussion sound assigned to each key and edit the parameters such as pitch and EG.

sounds

1				7
Velocity	Element 2	Element 4	Element 6	
	Element 1	Element 3	Element 5	

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Expanded Articulation (XA)

Expanded Articulation (XA) is a tone generation system that provides greater performance flexibility and acoustic realism. This feature 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

This instrument 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

The MODX reproduces these special, characteristic sounds by setting the XA Control parameter of certain Elements to "Key Off."

Subtle sound variations for each note played

The MODX more accurately reproduces these subtle sound variations by using the XA Control parameter settings "Cycle" and "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 the playing of high harmonics on an acoustic guitar. The MODX recreates these by allowing you to switch between the sounds while you play—using the [ASSIGN 1]/[ASSIGN 2] buttons and the XA Control parameter settings, "A.SW1 On," "A.SW2 On" and "A.SW Off."

NOTE You can turn the [ASSIGN 1]/[ASSIGN 2] button on or off also by transmitting the Control Change number specified in the Common/Audio Edit display ([Control] \rightarrow [Control Number]) (page 167) from an external device.

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 Parts as well. The XA feature opens up enormous potential for realizing authentic sounds, performing expressively and coming up with creative new styles of playing.

Motion Control System

The Motion Control System is a completely new feature for variably controlling Motions (rhythmical, multidimensional sound changes) in real time. This amazingly powerful feature dramatically and dynamically alters the sounds of the instrument in new, never-heard-before ways—changing texturally, rhythmically with the beats, providing cool, colorful lighting effects, and responding expressively to your creative passion. The Motion Control System has three main functions:

Super Knob:

For creating multi-dimensional sonic changes, and enhancing those changes with colorful, continually shifting lighting changes. Multiple parameters can be controlled simultaneously.

Motion Sequencer:

For continually variable sound changes. The powerful Motion Sequencer feature lets you dynamically change sounds by operating Parameters depending on sequences created in advance. It provides real time control for changing sounds depending on various sequences such as Tempo, Arpeggio, or the rhythm of external connected devices.

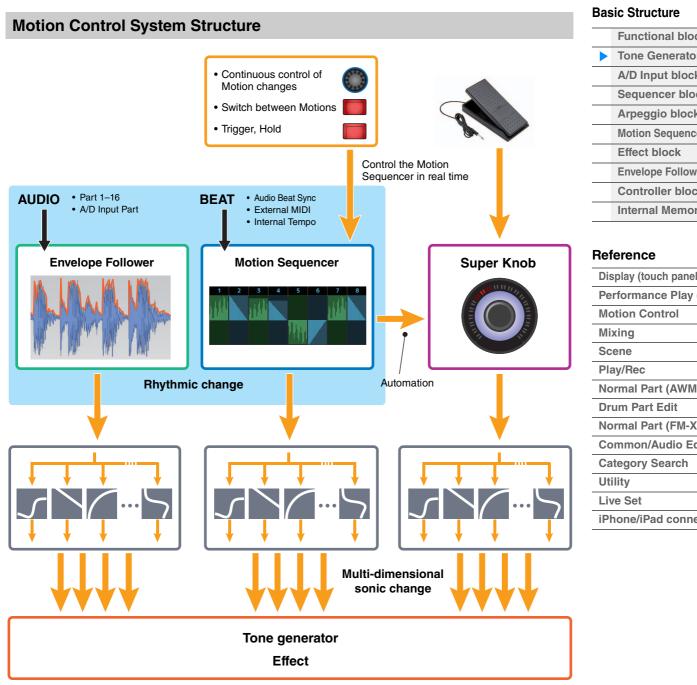
Envelope Follower:

Envelope Follower is a function for detecting the volume envelope of the input signal waveform and modifying sounds dynamically.

NOTE Envelope Follower can be controlled not only by the audio signal from an external device, but also by the output of all Parts.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory



For details on the Motion Control, refer to the website below:

http://www.yamaha.com/modx/

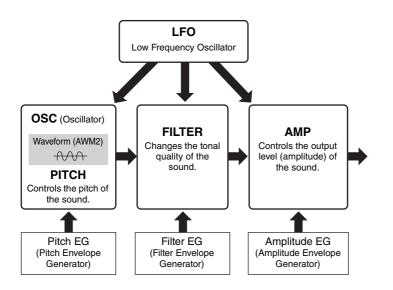
Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set

iPhone/iPad connection

Elements, Drum Keys and Operators

Elements/Drum Keys/Operators are the smallest "building blocks" in the MODX that comprise a Part. These small sound units can be built, enhanced and processed by a variety of traditional synthesizer parameters, such as Pitch EG, Filter EG, Amplitude EG, and LFO (shown below).



Oscillator

This unit allows you to assign the waveform (or basic sound material) to each Element/Operator/Key. Oscillator-related parameters can be set as follows.

- For Normal Parts (AWM2) and Drum Parts
 [EDIT] → Part selection → Element selection → [Osc/Tune] (page 107, page 140)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → Operator selection → [Form/Freq] (page 155)

Pitch

This unit allows you to control how the pitch changes over time. Pitch-related parameters can be set as follows.

- For Normal Parts (AWM2) and Drum Parts
 [EDIT] → Part selection → Element selection → [Osc/Tune] (page 107, page 140)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → Operator [Common] → [Pitch/Filter] (page 148)

Parameters related to Pitch EG can be set as follows.

- For Normal Parts (AWM2)
 [EDIT] → Part selection → Element selection → [Pitch EG] (page 111)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → Operator [Common] → [Pitch/Filter] (page 148)

Filter

This unit modifies the tone of the sound 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. Parameters related to Filter and Filter EG can be set as follows.

- For Normal Parts (AWM2) and Drum Parts
 [EDIT] → Part selection → Element selection → [Filter] (page 113, page 142)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → Operator [Common] → [Pitch/Filter] (page 148)

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Amplitude

This unit controls the output level (amplitude) of the Element/Drum Key/Operator. Parameters related to Amplitude and Amplitude EG can be set as follows.

- For Normal Parts (AWM2)
 [EDIT] → Part selection → Element selection → [Amplitude] (page 121)
- For Drum Parts
 [EDIT] → Part selection → Element selection → [Level/Pan] (page 143)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → Operator selection → [Level] (page 157)

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/Operator to create effects such as vibrato, wah and tremolo. There are two LFO types: Part LFO, which is common to all Elements/ Operators, and Element LFO, which is unique for each Element. Parameters related to Part LFO can be set as follows.

- For Normal Parts (AWM2)
 [EDIT] → Part selection → Element [Common] → [Mod/Control] → [Part LFO] (page 96)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → Operator [Common] → [Mod/Control] → [Part LFO] or [2nd LFO] (page 152)

Parameters related to Element LFO can be set as follows. [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Element LFO] (page 126)

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 for AWM2 and 64 for FM-X. When the internal tone generator block receives a number of notes exceeding the maximum polyphony, previously played notes are cut off. Keep in mind that this may be especially noticeable with Parts not having decay. Furthermore, the maximum polyphony applies to the number of Elements/Drum Keys used, not the number of Parts. When Normal Parts (AWM2) that include up to eight Elements are used, the maximum number of simultaneous notes may be less than 128.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

A/D Input Block

This block handles the audio signal input from the A/D INPUT [L/MONO]/[R] jacks. Various parameters such as volume, pan, and effect can be set for the audio signal and the sound is output together with other Parts. An Insertion Effect, the System Effects, the Master Effects, and the Master EQ can be applied to the audio signal input via the A/D INPUT [L/MONO]/[R] jacks.

Parameters related to the A/D Input block can be set as follows.

[PERFORMANCE (HOME)] → [Mixing] (page 50)

 $[EDIT] \rightarrow Part [Common] \rightarrow [Audio In] \rightarrow [Mixing] (page 161)$

The Effect which is applied to the audio signal input from the A/D INPUT [L/MONO]/[R] jacks can be set as follows.

 $[EDIT] \rightarrow Part [Common] \rightarrow [Audio In] \rightarrow [Routing] (page 162)$

The gain of the audio signal from the A/D INPUT [L/MONO]/[R] jacks can be adjusted via the A/D INPUT [GAIN] knob on the panel. Moreover, the on/off setting of the audio signal from the A/D INPUT [L/MONO]/ [R] jacks can be turned on/off via the A/D INPUT [ON/OFF] button.

 $[UTILITY] \rightarrow [Settings] \rightarrow [Audio I/O] \rightarrow "A/D Input" (page 190)$

Sequencer Block

This lets you create Songs by recording and editing your performances as MIDI data (from the controller block or an external device), allowing you to play the data back with the tone generator block.

Songs

A Song is created by recording your keyboard performance as MIDI sequence data to individual Tracks. The MODX can store up to 128 Songs.

Tracks

This is a memory location on the sequencer where your musical performances are stored. One Part can be recorded to one track. Since the MODX has 16 tracks for one Song, you can record and play back a 16-Part performance.

MIDI recording

You can record your keyboard performance to the Song. You can record knob operations, controller operations and Arpeggio playback as well as your keyboard playing to the specified Track as MIDI events. Your keyboard performance and controller/knob operations will be recorded to the Track when the corresponding Keyboard Control Switch for the Part is turned ON.

NOTE The Control Change messages and Parameter Change messages can be recorded by operating the Knobs. For details on Control Change messages, see the Synthesizer Parameter Manual PDF document.

NOTE For detailed instruction, refer to the Owner's Manual.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Arpeggio Block

This block lets you automatically trigger musical and rhythmic phrases by simply pressing a note or notes on the keyboard. Yamaha's 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.

Arpeggio categories

The Arpeggio types are divided into 18 categories (including "No Assign" and "Control/Hybrid Seq") as listed below. The categories are based on instrument type.

Arpeggio Type Category List

Piano	Piano
Keys	Keyboard
Organ	Organ
Gtr	Guitar
Bass	Bass
Str	String
Brass	Brass
WW	Woodwind
SynLd	Syn Lead

Pad	Pad/Choir
SynCp	Syn Comp
CPerc	Chromatic Perc
Dr/Pc	Drum/Perc
S.FX	Sound FX
M.FX	Musical FX
Ethnc	Ethnic
	No Assign
Ct/Hb	Control / Hybrid Seq

Sub categories

The Arpeggio categories are divided into the sub categories 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.

Arpeggio Type Sub Category List

Rock	Rock		World	World
Pop Rock	Pop Rock		General	General
Ballad	Ballad		No Assign	No Assign
Chill	Chillout / Ambient		Filter	Filter *
Нір Нор	Нір Нор		Exprs	Expression *
Funk	Funk		Pan	Pan *
Modern R&B	Modern R&B		Mod	Modulation *
Classic R&B	Classic R&B		PBend	Pitch Bend *
House	House / Dance Pop		Assign	Assign 1/2 *
Techno	Techno / Trance		Comb	Comb *
Jazz	Jazz / Swing		Zone	Zone Velocity *
D&B	D&B / Breakbeats		Z.Pad	Zone Vel for Pad *
Latin	Latin			

NOTE In the Category Search display, the Sub Categories marked with an asterisk (*) are displayed only when "Control/Hybrid Seq" is selected as the Category type.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

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 types with "_N" at the end of the type name (example: HipHop1_N)

These Arpeggios are for using with the Normal Part, and Arpeggios with complex notes can be created even when triggered by one note (page 14).

Arpeggio types with "_C" at the end of the type name (example: Rock1_C)

These Arpeggios are for using with the Normal Part, and correct Arpeggios can be created corresponding to the chord you play (page 14).

Arpeggio types with a normal name (example: UpOct1)

In addition to the above types, there are three playback types: the Arpeggios created for use of Normal Parts and played back using only the played notes and their octave notes (page 14), the Arpeggios created for use of Drum Parts (page 15), and Arpeggios containing mainly non-note events (page 15).

Arpeggio types with "_AF1", "_AF2", or "_AF1&2" at the end of the type name (example: Electro Pop AF1)

When these Arpeggios are played, both of [ASSIGN 1] and [ASSIGN 2] buttons are automatically turned ON and the phrase starts playback.

Arpeggio types with [Mg] at the beginning of the type name (example: [Mg]HardRock1)

These Arpeggios are for using with a Mega Voice.

Mega Voices and Mega Voice Arpeggios

Normal sound uses velocity switching to make the sound quality and/or level of a Part change according to how strongly or softly you play the keyboard—giving greater authenticity and natural response to these Parts. However Mega Voices have a very complex structure with many different layers that are 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.

The Arpeggio Type List in the Data List PDF document contains the following columns.

0	0	9	4	6	6	0	8	9	Φ
Main Category	Sub Category	ARP No.	ARP Name	Time Signature	Length	Original Tempo	Accent	Random SFX	Sound Type
ApKb	Rock	1	MA_70s Rock _ES	4/4	2	130			Acoustic Piano
ApKb	Rock	2	MB_70s Rock _ES	4/4	1	130			:
ApKb	Rock	3	MC_70s Rock	4/4	2	130			
ApKb	Rock	4	MD_70s Rock	4/4	4	130			
ApKb	Rock	5	FA_70s Rock	4/4	1	130			
ApKb	Rock	6	FB_70s Rock _ES	4/4	1	130			
ApKb	Rock	7	FC_70s Rock _ES	4/4	2	130			

NOTE Note that this list is for illustration purposes only. For a complete listing of the Arpeggio Types, see the Data List PDF document.

Main Category

Indicates an Arpeggio Main Category.

2 Sub Category

Indicates an Arpeggio Sub Category.

ARP No (Arpeggio Number)

Indicates the Arpeggio type number.

ARP Name (Arpeggio Name)

Indicates the Arpeggio Name.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Reference

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

MODX Reference Manual

6 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^{*1} is set to "off," the Arpeggio plays back for this length and stops.

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 14).

Random SFX

The circle indicates that the Arpeggio uses the SFX feature (page 14).

Sound Type

Indicates the sound type appropriate for the Arpeggio Type.

*1 The Loop parameter is set as follows. [EDIT] \rightarrow Part Selection \rightarrow Element/Operator [Common] \rightarrow [Arpeggio] \rightarrow [Common] (page 82)

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.

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" parameter to "Gate."
To continue the Arpeggio even if the note is released:	Set the "Hold" parameter to "On" and the "Trigger Mode" parameter to "Gate."
To toggle the Arpeggio playback on/off whenever the note is pressed:	Set the "Trigger Mode" parameter to "Toggle." The "Hold" parameter can be set to either "On" or "Off."

NOTE "Hold" is set as follows.

```
[EDIT] \rightarrow Part Selection \rightarrow Element/Operator [Common] \rightarrow [Arpeggio] \rightarrow [Common] (page 82)
```

NOTE When receiving a MIDI sustain message (control change #64) with both of "Arp Master" and "Arp Part" set to "On," you can obtain the same result by setting "Hold" to "On."

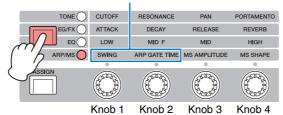
NOTE "Trigger Mode" is set as follows.

 $[\text{EDIT}] \rightarrow \text{Part Selection} \rightarrow \text{Element/Operator} [\text{Common}] \rightarrow [\text{Arpeggio}] \rightarrow [\text{Advanced}] \text{ (page 87)}$

Using the Knobs to control Arpeggios

By pressing the Knob Function [TONE]/[EG/FX]/[EQ]/[ARP/MS] button and selecting "ARP/MS," you can use the Knobs 1–2 to control Arpeggio playback. Try this out and listen for the changes in the sound. For details regarding the effect of the Knobs 1–2, see Quick Edit (page 37).

Arpeggio functions which can be controlled by Knob operations



Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Accent Phrases

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 "Vel Threshold" (Accent Velocity Threshold) parameter to a lower value.

NOTE "Vel Threshold" (Accent Velocity Threshold) parameter is set as follows.

 $[\text{EDIT}] \rightarrow \text{Part Selection} \rightarrow \text{Element/Operator} [\text{Common}] \rightarrow [\text{Arpeggio}] \rightarrow [\text{Advanced}] \text{ (page 87)}$

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

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:	Velocity Offset (Random SFX Velocity Offset) parameter
For determining whether or not the volume of the SFX sound is controlled by velocity:	Key On Ctrl (Random SFX Key on Control) parameter

NOTE "Random SFX," "Velocity Offset," and "Key On Ctrl" are set as follows.

 $[EDIT] \rightarrow Part Selection \rightarrow Element/Operator [Common] \rightarrow [Arpeggio] \rightarrow [Advanced] (page 87)$ NOTE The Random SFX function is not available for the Arpeggio which stops when the note is released.

NOTE For information on Arpeggio types that use the Random SFX function, refer to the "Arpeggio Type List" in the Data List PDF document.

Arpeggio playback types

There are three main Arpeggio playback types as described below.

Arpeggios for Normal Parts

Arpeggio types (belonging to all categories except for Drum/Perc and a part of Control/HybridSeq) created for use of Normal Parts have the following three playback types.

Playback of played notes only

The Arpeggio is played back using only the played note(s) and 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 a transposed sequence using the pressed note as the new root note. Adding notes to those already held changes the sequence accordingly. Arpeggios with this playback type have "_N" at the end of the type name.

Playback of a programmed sequence according to the played chord

These Arpeggio types created for use with Normal Parts are played back to match the chord type determined by detecting the notes you play on the keyboard. Arpeggios with this playback type have "_C" at the end of the type name.

- **NOTE** When the "Key Mode" parameter is set to "Sort" or "Sort+Drct," 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+Drct," a different sequence is played back depending on the order you play the notes.
- **NOTE** Since these types are programmed for Normal Parts, using them with Drum Parts may not produce musically appropriate results.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Arpeggios for Drum Parts

Arpeggio types in Drum/Perc categories are programmed specifically for use with Drum Parts, 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+Drct."

- **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 Parts, using them with Normal Parts may not produce musically appropriate results.

Arpeggios containing mainly non-note events

Arpeggio types (in Control/HybridSeq main categories with Filter, Expression, Pan, Modulation, Pitch Bend, and Assign 1/2 sub categories) 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," "Sort+Drct," or "Thru+Drct."

NOTE Settings related to Key Mode are set as follows.

 $[EDIT] \rightarrow Part Selection \rightarrow Element/Operator [Common] \rightarrow [Arpeggio] \rightarrow [Common] (page 82)$

Tips for Arpeggio playback

Arpeggios not only provide inspiration and full rhythmic passages over which you can perform, they give you quality MIDI data you can use in creating Songs, or fully formed backing parts to be used in your live performances. For instructions on using Arpeggio, see the Owner's Manual.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

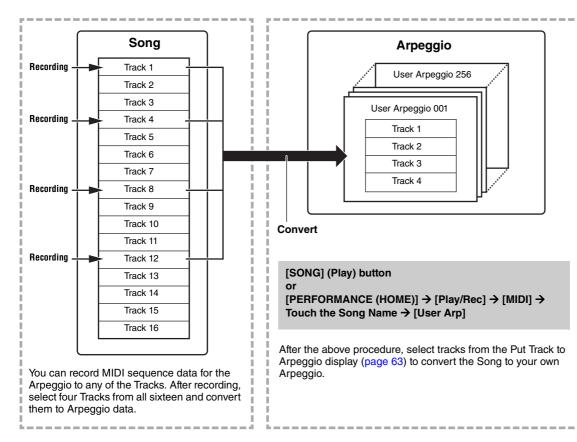
Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Creating an Arpeggio

In addition to using the preset Arpeggios, you can also create your own original Arpeggio data. First, record a phrase to Song Tracks (up to a maximum of four). Then, convert the Song (or the MIDI sequence data) to Arpeggio data from the Put Track to Arpeggio display.

1 Record MIDI sequence data to a Song.

2 Convert the MIDI sequence data (recorded to the Song) to Arpeggio data.



Determining how Song/Pattern data is converted to an Arpeggio – Convert Type

MIDI sequence data (of Song Tracks) can be converted to Arpeggio data in one of three ways, according to the Convert types below. These types can also be selected independently for each destination Track—providing enormous flexibility and performance control.

Normal (Normal Arpeggio)	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.		
OrgNotes (Original Notes)	Basically same as "Fixed" with the exception that the Arpeggio playback notes differ according to the played chord.		

Record the MIDI sequence data to a Song Track, referring to the previous instructions in this chapter as needed. The examples listed below are used as reference.

Creating a rhythm pattern (using a Drum Voice)

Track 1	Record a basic rhythm pattern using various drum instruments.	Convert via "Fixed."
Track 2-4	Record a different rhythm pattern using a specific drum instrument to each Track.	Convert via "Normal."

Creating a bass line (using a Normal Voice)

Track 1	Record a bass line using a specific desired key (root).	Convert via "OrgNote" after the OrgNotes Root is set.
Track 2–4		off

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Motion Sequencer Block

The powerful Motion Sequencer feature lets you dynamically change sounds by operating Parameters depending on sequences created in advance.

It provides real time control for changing sounds depending on various sequences such as Tempo, Arpeggio, or the rhythm of external connected devices.

You can assign up to eight desired Sequence types for one Lane.

You can also set up to four Lanes corresponding to the Motion Sequencer function for one Part. Up to eight Lanes can be used at the same time for the entire Performance.

The setting status (on or off) the Lanes in the entire Performance will be shown as follows.

 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{Motion} \ \mathsf{Control}] \rightarrow [\mathsf{Motion} \ \mathsf{Seq}] \ (\mathsf{page} \ \mathsf{44})$

Also, the parameters for each Lane are set as follows.

[PERFORMANCE (HOME)] → [EDIT] → Part selection → Element/Operator [Common] → [Motion Seq] → [Lane] (page 91)

				Lane	setting Sequence Patterns for the Lane										
A	🛍 Edit	- Part1 - Comm	ion			FX				J 1	40	===		ø	
Part Settings	Common	Motion Seq Master SW	Lane 1	LaneSW ON	MS FX ON	Trigger OFF	Seque	nce Sel	lect 3	4	5	6	7	8	
Effect	Lane	ON L	2	ON	ON	OFF	1	2	3	4	5	6	7	8	
Arpeggio		Part SW ON	3	OFF											
Motion Seq		Sync	4 O Speed	OFF	Key On R	eset 🔻	Loop		Ve	locity	Limit				
Mod / Control		Off	6		Ot	ff		ON		1	I		127		İ
		묘 Load Sequence	Edit Se	uence	Cycle 1	6	1 2	3 4	56	78	9 10	11 12	13 14	15 16	
Part 1	Common	Elem1 Elem2	Elem	3 Elei	m4 Ele	em5 E	lem6	Elem	7	Elem8	A	n			

Selected Sequence setting

Lane setting

Turning the Motion Sequencer on/off

The following settings are available for turning the Motion Sequencer playback on/off.

To play the Motion Sequence when the note is pressed:	Set the "LaneSW" parameter to "On," the "Trigger" parameter to "Off," and the" Sync" parameter to "Off."
To play the Motion Sequence when the [MOTION SEQ TRIGGER] button is pressed:	Set the "LaneSW" parameter to "On," the "Trigger" parameter to "On," and the "Sync" parameter to "Off."

NOTE "LaneSW" and "Trigger" are set as follows.

[EDIT] → Part selection → Element/Operator [Common] → [MOTION Seq] → [Lane] (page 91)

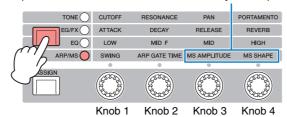
Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Using the Knobs to control Motion Sequencer

By pressing the Knob Function [TONE]/[EG/FX]/[EQ]/[ARP/MS] button and selecting "ARP/MS," you can use the Knobs 3–4 to control Motion Sequencer playback. Try this out and listen for the changes in the sound. For details regarding the effect of the Knobs 3–4, see Quick Edit (page 37).



Motion Sequencer functions which can be controlled by Knob operations

Editing Motion Sequences

You can create a custom Motion Sequence consisting of up to sixteen steps. For details about Editing, see page 93.

Parameters related to Motion Sequencer

In this instrument, Motion Sequencer is considered as a virtual controller and can be selectable in the "Source" parameter. The target parameter you want to control by Motion Sequencer is set in the "Destination" parameter. For details, see page 100.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Effect Block

This block applies effects to the output of the tone generator block as well as audio input block, processing and enhancing the sound. Effects are applied in the final stages of editing, letting you change the sound as desired.

Effect structure

System Effects—Variation and Reverb

System Effects are applied to the overall sound. 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 instrument is equipped with Variation and Reverb as System Effects. In addition, you can set the Send Level from Variation to Reverb. This parameter is used to apply Reverb to the signals output from the Variation. You can get a natural effect by applying Reverb depth to the Variation sound with the same level as that of the dry sound.

Insertion Effects

Insertion Effects can be applied individually to each of specified parts before merging signals of all parts. It should be used for sounds for which you want to drastically change the character. You can set different Effect types to the Insertion Effects A and B for each Part. These settings can be made from Part Edit \rightarrow [Effect] (page 75, page 136, page 150).

This synthesizer features 13 sets of Insertion Effects. They can be applied to Parts1–8 and four of the Parts 9–16 and A/D Input Part.

Master Effect

This block applies effects to the final stereo output signal of the entire sound. Multiple Effect types are available.

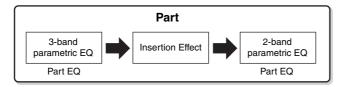
Element EQ

Element EQ is applied to each Element of the Normal Part (AWM2) and each key of the Drum Part. You can specify one of three different EQ shapes, including shelving and peaking.

 $\label{eq:NOTE} \mbox{ Element EQ does not affect the Input signals from the A/D INPUT [L/MONO]/[R] jacks.$

Part EQ

This EQ is applied to a Part before and after the Insertion Effect.



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, with shelving being available also for the lowest and highest bands.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Effect connection

Each EQ and Insertion Effect applied to each Part

2 Variation and Reverb related parameters

Setting: Part Edit → [Effect] → [Routing] (page 75, page 136, page 150) Common/Audio Edit → [Effect] → [Routing] (page 169)

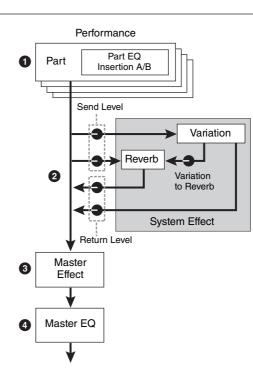
O Master Effect related parameters

Setting: Common/Audio Edit → [Effect] → [Master FX] (page 172)

Master EQ related parameters

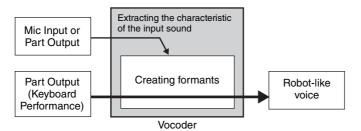
Setting: Common/Audio Edit → [Effect] → [Master EQ] (page 173)

NOTE Regarding the audio input signal from the A/D INPUT [L/ MONO]/[R] jacks, the effect is set in Common/Audio Edit → [Audio In].



About the Vocoder Effect

MODX features a Vocoder effect. 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. 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.



About Effect categories, Effect types, and Effect parameters

For information regarding the effect categories of this instrument and the effect types contained in their categories, see the "Effect Type List" in the Data List PDF document. For information on the effect parameters which can be set in the each effect type, see the "Effect Parameter List" in the Data List PDF document. For information on the descriptions of each effect category, each effect type, and each effect parameter, see the Synthesizer Parameters Manual PDF document.

About Preset settings

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 determined by setting "Preset" in each effect parameter display. For information on each effect type, see the Data List PDF document.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

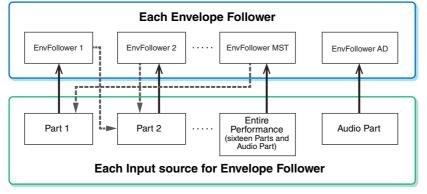
Reference

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Envelope Follower Block

Envelope Follower is a function for detecting the envelope of the input signal waveform and modifying sounds dynamically. This function allows you to control not only Part outputs but also input signals from external devices connected to the A/D INPUT [L/MONO]/[R] jacks.

The Input source of each Envelope Follower is fixed such as Part 1 for EnvFollower 1, Part 2 for EnvFollower 2, and the Audio Part for EnvFollower AD. However, the signal output from each Envelope Follower can be another "input source" for any desired destination such as each Part or even the entire Performance. For example, you can modify the sound of Part 2 by using the Envelope Follower for Part 1 (EnvFollower 1) as the "Source." The Envelope Follower as the "Source" and the target parameter to be controlled by the Envelope Follower (which is called "Destination") are set in the Control Assign display (page 100).



Input signal to Envelope Follower (Fixed)

Output signal from Envelope Follower (The Destination is flexible)



Selected Envelope Follower

Signal flow of Envelope Follower Input sources for Envelope Follower

 $\begin{array}{l} [\text{EDIT}] \rightarrow \text{Common/Audio Edit} \rightarrow [\text{Audio In}] \rightarrow [\text{Routing}] \rightarrow \text{``Envelope Follower''} (\text{EnvFollower AD}) \\ [\text{EDIT}] \rightarrow \text{Common/Audio Edit} \rightarrow [\text{Effect}] \rightarrow [\text{Routing}] \rightarrow \text{``Envelope Follower''} (\text{EnvFollower MST}) \\ [\text{EDIT}] \rightarrow \text{Part selection} \rightarrow \text{Element/Operator [Common]} \rightarrow [\text{Effect}] \rightarrow [\text{Routing}] \rightarrow \text{``Envelope Follower''} \\ (\text{EnvFollower 1-16}) \end{array}$

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Controller Block

This block consists of the keyboard, Pitch Bend and Modulation Wheels, Assignable Switches, Knobs, Control Sliders and Super Knob. By operating these controllers, you can transmit MIDI messages to the tone generator block to play and modify sounds, or to the DAW software to further control the sounds.

Keyboard

The keyboard transmits the note on/off messages to the Tone Generator Block (for sounding) and Sequencer Block (for recording). You can change the note range of the keyboard in octaves by using the OCTAVE [-]/[+] buttons, transpose the notes by using the OCTAVE [-]/[+] buttons while holding down the [SHIFT] button, and set how the actual velocity is generated according to the strength with which you play notes.

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. Roll the wheel upward/downward to bend the pitch upward/downward. This wheel is self-centering and will automatically return to normal pitch when released. The Pitch Bend Range setting can be changed in Part Edit \rightarrow [Part Settings] \rightarrow [Pitch] (page 68). Functions other than Pitch Bend can be assigned to the Pitch Bend wheel in the Part Edit \rightarrow [Mod/Control] \rightarrow [Control Assign] (page 100, page 153).

Modulation wheel

Even though the Modulation wheel is conventionally used to apply vibrato to the sound, many of the preset Performances 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. To avoid accidentally applying effects to the current Performance, make sure the Modulation wheel is set to minimum before you start playing. Various functions can be assigned to the Modulation wheel in Part Edit \rightarrow [Mod/Control] \rightarrow [Control Assign] (page 100, page 153).

Assignable Switches

According to the XA (Expanded Articulation) Control settings (page 6) in Element Edit \rightarrow [Osc/Tune] (page 107), you can call up specific Elements of the current Part by pressing each of these buttons during your keyboard performance. You can select how the on/off status of these buttons is switched in Common/ Audio Edit \rightarrow [General] (page 159). Furthermore, you can assign various functions (other than calling up specific Elements) to these buttons in Part Edit \rightarrow [Mod/Control] \rightarrow [Control Assign] (page 100, page 153).

Knobs and Control Sliders

These knobs and sliders let you change various aspects of the Part's sound in real time—while you play. For instructions on using the knobs and control sliders, see the Owner's Manual. For instructions on using the Knobs 1–4 (5–8), see "Quick Edit" (page 35).

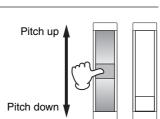
Super Knob

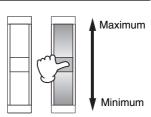
The Super Knob lets you simultaneously control the parameters common to all Parts (Assign 1–8) which are assigned to the eight knobs. For instructions on using the Super Knob, see the Owner's Manual. For the editable setting values for the Super Knob, see the Super Knob display (page 45). Also, for instructions on setting the Assign 1–8 controls, see the Control Assign display (page 166) for the Common/Audio Edit.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

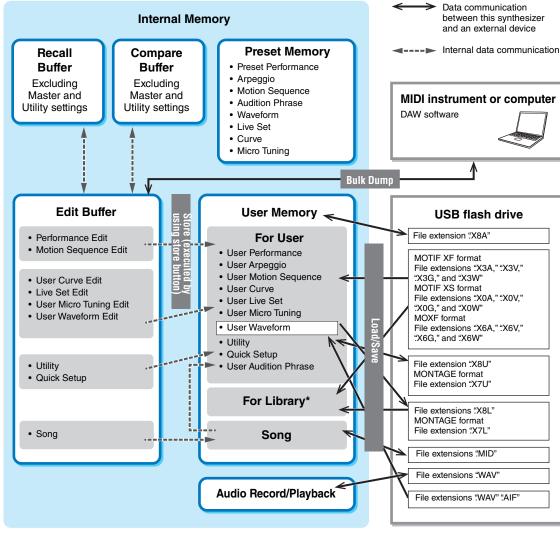
Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection





Internal Memory

The MODX creates a variety of different kinds of data, including Performances, Live Sets, and Songs. This section describes how to maintain the various types of data and use the memory devices/media for storing them.



Same as the "For User" area except followings: It does not include the Utility settings and the Quick Setup. Also, included Live Set is only one Bank for each imported file.

Preset Memory

Preset Memory is memory designed specifically for reading out data such as Preset Performance, Arpeggio, and Audition Phrase. You cannot overwrite the data in Preset Memory.

Edit buffer

The edit buffer is the memory location for edited data of these types: Performance, Live Set, and Song. Although the edit buffer is designed specifically for data writing and data reading, the data contained in the edit buffer is lost when the power is turned off. You should always store edited data to User memory before editing new performance or before turning off the power. Data other than Performance and Motion Sequence are automatically stored.

User memory

User data edited in the Edit buffer and utility settings for the entire system are stored in the dedicated area in the User memory. Up to eight Library files (.X8L) read from the USB flash drive are loaded in the dedicated area in the User memory.

This is read-write memory and the data will be kept even after the power is turned off.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
Sequencer block
Arpeggio block
Motion Sequencer block
Effect block
Envelope Follower block
Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Recall buffer and Compare buffer

If you've selected another Performance without storing the one you were editing, you can recall your original edits, since the edit buffer's contents are stored on backup memory, called the Recall buffer. Also, the instrument has a Compare buffer in which the sound settings prior to editing will temporarily be reinstated for comparison purposes. You can switch between the just-edited sound and its unedited condition, and hear how your edits affect the sound. Both of these are read-write memory types. However, you should make sure to store the sequence data before turning off the power, because any sequence data you've created will be lost when the power is turned off. For instructions on using the Compare function, see the Owner's Manual.

Basic Structure

Functional blocks
Tone Generator block
A/D Input block
 Sequencer block
 Arpeggio block
 Motion Sequencer block
 Effect block
 Envelope Follower block
 Controller block
Internal Memory

Display (touch panel) config.
Performance Play (Home)
Motion Control
Mixing
Scene
Play/Rec
Normal Part (AWM) Edit
Drum Part Edit
Normal Part (FM-X) Edit
Common/Audio Edit
Category Search
Utility
Live Set
iPhone/iPad connection

Search

Utility

Live Set

Reference

Display (touch panel)

Display (touch panel) configuration

This section explains the navigation bar which is common to all types of displays.

000	Navigation bar	4 5	6 7 8	
h L Live Set		FX IIIII <	J 140 💷 📀	
Bank Preset	✓ Page Best of MC	DDX 1	~	
CFX + FM EP 2 A.PIANO CFX+FM EP	Creation SYN PAD w/ Auto SK	Pearly Gates CHILL OUT Style ARP	Plastic Beat DANCE Style ARP	
Rd 1 Gallery 2 E.PIANO RD	Ocean Pad SYN PAD	FM Sweeping Poly	Start The Machine	
Wr Gallery 2 E.PIANO WR	Romance Strings	FM Linear Synth SYN PAD	Whip Motion SYN PAD	
All 9 Bars! ORGAN	Texas Chicken Pick E.GUITAR Clean	Multi Saw MW DA SYN COMP	Turn It On SYN COMP w/ M.SEQ	
교 Category Search	Freaky		АШМ2+ FM-X	
DANCE Style ARP				

HOME icon

Moves to the Performance Play display (page 27).

2 EXIT icon

Functions same as the [EXIT] button on the panel. Press this icon to exit from the current display and return to the previous level in the hierarchy.

INFORMATION] area

Displays helpful information, including the currently selected display name.

EFFECT icon

Touch the icon to call up the Effect Switch display (page 209). The icon turns off when any of the Effect blocks (Insertion, System or Master) is off.

6 QUICK SETUP icon

Displays the settings of Local Control ON/OFF and MIDI IN/OUT.

The keyboard-shaped icon lights up when Local Control is set to ON and turns off when Local Control is set to OFF.

When MIDI is set as the MIDI IN/OUT setting, a MIDI connector-shaped icon appears. When USB is set as the MIDI IN/OUT setting, a USB connector-shaped icon appears. Touch the desired icon to call up the corresponding Quick Setup display (page 188).

6 TEMPO SETTINGS icon

Displays the tempo of the currently selected Performance. Touch the icon to call up the Tempo Settings display (page 207).

1 LIVE SET icon

Touch the icon to call up the Live Set display (page 212).

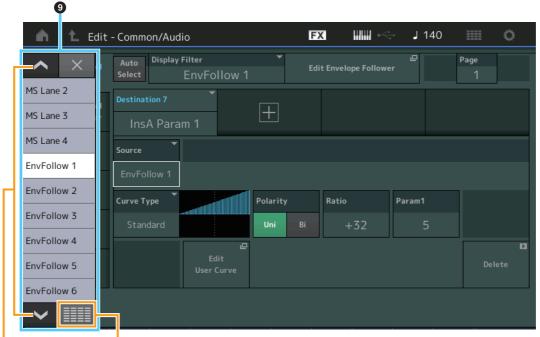
8 UTILITY icon

Touch the icon to call up the last opened display among the Utility displays.

Search

Live Set

Display (touch panel)



Display All

Scroll buttons

Display All button

n t	Edit - Common/#	Audio	F	× 11111	۲	٦	90		0
		_	×	Envelope Fo	llower	0		Page 1	
AsgnKnob 1	MS Lane 1	EnvFollow 6	EnvFollow 15		_	_			
AsgnKnob 2	MS Lane 2	EnvFollow 7	EnvFollow 16						
AsgnKnob 3	MS Lane 3	EnvFollow 8	EnvFollowAD						
AsgnKnob 4	MS Lane 4	EnvFollow 9	EnvFollowMst						
AsgnKnob 5	EnvFollow 1	EnvFollow 10	All	Ratio		Param	1		
AsgnKnob 6	EnvFollow 2	EnvFollow 11		+32		raram	5		
AsgnKnob 7	EnvFollow 3	EnvFollow 12					5		D
AsgnKnob 8	EnvFollow 4	EnvFollow 13						De	
SuperKnob	EnvFollow 5	EnvFollow 14							

Pop-up List

Displays setting values for parameters. When the setting values are displayed in multiple pages, you will need to use the Scroll buttons to scroll through the pages or the Display All button to display all of the setting values.

Search

Performance Play (Home)

From the Performance Play display you can play a selected Performance and edit some of the Performance-related settings.

Home



1 Performance name

Indicates the currently selected Performance name. Touching the parameter calls up the menu for Category Search, Edit, and Recall.

NOTE Once you edit any parameter in the selected Performance, a blue flag icon appears at right in the Performance Name.

Part indicator

When the cursor is on the Performance name or on Parts 1–8, this indicates whether Parts 9–16 are used or not.

When the cursor is on Parts 9–16, it indicates whether Parts 1–8 are used or not. If Parts 9–16 are not in use, this indicator is not shown.

3 Flag

Indicates the tone generation attributes of the currently selected Performance. (See chart below.)

Flag	Definition	
AWM2	Performance comprised only of AWM2 Parts	
FM-X	Performance comprised only of FM-X Parts	
AWM2+FM-X	Performance comprised of both AWM2 and FM-X Parts	
MC	Performance featuring Motion Control	
SSS	Performance featuring Seamless Sound Switching	

4 Knob functions

Indicates the functions currently assigned to the Knobs 1-4 (5-8).

Performance

	Но	ome			
	М	otion Control			
-		Overview			
		Quick Edit			
		Arpeggio			
		Motion Seq			
		Super Knob			
		Knob Auto			
-	Mixing				
-	Scene				
-	Pla	ay / Rec			
-		MIDI			
		Audio			

Search

Utility

Live Set

Performance

Home

Motion Control

Overview

Quick Edit

Arpeggio

Motion Seq

Super Knob

Knob Auto

Mixing

Scene

Play / Rec

MIDI

Audio

6 Type/Name Switch

Switches between the displays of Part Type/Category and Part Name. **Settings:** Type, Name

6 Part Types / Part Names

Indicates the Part types and categories or the Part names. Touching the parameter calls up the menu for Category Search, Edit, and Copy. To add another Part, touch the "+" icon.

O Common Motion Sequencer switch

Determines whether the Motion Sequencer of the Common/AD Parts is on or off. When all Lane switches of the Common/AD Parts are off, this switch is not shown. **Settings:** Off, On

Part Arpeggio On/Off switch

Determines whether the Arpeggio of each Part is on or off. When the Arpeggio and the Arpeggio Hold are set to on, "Arp Hold On" is displayed.

NOTE You can turn the Arpeggio Hold for the Part on or off by simultaneously holding down the [SHIFT] button and touching this switch.

Settings: Off, On

Part Motion Sequencer switch

Determines whether the Motion Sequencer of each Part is on or off. When all Lane switches of the Part are off, this switch is not shown.

Settings: Off, On

Note Limit

Determines the lowest and highest notes in the Part's note range. For example, setting a Note Limit of "C5–C4" lets you hear the Part by playing notes in the two ranges of C-2 to C4 and C5 to G8; notes played between C4 and C5 have no sound. For details about the Note Limit setting, see the Owner's Manual.

Settings: C -2 - G8

Weyboard Control switch

Determines whether the Keyboard Control for each Part is on or off. When this switch is set to off, the Part will not sound even you play the keyboard (unless the Part is selected). **Settings:** Off, On

Switching Mute on/off for Parts

Determines whether the Mute for each Part is on or off. **Settings:** Off, On

Switching Solo on/off for Parts

Determines whether the Solo for each Part is on or off. **Settings:** Off, On

Volume of Parts

Determines the Volume for the Part.

Settings: 0-127

NOTE When the triangle marks for the Volume are shown in blue, the volume change created by the control sliders is not reflected to the overall sound. When the value changed by the control slider reaches the value shown as a blue triangle, the triangle mark changes to white, and the volume change created by the control sliders are reflected to the overall sound.

Meter

Indicates the audio output level of the Part.

Search

Utility

Live Set

O View

Determines whether the detailed information of each Part is displayed (On) or not displayed (Off). The displayed information differs depending on the cursor position or the Control function settings. **Settings:** Off, On

NOTE When the cursor is on the Performance name on the Performance Play (Home) display, you can also switch the information views by pressing the [PERFORMANCE (HOME)] button.

This section explains when "View" is turned on.

Element view

This appears only when the currently selected Part is the Normal Part (AWM2), and Motion Control \rightarrow Overview \rightarrow Slider Function [Elem/Op Control] button is ON.



Element SW (Element switch)

Determines whether each Element is active or not. **Settings:** Off, On

Element Level

Determines the output level of the Element. **Settings:** 0–127

Performance

Но	ome					
Motion Control						
	Overview					
Quick Edit						
	Arpeggio					
	Motion Seq					
	Super Knob					
	Knob Auto					
Mi	ixing					
Scene						
Play / Rec						
	MIDI					
	Audio					

Reference	Performance	Edit	Search	Utility	Live Set

Drum Key view

This appears only when the currently selected Part is the Drum Part, and Motion Control \rightarrow Overview \rightarrow Slider Function [Elem/Op Control] button is ON.



Performance
Home

	Но	ome				
	Motion Control					
		Overview				
		Quick Edit				
		Arpeggio				
		Motion Seq				
		Super Knob				
		Knob Auto				
	Mi	ixing				
	Scene Play / Rec					
		MIDI				
		Audio				

Drum Key Level

Drum Key Level

Determines the output level of the Drum Key. **Settings:** 0–127

MODX Reference Manual	

Algorithm view

A

Reference

This appears only when the currently selected Part is the Normal Part (FM-X), and Motion Control \rightarrow Overview \rightarrow Slider Function [Elem/Op Control] button is ON.



Performance

Но	ome				
Motion Control					
Overview					
	Quick Edit				
	Arpeggio				
	Motion Seq				
	Super Knob				
	Knob Auto				
Mi	xing				
Scene					
Play / Rec					
	MIDI				
	Audio				

Operator Level

Algorithm (Algorithm Number)

Changes Algorithms. Settings: See the Data List PDF document. NOTE Tapping the Algorithm image calls up the Algorithm Search display.

Feedback (Feedback Level)

Waveforms can be changed by feeding some of the signal generated by an operator back through that operator. This allows you to set the feedback level. **Settings:** 0–7

Operator Level

Determines the output level of the Operator. **Settings:** 0–99

Performance

Search

J 140

FX

Utility

Ö

Live Set

Reference	Performance	Edit	Search	Utility	Live Set

Part – Note view

This appears only when the [PART CONTROL] button is turned on or the cursor is on the Note Limit. This is useful for checking the Layer/Split settings among Parts.



Performance

Но	ome						
Me	Motion Control						
	Overview						
	Quick Edit						
	Arpeggio						
	Motion Seq						
	Super Knob						
	Knob Auto						
Mixing							
Sc	ene						
Play / Rec							
	MIDI						
	Audio						

Velocity – Note view

This appears only when the cursor is on any velocity limit of Parts. This is useful for setting Velocity split among Parts.



Velocity Limit

Search

Utility

Live Set

Motion Control

Quick Edit

Arpeggio

Motion Seq

Super Knob

Knob Auto

Mixing Scene Play / Rec

> MIDI Audio

Overview

Performance

Motion	Control

From the Motion Control display you can edit all Motion Control settings, such as general sound settings, Arpeggio, and the Motion Sequencer of the currently selected Performance.

- The Motion Control section contains the following various displays.
- Overview
- Quick Edit
- Arpeggio
- Motion Sequencer
- Super Knob
- Knob Auto

Motion Control

Overview

Operation

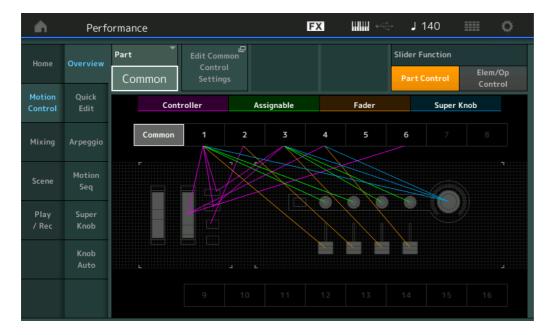
or

The Overview display indicates the illustration of the connection between Controllers and Parts. You can confirm the current settings here.

NOTE Lines between the most recently used controller and Part are shown in bold.

 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{Motion} \ \mathsf{Control}] \rightarrow [\mathsf{Overview}]$





Part

Indicates the currently selected Part. To confirm a Part's connections, select the Part here. **Settings:** Common, Part 1–16

Edit Common Control Settings/Edit Part Control Settings

Calls up the Control Assign display for the selected Part. For "Common," see page 166. For Part 1–16, see page 100.

Slider Function

Switches among Performance Control, Part Control, and Element/Operator Control. Settings: Part Control, Elem/Op Control NOTE You can store Slider function operations as Performance data.

Reference Performance	Edit	Search	Utility	Live Set
Controller				Performance
Determines whether or not the illustration The "Controller" here refers to:	of the connection betwe	een "Controller" and Pa	rt is shown.	Home
Pitch Bend wheel				Motion Control
Modulation wheel	Overview			
• [ASSIGN 1] and [ASSIGN 2] buttons (A	ssignable switches 1 ar	nd 2)		Quick Edit
• [MOTION SEQ HOLD] (Motion sequence	cer Hold) button			Arpeggio
 [MOTION SEQ TRIGGER] (Motion sequence) 	uencer trigger) button			Motion Seq
Settings: Off, On				Super Knob
Assignable				Knob Auto
Determines whether or not the illustration	of the connection betwe	een "Assignable" and P	art is shown.	Mixing
The "Assignable" here refers to:	Scene			
• Assignable Knobs 1–4 (5–8)				Play / Rec
Settings: Off, On				MIDI
Fader				Audio

Determines whether or not the illustration of the connection between "Fader" and Part is shown. The "Fader" here refers to:

• Control sliders 1-4 (5-8 / 9-12 / 13-16)

Settings: Off, On

Super Knob

Determines whether or not the illustration of the connection between "Super Knob" and Part is shown. The "Super Knob" here refers to:

• Super Knob

Settings: Off, On

Performance

Edit

Search

Utility

Live Set

Quick Edit

From the Quick Edit display you can make general sound settings. You can select whether the settings are commonly applied to all Parts or to only one selected Part.

Operation [PERFORMANCE (HOME)] → [Motion Control] → [Quick Edit]



Performance

	Home		
	Мо	Motion Control	
		Overview	
		Quick Edit	
		Arpeggio	
		Motion Seq	
		Super Knob	
		Knob Auto	
	Mixing Scene Play / Rec		
		MIDI	
		Audio	

Part

Indicates the currently selected Part. Select the Part you want to use Quick Edit with here. **Settings:** Common, Part 1–16

■ When "Part" is set to "Common"

You can edit the parameters commonly applied to all Parts.

Performance Name

Enters the desired name for the Performance. Performance names can contain up to 20 characters. Touching the parameter calls up the input character display.

FEG Atk (FEG 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. This parameter determines the offset value of the FEG (page 118) for the Element/Operator Common.

Settings: -64 - +63

FEG Decay (FEG Decay Time)

Determines how fast the Cutoff Frequency falls from maximum attack level to the sustain level. This parameter determines the offset value of the FEG parameter (page 118) for the Element/Operator Common.

Settings: -64 - +63

FEG Rel (FEG Release Time)

Determines how fast the Cutoff Frequency falls from the sustain level to zero when a note is released. This parameter determines the offset value for the FEG parameter (page 118) of the Element/Operator Common.

Settings: -64 - +63

Edit Master EQ

Calls up the Master EQ display (page 173) for Common/Audio Edit.

Search

Utility

Live Set

Performance

Н	Home		
M	Motion Control		
	Overview		
	Quick Edit		
	Arpeggio		
	Motion Seq		
	Super Knob		
	Knob Auto		
Mixing			
Sc	Scene		
PI	Play / Rec		
	MIDI		
	Audio		

Edit All Arp (Edit All Arpeggio)

Calls up the Arpeggio display (page 41) for Motion Control.

Edit Common MS (Edit Common Motion Sequencer)

Calls up the Motion Sequencer Lane display (page 165) for Common/Audio Edit.

Cutoff (Cutoff Frequency)

Determines the Cutoff Frequency for the Filter, when the Low Pass Filter is selected, for example, the larger the value the brighter the decay. This parameter determines the offset value of the Filter Cutoff Frequency (page 115) for the Element/Drum Key/Operator Common. **Settings:** -64 – +63

Resonance

Determines the emphasis given to the Cutoff Frequency. This parameter determines the offset value of the Filter Resonance (page 116) for the Element/Drum Key/Operator Common. **Settings:** -64 – +63

Settings: -64 – +6

FEG Depth

Determines the range over which the cutoff frequency of the Filter EG changes. This parameter determines the offset value of the FEG Depth (page 118) for the Element/Operator Common. **Settings:** -64 - +63

Portamento (Portamento Time)

Determines the pitch transition time when Portamento is applied. This parameter is synchronized to the same parameter for the Common/Audio Edit.

Settings: -64 - +63

Attack (AEG Attack Time)

Determines the speed of attack from the time a key is played until the maximum initial level of the AEG is reached. This parameter determines the offset value of the AEG (page 123, page 143, page 157) for the Element/Drum Key/Operator.

Settings: -64 - +63

Decay (AEG Decay Time)

Determines how fast the volume falls from maximum attack level to the sustain level. This parameter determines the offset value of the AEG (page 123, page 143, page 157). for the Element/Drum Key/ Operator

Settings: -64 - +63

Sustain (AEG Sustain Level)

Determines the sustain level at which the volume will continue while a note is held, after the initial attack and decay. This parameter determines the offset value of the AEG (page 123, page 143, page 157) for the Element/Drum Key/Operator.

Settings: -64 - +63

Release (AEG Release Time)

Determines how fast the volume falls from the sustain level to zero when a note is released. This parameter determines the offset value of the AEG (page 123, page 143, page 157) for the Element/ Drum Key/Operator.

Settings: -64 - +63

Low Gain (Maser EQ Low Gain)

Determines the level gain of the Master EQ Low band. **Settings:** -12dB - +12dB

Lo Mid Gain (Master EQ Low Mid Gain)

Determines the level gain of the Master EQ Low Mid band. **Settings:** -12dB - +12dB

Mid Gain (Master EQ Mid Gain)

Determines the level gain of the Master EQ Mid band. **Settings:** -12dB – +12dB

erence	Performance	Edit	Search	Utility		Live Set	
	in (Master EQ High Mid	•			Perfor	mance	
Determines Settings: -12	the level gain of the Master $_{2dB} = \pm 12dB$	EQ High Mid band.			Home		
Seumys12	<u>200 - + 1200</u>				Mo	otion Control	
•	n (Master EQ High Gain)					Overview	
	the level gain of the Master	EQ High band.				Quick Edit	
Settings: -12	2dB – +12dB					Arpeggio	
Pan (Perfo	ormance Pan)					Motion Seq	
	the stereo pan position of th	ne selected Performan	ce. This parameter offse	ets the same		Super Knob	
•	in the Part Edit setting.					Knob Auto	
Settings: Loc	3–C (center)–R63				Mi	xing	
	n (Variation Return)				Sc	ene	
	the Return level of the Varia	tion Effect.			Play / Rec		
Settings: 0-1	127					MIDI	
Rev Retur	rn (Reverb Return)					Audio	
Determines	the Return level of the Reve	rb Effect.					
· · · · ·							

Settings: 0-127

Common Clock Swing (Common Swing)

Determines the Swing of the Arpeggio/Motion Sequencer for the entire Performance. This is the offset value for the Swing of the Arpeggio/Motion Sequencer for each Part. **Settings:** -120 - +120

Common Clock Unit (Common Unit Multiply)

Adjusts the Arpeggio/Motion Sequencer playback time for the entire Performance.

This parameter is applied to the Part when the Unit Multiply parameter for Arpeggio/Motion Sequencer of the Part is set to "Common."

By using this parameter, you can create a different Arpeggio/Motion Sequencer type from the original one.

Settings: 50%-400%

200%: The playback time will be doubled and the tempo is halved.100%: The normal playback time.50%: The playback time will be halved and the tempo doubled.

Common Arp Gate Time (Common Arpeggio Gate Time)

Determines the Gate Time Rate (length) of the Arpeggio for the entire Performance. This is the offset value for the Gate Time Rate of the Arpeggio for each Part. **Settings:** -100 - +100

Common Arp Velocity (Common Arpeggio Velocity Rate)

Determines the Velocity Rate of the Arpeggio for the entire Performance. This is the offset value for the Velocity Rate of the Arpeggio for each Part.

Settings: -100 - +100

Common Motion Seq Amplitude (Common Motion Sequencer Amplitude)

Determines the Amplitude of the Motion Sequencer for the entire Performance. "Amplitude" determines how the entire Motion Sequence changes.

This is the offset value for the Part Motion Seq Amplitude, which is also the offset value for the Lane Amplitude. This results in that both of the Common and Part MS Amplitudes offset the Amplitude setting in the Lane (only when "MS FX" is set to on for the Lane).

Settings: -64 - +63

Common Motion Seq Shape (Common Motion Sequencer Pulse Shape)

Determines the Pulse Shape of the Motion Sequencer for the entire Performance. This changes the step curve shape of the sequence.

This is the offset value for the Part Motion Seq Pulse Shape, which is also the offset value for the Lane Pulse Shape. This results in that both of the Common and Part MS Pulse Shapes offset the Pulse Shape setting for the parameter in the Lane (only when "MS FX" is set to on for the Lane and "Control" is set to on for the parameter).

Settings: -100 - +100

Search

Utility

Live Set

Performance

Home

Mixing

Scene Play / Rec

MIDI

Audio

Motion Control

Overview

Quick Edit

Arpeggio

Motion Seq

Super Knob

Knob Auto

Common Motion Seq Smooth (Common Motion Sequencer Smoothness)

Determines the Smoothness of the Motion Sequencer for the entire Performance. "Smoothness" is the degree to which the time of the Motion Sequence is smoothly changed. This is the offset value for the Part Motion Seq Smoothness, which is also the offset value for the Lane

Smoothness setting for the parameter in the Lane (only when "MS FX" is set to on for the Lane). **Settings:** -64 – +63

Common Motion Seq Random (Common Motion Sequencer Random)

Determines the Random of the Motion Sequencer for the entire Performance. "Random" is the degree to which the Step Value of the Sequence is randomly changed.

This is the offset value for the Part Motion Seq Random when "MS FX" is set to on for the Lane. **Settings:** -64 – +63

When "Part" is set to Part 1–16

You can edit the parameters for the selected Part.



Part Category Main (Part Main Category) Part Category Sub (Part Sub Category)

Determines the Main Category and Sub Category of the Part.

The categories are keywords representing the general characteristics of the Parts. Selecting the appropriate category makes it easy to find the desired Part from the huge variety of Parts available. There are 17 Main Categories which indicate types of instruments. There are up to nine Sub Categories for each Main Category, indicating more detailed types of instruments.

Settings: See the Data List PDF document.

Reference

Search

Utility

Live Set

Part Name	Perfor	rmance
Enters the desired name for the Part. Part names can contain up to 20 characters. Touching the	H	ome
ameter calls up the input character display. parameters below are same as the ones when "Part" is set to "Common" (page 35). EG Atk (FEG Attack Time) EG Decay (FEG Decay Time) EG Rel (FEG Release Time) utoff esonance	M	otion Control
The parameters below are same as the ones when "Part" is set to "Common" (page 35).		Overview
FEG Atk (FEG Attack Time)		Quick Edit
FEG Decay (FEG Decay Time)		Arpeggio
FEG Rel (FEG Release Time)		Motion Seg
• Cutoff		
Resonance		Super Knob
FEG Depth		Knob Auto
Portamento (Portamento Time)	M	lixing
The setting values differ from the ones which "Part" is set to "Common."	Se	cene
Settings: 0–127	Pi	lay / Rec
Attack (AEG Attack Time)		MIDI
Decay (AEG Decay Time)		Audio

• Release (AEG Release Time)

FEG Sus (FEG Sustain Level)

Determines the FEG Sustain Level for the Part. This is the offset value for the FEG Decay2 Level of the Element/Operator Common (page 118). **Settings:** -64 – +63

Edit Part EQ

Calls up the Part EQ display (page 78) for Part Edit.

Edit Part Arp (Edit Part Arpeggio)

Calls up the Arpeggio display (page 82) for Part Edit.

Edit Part MS (Edit Part Motion Sequencer)

Calls up the Motion Sequencer Lane display (page 91) for Part Edit.

EQ Low Gain (3 band EQ Low Gain)

Determines the level gain for the Low band. **Settings:** -12dB - +12dB

EQ Mid Freq (3 band EQ Mid Frequency)

Determines the frequency for the Mid band. **Settings:** 139.7Hz–10.1kHz

EQ Mid Gain (3 band EQ Mid Gain)

Determines the level gain for the Mid band. **Settings:** -12dB – +12dB

EQ Mid Q (3 band EQ Mid Q)

Determines the EQ bandwidth of the Mid band. **Settings:** 0.7–10.3

EQ High Gain (3 band EQ Hi Gain)

Determines the level gain of the High band. **Settings:** -12dB – +12dB

Pan

Determines the stereo pan position of the selected Part. **Settings:** L63–C (center)–R63

Var Send (Variation Send)

Determines the Send level of the signal sent to the Variation effect. **Settings:** 0–127

Search

Utility

Live Set

Performance

Home

Motion Control

Overview

Arpeggio

Motion Seq

Super Knob

Knob Auto

Mixing

Scene

Play / Rec

MIDI

Audio

Quick Edit

Rev Send	(Reverb	Send)
-----------------	---------	-------

Determines the Send level of the signal sent to the Reverb effect. **Settings:** 0–127

Part Clock Swing (Part Swing)

Delays notes on even-numbered beats (backbeats) to produce a swing feel.

- +1 and higher: Delay the Arpeggio notes.
- -1 and lower: Advance the Arpeggio notes.
- 0: Exact timing as set by "Arpeggio/Motion Sequencer Grid" Value, resulting in no swing.

Judicious use of this setting lets you create swing rhythms and triplet feels, such as shuffle and bounce.

Settings: -120 - +120

Part Clock Unit (Part Unit Multiply)

Adjusts the Arpeggio/Motion Sequencer playback time for the selected Part. **Settings:** 50%–400%, Common

200%: The playback time will be doubled and the tempo is halved.

100%: The normal playback time.

50%: The playback time will be halved and the tempo doubled.

Common: The value set in the Unit Multiply common to the all Parts will be applied.

Part Arp Gate Time (Part Arpeggio Gate Time)

Determines how much the Gate Time (length) of the Arpeggio notes is offset from the original value. This is the offset value for the Gate Time Rate (page 86) of each Arpeggio Select setting. **Settings:** 0%–200%

Part Arp Velocity (Part Arpeggio Velocity Rate)

Determines how much the velocity of Arpeggio playback is offset from the original value. This is the offset value for the Velocity Rate (page 85) of each Arpeggio Select setting. **Settings:** 0%–200%

Part Motion Seq Amplitude (Part Motion Sequencer Amplitude)

Determines the Amplitude (page 93) of the Motion Sequencer for the selected Part. This is the offset value for the Lane Motion Seq Amplitude when "MS FX" is set to on for the Lane. **Settings:** -64 - +63

Part Motion Seq Shape (Part Motion Sequencer Pulse Shape)

Determines the Pulse Shape of the Motion Sequencer for the selected Part. This is the offset value for the Lane Motion Seq "Step Curve Parameter" (page 94) when "MS FX" is set to on for the Lane and "Control" is set to on for the parameter. Settings: -100 - +100

Part Motion Seq Smooth (Part Motion Sequencer Smoothness)

Determines the Smoothness of the Motion Sequencer for the selected Part. This is the offset value for the Lane Motion Seq Smoothness (page 93) when "MS FX" is set to on for the Lane.

Settings: -64 - +63

Part Motion Seq Random

Determines the Random of the Motion Sequencer for the selected Part. "Random" is the degree to which the Step Value of the Sequence is randomly changed.

Settings: 0-127

Search

Utility

Live Set

Arpeggio

From the Arpeggio display you can set Arpeggio-related parameters for multiple Parts. Touching the Arpeggio Type name on this display (or pressing the [CATEGORY] button on the panel) calls up a menu. In the displayed menu, touch [Search] to call up the Arpeggio Category Search display and touch [Number] to determine the Arpeggio Type by specifying the Arpeggio Number.

Operation [PERFORMANCE (HOME)] → [Motion Control] → [Arpeggio]

						View Arpeggi	o Type		
A	Perf	ormano	e		FX ····································	🔶 🚽 140 💷 🔅			
Home	Overview	Part 9-16		Arp Ister Off	Category	Number Range			
		Part	Arp	Category	Sub	Name]		
Motion Control	Quick Edit		ON	Control / HybridSeq	General	Mute 4/4			
		2	OFF	No Assign	No Assign	off			
Mixing	Arpeggio		ON	Syn Lead	Techno / Trance	MA_LayerHook1-03 _N			
Scene	Motion	4	ON	Syn Lead	Techno / Trance	MA_Simple Lead 01			
	Seq		ON	Bass	House / Dance Pop	MA_lbiza			
Play / Rec	Super Knob		ON	Drum/Perc	House / Dance Pop	MA_EDM Drum 12			
	Knob		OFF	Drum/Perc	Pop Rock	MD_Pop Rock 2			
	Auto		OFF	No Assign	No Assign	off			
		Arp Se	lect						
		1		2 3	4 5	6 7 8			

Performance

	Но	ome					
	Мо	otion Control					
		Overview					
		Quick Edit					
		Arpeggio					
		Motion Seq					
		Super Knob					
		Knob Auto					
	Mi	xing					
	Sc	ene					
	Pla	ay / Rec					
		MIDI					
		Audio					

Part 9-16 / Part 1-8

Switches between the displays of Parts 9–16 or the Parts 1–8. In case of the picture above, touch the "Part 9-16" to display the Arpeggio Types for the "Part 9-16."

Settings: Part 9-16 / Part 1-8

Arp Master (Arpeggio Master Switch)

Determines whether the Arpeggio is on or off for the entire Performance. This setting is applied to the [ARP ON/OFF] button on the panel.

Settings: Off, On

Sync Quantize (Sync Quantize Value)

Determines the actual timing at which the next Arpeggio playback starts when you trigger it while the Arpeggio of multiple Parts is playing back. When set to "off," the next Arpeggio starts as soon as you trigger it. The number indicates the clock.

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)

Arp (Part Arpeggio Switch)

Determines whether the Arpeggio for each Part is on or off. **Settings:** Off, On

Arp Select (Arpeggio Select)

Determines the Arpeggio Types. By selecting a type and pressing [SHIFT] + [EDIT], you can copy or exchange Arpeggios. For details, see "Copying or Exchanging Arpeggios" (page 86).

Settings: 1-8

Search

Utility

Live Set

View

Determines which information regarding Arpeggio Type is displayed. **Settings:** Category, Number, Range

■ When "View" is set to "Category"

Category (Arpeggio Category)

Settings: See the Arpeggio category list (page 11).

Sub (Arpeggio Sub Category)

Settings: See the Arpeggio sub category list (page 11).

Name (Arpeggio Name)

Settings: See the Data List PDF document.

■ When "View" is set to "Number"

•	Perf	orman	ce				FX		ricita de la constante de la	140	∎ ¢			
Home	Overview	Part 9-16	Ma	Arp aster	Quantize Off	*		Category	Nu	mber	Range	0=		
Motion Control	Quick Edit	Part 1	Arp ON	Preset	Bank			Number 10221	Mute 4	Name				
		2	OFF	Preset				0	off					
Mixing	Arpeggio	3	ON	Preset		4999	MA_La	MA_LayerHook1-03 _N						
Scene	Motion	4	ON	Preset				5016	MA_Sin	MA_Simple Lead 01				
	Seq		ON	Preset				3673	MA_lbi	za				
Play / Rec	Super Knob		ON	Preset				8321	MA_ED	MA_EDM Drum 12				
	Knob		OFF	Preset				6576	MD_Po	MD_Pop Rock 2				
	Auto	8	OFF	Preset				0	off	off				
		Arp Se	lect											
		1		2	3	4		5	6	7	8			

Bank (Arpeggio Bank)

Settings: Preset, User, Library 1-8

Number (Arpeggio Number)

Settings: See the Data List PDF document.

Name (Arpeggio Name)

Settings: See the Data List PDF document.

Home									
Motion Control									
	Overview								
	Quick Edit								
	Arpeggio								
	Motion Seq								
	Super Knob								
	Knob Auto								
Mi	xing								
Sc	ene								
Play / Rec									
	MIDI								
	Audio								

Reference

Search

Utility

Live Set

■ When "View" is set to "Range"

	Perf	ormanc	e		Ð	X 📖 🗠 J 140 🏢 🦚					
Home	Overview	Part 9-16		ster Sync	Quantize Off	*	Category N		nber	Range	
		Part	Arp		Name	0=	Velocit	y Limit	Note	Limit	
Motion Control	Quick Edit	1	ON	Mute 4/			1	127	C -2	G 8	
		2	OFF	off				127	C -2	G 8	
Mixing	Arpeggio	3	ON	MA_Lay	erHook1-03		1	127	C-2	G 8	
Scene	Motion	4	ON	MA_Sim	ple Lead 01		1	127	C -2	G 8	
	Seq	5	ON	MA_lbiz				127	C -2	G 8	
Play / Rec	Super Knob	6	ON	MA_EDN	1 Drum 12		1	127	C-2	G 8	
	Knob		OFF	MD_Pop	Rock 2		1	127	C -2	G 8	
	Auto	8	OFF	off			1	127	C -2	G 8	
		Arp Sel	ect								
		1			3		5	6		8	

Performance									
H	ome								
M	tion Control								
	Overview								
	Quick Edit								
	Arpeggio								
	Motion Seq								
	Super Knob								
	Knob Auto								
Μ	ixing								

Scene Play / Rec MIDI Audio

Name (Arpeggio Name)

Settings: See the Data List PDF document.

Velocity Limit (Arpeggio Velocity Limit)

Determines the lowest and highest velocity which can trigger Arpeggio playback. For details on settings of Velocity Limit, see the Owner's Manual. **Settings:** 1–127

Note Limit (Arpeggio Note Limit)

Determines the lowest and highest notes in the Arpeggio's note range. For details on settings of Note Limit, see the Owner's Manual.

Settings: C -2 - G8

Search

Utility

Live Set

Motion Seq (Motion Sequencer)

From the Motion Sequencer display you can set parameters related to Motion Sequencer for multiple Parts.

Operation [PERFORMANCE (HOME)] → [Motion Control] → [Motion Seq]

A	Perf	ormar	ice				F	x		t t	140		0
Home	Overview		м	MS Active Master 2/8		Commo	Common/Audio		OFF	OFF	OFF	OFF	
		Part	PartSW	1	2	3	4	Part	PartSW		2		4
Motion Control	Quick Edit		ON	OFF	OFF	OFF	OFF		ON	OFF	OFF	OFF	OFF
		2	ON	ON	ON	OFF	OFF	10	ON	OFF	OFF	OFF	OFF
Mixing	Arpeggio	3	ON	OFF	OFF	OFF	OFF	11	ON	OFF	OFF	OFF	OFF
Scene	Motion Seq	4	ON	OFF	OFF	OFF	OFF	12	ON	OFF	OFF	OFF	OFF
	Seq		ON	OFF	OFF	OFF	OFF	13	ON	OFF	OFF	OFF	OFF
Play / Rec	Super Knob		ON	OFF	OFF	OFF	OFF	14	ON	OFF	OFF	OFF	OFF
	Knob		ON	OFF	OFF	OFF	OFF	15	ON	OFF	OFF	OFF	OFF
	Auto	8	ON	OFF	OFF	OFF	OFF	16	ON	OFF	OFF	OFF	OFF
		Motio	on Seq Se	lect									
			1		:	3		5			7		8

Performance

Ho	ome						
Mo	otion Control						
	Overview						
	Quick Edit						
	Arpeggio						
	Motion Seq						
	Super Knob						
	Knob Auto						
Mi	xing						
Sc	ene						
Play / Rec							
	MIDI						
	Audio						

MS Master (Motion Sequencer Master Switch)

Determines whether the Motion Sequencer is on or off for the entire Performance. This setting is applied to the [MS ON/OFF] button on the panel.

Settings: Off, On

Active (Active Motion Sequencer)

Indicates the number of the active Lane. The number after slash indicates the maximum number of the Lanes which can be activated simultaneously.

PartSW (Motion Sequencer Part Switch)

Determines whether the Motion Sequencer is on or off for each Part/all Parts. **Settings:** Off, On

Lane Switch

Determines whether each Lane is on or off. You can set up to four Lanes corresponding to the Motion Sequencer function for one Part. Up to eight Lanes can be used at the same time for the entire Performance.

Settings: Off, On

Motion Seq Select (Motion Sequence Select)

Determines the Motion Sequence Type. By selecting a type and pressing [SHIFT] + [EDIT], you can copy or exchange Motion Sequences. For details, see "Copying or Exchanging Motion Sequences" (page 95). **Settings:** 1–8

Reference

Performance

Edit

Search

Utility

Live Set

Performance

Home

Motion Control

Overview

Quick Edit Arpeggio Motion Seq

Super Knob

Knob Auto

Mixing Scene

Play / Rec

MIDI

Audio

Super Knob

From the Super Knob display you can set parameters controlled by the Super knob.

Operation [PERFORMANCE (HOME)] → [Motion Control] → [Super Knob]



Assignable Knob 1–8 Destination Value 1

Assignable Knob 1–8 Destination Value 2

MS Master (Motion Sequencer Master Switch)

Turns the Motion Sequencer for the entire Performance on/off. This setting is applied to the [MS ON/OFF] button on the panel.

Settings: Off, On

Super Knob MS (Super Knob Motion Sequencer Switch)

Turns the Motion Sequencer applied to the Super Knob on/off. **Settings:** Off, On

Edit Super Knob Motion Seq

Shows the Knob Auto display, in which you can set the Motion Sequencer for the Super Knob.

Edit Super Knob

Shows the Control Assign display for Common/Audio Edit, in which you can set the parameters to be controlled by the Super Knob.

LED Pattern (Super Knob LED Pattern)

Determines the lighting pattern of the Super Knob.

Settings: Type 1, Type 2-1, Type 2-2, Type 3-1, Type 3-2, Type 4-1, Type 4-2, Type 5-1, Type 5-2, Type 6, Type 7-1, Type 7-2, Type 8-1, Type 8-2, Type 9, Type 10, Type 11, Off

Super Knob (Super Knob Value)

Determines the value of the Super Knob. **Settings:** 0–127

Super Knob Link

Turns the link between the Assignable Knob and the Super Knob on/off. When this is set to off, the function value assigned to the corresponding knob does not change even if the Super Knob is controlled. **Settings:** Off, On

Search

Utility

Live Set

Performance

Home

Mixing

Scene Play / Rec

MIDI

Audio

Motion Control

Overview

Quick Edit

Arpeggio

Motion Seq

Super Knob Knob Auto

Assignable Knob 1–8 Value

Determines the value for the Assignable Knobs 1–4 (5–8). **Settings:** 0–127

Assignable Knob 1–8 Destination Value 1 Assignable Knob 1–8 Destination Value 2

Determines the lowest value (Assignable value 1) and the highest value (Assignable value 2) for the corresponding Knob.

When you operate the Super Knob, the Assignable Knob value varies within the specified range. **Settings:** 0–127

Knob Auto

From the Knob Auto display you can set parameters related to Motion Sequencer applied to the Super Knob (Super Knob Motion Sequencer.) The parameter value of the Super Knob can be automatically controlled by the Motion Sequencer.

You can set only one Lane for the Super Knob Motion Sequencer.

NOTE Up to eight Lanes can be used at the same time for the entire Performance. However, the Lane set for the Super Knob is not included in the eight referred to here.

Operation [PERFORMANCE (HOME)] → [Motion Control] → [Knob Auto]

n	Perfo	ormance		Ð	X			J 1	40			¢.
Home	Overview	MS Master ON	Super Knob MS OFF	MS FX Trigger	r Sequ	ence Sele 2	ect 3	4	5	6	7	8
Motion Control	Quick Edit	Sync Part	Arp/MS Grid	Random								
Mixing	Arpeggio	Part 1	120	0								
Scene	Motion Seq	Sync	Speed	Key On Reset 🔻	Loop		Ve	locity	Limit			
Play / Rec	Super Knob	Off	63	Off		ON		1			127	
	Knob Auto	묘 Load Sequence	₽ Edit Sequence	Cycle 16	1 2	3 4 5	6	7 8	9 10	11 12	13 14	15 16

MS Master (Motion Sequencer Master Switch)

Turns the Motion Sequencer for the entire Performance on/off. This setting is applied to the [MS ON/OFF] button on the panel.

Settings: Off, On

Super Knob MS (Super Knob Motion Sequencer Switch)

Turns the Motion Sequencer applied to the Super Knob on/off. **Settings:** Off, On

MS FX (Super Knob Motion Sequencer FX Receive)

Determines whether or not the Motion Sequencer is affected by the knob operation when "ARP/MS" is selected with the Knob Function [TONE]/[EG/FX]/[EQ]/[ARP/MS] button. **Settings:** Off, On

Reference	Performance	Edit	Search	Utility	Live Set					
•• • •	er Knob Motion Seque hether the signal from the [I	••	•		Performance					
set to on, the I Settings: Off, O	set to on, the Motion Sequence will begin whenever you press the [MOTION SEQ TRIGGER] button.									
Determines th By selecting a	elect (Super Knob Moti e Motion Sequence Type. type and pressing [SHIFT] opying or Exchanging Mot	+ [EDIT], you can copy	, or exchange Motion S	equences. For	Overview Quick Edit Arpeggio Motion Seq Super Knob					
Determines wi	tuper Knob Motion Seq nich Part is synchronized w etting and the Arp/Motion S	ith the Super Knob Mot	-	ting is applied to	Knob Auto Mixing Scene Play / Rec					

Arp/MS Grid (Arpeggio/Motion Sequencer Grid)

Determines the type of note that serves as the basis for the Quantize or Swing. The parameter value is displayed in clocks.

For the Motion Sequencer, this parameter value is one step length. This setting is applied to the Part which is selected as the Sync Part (above).

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)

Random (Super Knob Motion Sequencer Random)

Determines the degree to which the Step Value of the Sequence is randomly changed. **Settings:** 0–127

Sync (Super Knob Motion Sequencer Sync)

Determines if the playback of the Motion Sequence applied to the Super Knob is synchronized to the Tempo, Beat, or Arpeggio of the Performance.

Settings: Off, Tempo, Beat, Arp

Off: Super Knob Motion Sequencer plays back according to its own clock and is not synchronized to an external clock.

Tempo: Super Knob Motion Sequencer is synchronized with the Performance tempo.

Beat: Super Knob Motion Sequencer is synchronized with the beat.

Arp: Super Knob Motion Sequencer is synchronized with the 1st beat of the measure of the currently playing Arpeggio.

Speed (Super Knob Motion Sequencer Speed)

Determines the speed of the playback of the Motion Sequence. This parameter is active when the Super Knob Motion Sequencer Sync is "Off." **Settings:** 0–127

Unit Multiply (Super Knob Motion Sequencer Unit Multiply)

Adjusts the Super Knob Motion Sequencer playback time.

This parameter is active when the Super Knob Motion Sequencer Sync is "Off."

Settings: 50%-6400%, Common

 $\ensuremath{\textbf{200\%}}$ The playback time will be doubled and the tempo is halved.

100%: The normal playback time.

50%: The playback time will be halved and the tempo doubled.

Common: The value set in the Unit Multiply common to the all Parts will be applied.

Key On Reset (Super Knob Motion Sequencer Key On Reset)

Determines whether or not the playback of the Motion Sequence is stopped when you play the keyboard. This parameter is active when the Super Knob Motion Sequencer Sync is set to something other than "Arp."

Also this parameter is not available when "Trigger" is set to "On."

Settings: Off, Each-On, 1st-On

Each-On: The Sequence resets with each note you play and starts the Sequence from the beginning.

1st-On: The Sequence resets with each note you play and starts the Sequencer from the beginning. If you play a second note while the first is being held, the Sequence continues cycling according to the same phase as triggered by the first note—in other words, the Sequence only resets if the first note is released before the second is played.

MIDI

Audio

Loop (Super Knob Motion Sequencer Loop)

Performance

Determines whether the Motion Sequence is played only once or repeatedly. Settings: Off, On

Velocity Limit (Super Knob Motion Sequencer Velocity Limit)

Determines the minimum and maximum Velocity values over which the Motion Sequence responds. Settings: 1-127

Edit

Search

Cycle (Super Knob Motion Sequencer Cycle)

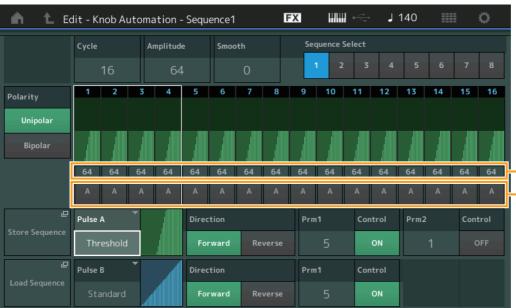
Selects the desired step length for the Motion Sequence. Settings: 1-16

Load Sequence

Loads Motion Sequence data in the User Memory. For details about Loading, see "Load" (page 198).

Edit Sequence

Calls up the Motion Sequence Setting display. You can create a custom Sequence consisting of up to sixteen steps.



Motion Seq Step Value

Utility

Motion Seq Step Type

Cycle (Super Knob Motion Sequencer Cycle)

Selects the desired step length for the Motion Sequence. Settings: 1-16

Amplitude (Super Knob Motion Sequencer Amplitude)

Determines how the entire Motion Sequence changes. Settings: 0-127

Smooth (Super Knob Motion Sequencer Smoothness)

Determines the smoothness of the time change of the Motion Sequence. Settings: 0-127

Sequence Select (Super Knob Motion Sequence Select)

Determines the Motion Sequence Type. By selecting a type and pressing [SHIFT] + [EDIT], you can copy or exchange Motion Sequences. For details, see "Copying or Exchanging Motion Sequences" (page 95). Settings: 1-8

Performance

-	101									
	Home									
	Motion Control									
		Overview								
		Quick Edit								
		Arpeggio								
		Motion Seq								
		Super Knob								
		Knob Auto								
	Mi	xing								
	Sc	ene								
	Play / Rec									
		MIDI								
		Audio								

Live Set

Search

Utility

Live Set

Polarity (Super Knob Motion Sequencer Polarity)

Determines the Sequence Polarity.

Settings: Unipolar, Bipolar

Unipolar: Unipolar changes only in a positive direction from a base parameter value according to the Sequence. **Bipolar:** Bipolar changes in both of positive and negative directions from a base parameter value.

Motion Seq Step Value (Super Knob Motion Sequencer Step Value)

Determines the Step Value for the Motion Sequence. You can control the Step Value 1–4, 5–8, 9–12 or 13– 16 by the Control Sliders 1–4 depending on the cursor position on the display. **Settings:** 0–127

Motion Seq Step Type (Super Knob Motion Sequencer Step Type)

Determines each Step Type of the Motion Sequence. You can switch between the Step Types A and B for the Step 1–4, 5–8, 9–12 or 13–16 by the SCENE [1/5]–[4/8] buttons depending on the cursor position on the display.

Settings: A, B

Pulse A / Pulse B (Super Knob Motion Sequencer Step Curve Type)

Determines the Curve Type of the parameter for each of "Pulse A" and "Pulse B." "Motion Seq Step Type" described above determines which curve set here is used for each step. The vertical axis indicates the step value and the horizontal axis indicates the time. For detail about the curve shapes, see page 102.

Settings: For Preset Bank: Standard, Sigmoid, Threshold, Bell, Dogleg, FM, AM, M, Discrete Saw, Smooth Saw, Triangle, Square, Trapezoid, Tilt Sine, Bounce, Resonance, Sequence, Hold

For User Bank: User 1–32 When a Library file is read: Curves in Library 1–8

Direction (Super Knob Motion Sequencer Step Curve Direction)

Determines the Direction of the Step Curve for the Motion Sequence. **Settings:** Forward, Reverse

Prm1 / Prm2 (Super Knob Motion Sequencer Step Curve Parameter)

Adjusts the shape of the Step Curve for the Motion Sequence. This parameter is not available depending on the Curve Type. Also the range of available parameter values differs depending on the Curve Type.

Control (Super Knob Motion Sequencer Step Curve Shape Control Switch)

Determines whether or not to control the shape of the Step Curve for the Motion Sequence by operating Knobs. This parameter is displayed only when "MS FX" is set to on. Also this parameter is not available depending on the Curve Type.

Settings: Off, On

Store Sequence

Stores the edited Motion Sequence data. For details about storing data, see "Store/Save" (page 201).

Performance

Но	Home						
Me	Motion Control						
	Overview						
	Quick Edit						
	Arpeggio						
	Motion Seq						
	Super Knob						
	Knob Auto						
Mi	xing						
Sc	ene						
PI	ay / Rec						
	MIDI						
	Audio						

Search

Utility

Live Set

Mixing

From the Mixing display you can adjust the volume and effect settings for each Part. **NOTE** The settings in the Mixing display are stored as part of Performance data.

Mixing

Operation [PERFORMANCE (HOME)] → [Mixing]

•	Perf	orma	nce						F	K	er⊂a €	J 140		¢.
Home		0∎ SynLd	0■ M.FX	0∎ SynCp	0∎ SynCp	0∎ Bass	0∎ Dr/Pc	$\left[+\right]$	$\left +\right $		D∎	l∎ Digi		0■ Mst
Motion Control	Mute /Solo Kbd Ctrl	Mute Solo	Mute Solo	Mute Solo	Mute Solo	Mute Solo	Mute Solo							
Mixing	3-band 2-band		0=		0		0=				0=			
Scene	Rev Send	0	0	20	(12) (24)	0	\bigcirc					\bigcirc	Rev Return Var Return	64 96
Play / Rec	Dry Level	(127)	(127)	(127)	(127)	(127)	(127)				(127)	(127)		
	Pan	\bigcirc	\mathbf{c}	C		C	C	7	8		\bigcirc	\bigcirc	Pan	\bigcirc
	Part 1-16 Audio	100	110	123	97	117	112	,	0		100	100		j 92

Part 1-16 /	Audio Switch

Part 1-16 / Audio Switch

Switches between the displays of the Mixing settings for Parts 1–16 or the Mixing settings for Parts 1–8, the Audio Part, the Digital Part, and the Master.

Settings: Part 1-16, Audio

Performance

Home										
Motion Control										
	Overview									
	Quick Edit									
	Arpeggio									
	Motion Seq									
	Super Knob									
	Knob Auto									
Mi	xing									
Sc	ene									
PI	ay / Rec									
	MIDI									
	Audio									

Reference	Performance	Edit	Search	Utility	Live Set
	ne of Parts 1–16 is s as the Mixing setting for				Performance
	tion Switch Part Cat				Home Motion Control
A	Performance	FX	J 140		Overview
					Quick Edit
Home	SynLd M.FX SynCp	SynCp Bass Dr/Pc	AD Digi	Mst	Arpeggio
	Mute /Solo	Mute Mute			Motion Seq
Motion Control	Kbd Ctrl Solo Solo Solo	Solo Solo			Super Knob Knob Auto
	3-band 0= 0= 0=				Mixing
Mixing	2-band				Scene
	Rev Send 0 0 20			lev Return 64	Play / Rec
Scene	Var Send (16) (24) (32)	24 0 0		ar Return 96	MIDI
Play	Dry Level (127) (127) (127)	(127) (127) (127)	(127) (127)		Audio
/ Rec					
	Pan CCC		\odot	Pan C	
	Part 1-16 Audio				
	100 110 123	97 117 112	100 100	92	

Part Category

Indicates the Main category for the Part. **Settings:** See the Data List PDF document.

Function Switch

Determines the Mute/Solo setting and the Keyboard Control settings for the selected Part 1–16. **Settings:** Mute/Solo, Kbd Ctrl

• When "Mute/Solo" is selected

n	Pert	formanc	e					FΣ		J	140		¢.
Home		0≡ SynLd M	0∎ .FX Syn	0∎ 0≡ CpSynCp	0∎ Bass	0∎ Dr/Pc	$\left + \right $	+	∎ AD	0∎ Digi			0∎ Mst
Motion	Mute /Solo Kbd	Mute M	lute Mu	te Mute	Mute	Mute							
Control	Ctrl 3-band		iolo So	lo Solo	Solo	Solo			 0=				0=
Mixing	2-band												
Scene	Rev Send	() (0 (2						\bigcirc	\bigcirc		Rev Return	64
Blav	Var Send		24 3									Var Return	(96)
Play / Rec	Dry Level	(127) (1	127) (12	(127)	(127)	(127)			(127)	(127)			
	Pan				5	6 M	7	8	\bigcirc	\bigcirc		Pan	
	Part 1-16			_ İ		Ī			İ	İ			i
	Audio		10 12	3 97	117	112			100	100			92

Mute/Solo (Part Mute/Solo)

Turns the Mute/Solo function on/off for the selected Part 1–16. When the function is on, this button lights.

Settings: Off, On

Reference	Performance	Edit	Search	Utility	Live Set

• When "Kbd Ctrl" is selected

A	Pert	formance				FX	€ →	J 140		¢
Home	Mute	0■ 0■ SynLd M.FX		p Bass Di	^{0■} +	+	0∎ AD	0∎ Digi		0∎ Mst
Motion Control	/Solo Kbd Ctrl									
Mixing	<mark>3-band</mark> 2-band			• () •						
-	Rev Send	$\bigcirc \bigcirc$	20 12				0	•	Rev Return	64
Scene	Var Send	16 24	32 24		•		0		Var Return	96
Play / Rec	Dry Level	(127) (127)	127 127) (127) (1	127		(127)	(127)		
	Pan	$\bigcirc \bigcirc$			c		C	\odot	Pan	Ċ
	Part 1-16 Audio	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	³ 4 123 97	5 1 6 	7 112	8	100	100		92

Performance							
	Но	ome					
	M	otion Control					
		Overview					
		Quick Edit					
		Arpeggio					
		Motion Seq					
		Super Knob					
		Knob Auto					
	Mi	xing					
	Scene						
	Play / Rec						
		MIDI					
		Audio					

Kbd Ctrl (Keyboard Control)

Turns the Keyboard Control function on/off for the selected Part 1–8. When the function is on, this button lights.

Settings: Off, On

3-band/2-band Switch

EQ



3-band/2-band Switch (3-band EQ/2-band EQ Switch)

Switches between the displays of the 3-band EQ or the 2-band EQ for Parts 1–16. **Settings:** 3-band, 2-band

EQ (Equalizer)

Displays the 3-band EQ or the 2-band EQ depending on the "3-band/2-band" setting. Touching the button calls up the menu of Part EQ Edit.

Rev Send (Reverb Send)

Adjusts the Reverb send level of the selected Part 1–16. **Settings:** 0–127

Search

Utility

Live Set

Var Send (Variation Send)

Adjusts the Variation send level of the selected Part 1–16. **Settings:** 0–127

Dry Level

Determines the level of the unprocessed (dry) sound of the selected Part 1–16. **Settings:** 0–127

Pan

Determines the stereo pan position of the selected Part 1–16. **Settings:** L63–C–R63

Volume (Part Volume)

Determines the output level of the selected Part 1–16. **Settings:** 0–127

■ When "AD" Audio Part or "Digi" Digital Part is selected

Determines the Mixing setting of the Audio/Digital Part.



A/D Part EQ (Audio Part Equalizer)

Displays the 2-band parametric EQ. Touching the button calls up the menu of Common/Audio Part EQ Edit.

A/D Part Rev Send (Audio Part Reverb Send) Digital Part Rev Send (Digital Part Reverb Send)

Adjusts the Reverb send level of the Audio Part/Digital Part. **Settings:** 0–127

A/D Part Var Send (Audio Part Variation Send) Digital Part Var Send (Digital Part Variation Send)

Adjusts the Variation send level of the Audio Part/Digital Part. **Settings:** 0–127

A/D Part Dry Level (Audio Part Dry Level) Digital Part Dry Level

Determines the level of the unprocessed (dry) sound of the Audio Part/Digital Part. **Settings:** 0–127

Performance							
	Но	ome					
	M	otion Control					
		Overview					
		Quick Edit					
		Arpeggio					
		Motion Seq					
		Super Knob					
		Knob Auto					
	Mi	xing					
	Scene						
	Play / Rec						
		MIDI					
		Audio					

Search

Utility

Live Set

Performance

A/D Part Pan (Audio Part Pan)

Digital Part Pan

Determines the stereo pan position of the Audio Part/Digital Part. **Settings:** L63–C–R63

A/D Volume (Audio Part Volume) Digital Part Volume

Determines the output level of the Audio Part/Digital Part. **Settings:** 0–127

■ When "Mst" (Master Part) is selected

Determines the Master Mixing settings.

•	Perf	ormai	nce						F	(¢ ← t	٦	140		ø
Home	Mute	0∎ SynLd	0∎ M.FX	0∎ SynCp	0∎ SynCp	0∎ Bass	0∎ Dr/Pc	$\left + \right $	$\left + \right $		0∎ AD	0∎ Digi			0≡ Mst
Motion Control	/Solo														
Mixing	<mark>3-band</mark> 2-band	0	0=								0				
Scene	Rev Send	\bigcirc	\bigcirc	20		\bigcirc	\bigcirc				$\underline{\bigcirc}$	\bigcirc		Rev Retu	
Play	Var Send Dry Level	(16)	(127)	(32)	(24)	0 (127)	0 (127)				 0 (127)	0 (127)		Var Retur	'n (96)
/ Rec	Pan	\bigcirc	\bigcirc	\bigcirc	\bigcirc	$\overline{\bigcirc}$	\bigcirc				\bigcirc	\bigcirc		Pan	Ċ
	Part 1-16 Audio		2	3 1	4	5 		7	8		i	i			i
		100	110	123	97	117	112				100	100			92

Master EQ (Master Equalizer)

Displays the 5-band parametric EQ. Touching the button calls up the menu of Master EQ Edit.

Rev Return (Reverb Return) Var Return (Variation Return)

Determines the return level of the Reverb/Variation effect. **Settings:** 0–127

Pan (Performance Pan)

Determines the stereo pan position of the entire Performance. This parameter offsets the same parameter in the Part Edit setting. **Settings:** L63–C–R63

Performance Volume

Determines the output level of the entire Performance. **Settings:** 0–127

Master EQ

Audio

Search

Utility

Live Set

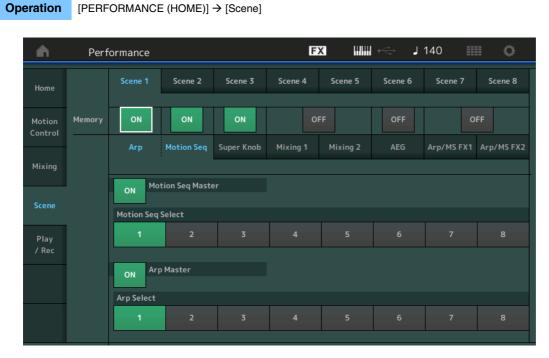
Scene

With the Scene function, you can store all parameter settings such as Arpeggio type, Motion Sequencer type, and the Part parameter values together as a "Scene." There are eight Scenes and you can select them by pressing the [SCENE] button. From the Scene display you can edit parameters related to the Scene function.

When [Memory] is turned on for the function, the Motion Sequencer type, or the Arpeggio type, the corresponding function information is automatically memorized to the currently selected [SCENE] button. For information on how to use the Scene function, see the Owner's Manual.

NOTE You can also change Scene Settings from any other operation displays. To do this, set the parameter value available for the Scene by operating the corresponding Knob or Control Slider, and press one of the SCENE [1/5]–[4/8] buttons while holding down the [SHIFT] button. Scenes 1 to 8 are assigned to each button.

Scene



Scene Select

Switches Scenes by selecting tabs. This setting is applied to the SCENE [1/5]–[4/8] buttons on the panel. **Settings:** 1–8

Memory (Memorize Switch)

Determines whether or not to memorize each parameter (such as Arpeggio, Motion Sequencer, Super Knob, Mixing, Amplitude EG, and Arp/MS FX) as a Scene. When this is off, the parameter is not displayed even when the corresponding tab is selected.

Settings: Off, On

When the "Arp/Motion Seq" tab is selected and both Memorize Switches for "Arp" and "Motion Seq" are set to ON

Motion Seq Master (Motion Sequencer Master Switch)

Determines whether Motion Sequencer is set to ON or OFF for the entire Performance in the selected Scene.

Settings: Off, On

Motion Seq Select (Motion Sequence Select)

Determines the Motion Sequence type for the selected Scene. By selecting a type and pressing [SHIFT] + [EDIT], you can copy or exchange Motion Sequences. For details, see "Copying or Exchanging Motion Sequences" (page 95). **Settings:** 1–8

MODX Reference Manual

Performance

Но	Home							
Motion Control								
	Overview							
	Quick Edit							
	Arpeggio							
	Motion Seq							
	Super Knob							
	Knob Auto							
Mi	xing							
Sc	ene							
Pl	ay / Rec							
	MIDI							
	Audio							

Settings:	0–127

Rev Send (Reverb Send)

Adjusts the Reverb Send level of each Part in the selected Scene.

Arp Master (Arpeggio Master Switch)

Determines whether Arpeggio is set to ON or OFF for the entire Performance in the selected Scene. Settings: Off, On

Arp Select (Arpeggio Select)

Determines the Arpeggio type for the selected Scene. Settings: 1-8

■ When the "Super Knob" tab is selected and the corresponding Memorize Switch is set to ON

•	Perf	ormance			G	X III	in the second s	90	≡ ¢
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ON	ON	ON	c	FF	OFF	C	FF
Control		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Mixing									
Scene			r						
Play / Rec							Supe	er Knob	
								64	

Performance

Home							
Motion Control							
	Overview						
	Quick Edit						
	Arpeggio						
Motion Seq							
Super Knob							
	Knob Auto						
Mi	xing						
Sc	ene						
Pla	ay / Rec						
	MIDI						
	Audio						

Super Knob (Super Knob Value)

Determines the Super Knob Value for the selected Scene. Settings: 0-127

■ When the "Mixing 1" tab is selected and the corresponding Memorize Switch is set to ON

A	Perf	ormance			F	×	⊷⊹ ↓	140	e o
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ON	ON	OFF	c	IN	OFF	0	FF
Mixing		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Scene	Rev Send	$\bigcirc \bigcirc$	20 12	$\bigcirc \bigcirc$					
Play	Var Send Dry Level		32 24	(0, 0) (127) (127)					
/ Rec	Pan	$\bigcirc \bigcirc$	$\bigcirc \bigcirc$	$\bigcirc \bigcirc$					
			³ 1 ⁴ 1	⁵ 1 ⁶ 1					
		100 110	123 97	117 112					

Reference

Performance

Edit

Search

Utility

Live Set

56

Search

Utility

Live Set

Performance

Var Send (Variation Send)

Adjusts the Variation Send level of each Part in the selected Scene. **Settings:** 0–127

Dry Level

Determines the level of the unprocessed (dry) sound for each Part in the selected Scene. **Settings:** 0–127

Pan

Determines the stereo pan position for each Part in the selected Scene. **Settings:** L63–C–R63

Volume (Part Volume)

Determines the volumes of each Part in the selected Scene. **Settings:** 0–127

When the "Mixing 2" tab is selected and the corresponding Memorize Switch is set to ON

•	Perf	ormance			F	x IIII	l ⊷⇔ – J	140	e o
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ON	ON	OFF		И	OFF	o	FF
Mixing		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
	Cutoff	+0 +0	+0 +0	+0 +0					
Scene	Res	(+0) $(+0)$	(+0) $(+0)$	(+0) $(+0)$					
Play / Rec	FEG Depth		+0 +0	+0 +0					
	Mute	Mute Mute	Mute Mute	Mute Mute					
		100 110	123 97	117 112					

Cutoff

Determines the Cutoff frequency for each Part in the selected Scene. **Settings:** -64 – +63

Res (Resonance)

Determines the resonance for each Part in the selected Scene. **Settings:** -64 – +63

FEG Depth

Determines the Filter Envelope Generator depth (amount of Cutoff Frequency) for each Part in the selected Scene. Settings: -64 - +63

Mute (Part Mute)

Determines the Mute setting for each Part in the selected Scene. **Settings:** Off, On

Но	ome			
M	otion Control			
	Overview			
	Quick Edit			
	Arpeggio			
	Motion Seq			
	Super Knob			
	Knob Auto			
Mi	xing			
Scene				
Pl	ay / Rec			
	MIDI			
	Audio			

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Reference	Performance	Edit	Search	Utility	Live Set

■ When the "AEG" tab is selected and the corresponding Memorize Switch is set to ON

A	Perf	ormance			E	x	÷⊂÷ J	140	¢ I
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ΟΝ	ON	OFF	0	N	ON	o	FF
		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Mixing	Attack	+15 +15	+15 +15	+15 +15					
Scene	Decay		+10 +0						
Play / Rec	Sustain	+25 +25	+25 +0	(+0) $(+0)$					
	Release	+0 +0	+0 +40						
			3 4	5 6					

Performance

Но	ome					
M	otion Control					
	Overview					
	Quick Edit					
	Arpeggio					
	Motion Seq					
	Super Knob					
	Knob Auto					
Mi	xing					
Sc	ene					
Pl	ay / Rec					
	MIDI					
	Audio					

Attack (AEG Attack Time)

Determines the AEG Attack Time for each Part in the selected Scene. **Settings:** -64 – +63

Decay (AEG Decay Time)

Determines the AEG Decay Time for each Part in the selected Scene. **Settings:** -64 – +63

Sustain (AEG Sustain Level)

Determines the AEG Sustain Level for each Part in the selected Scene. **Settings:** -64 - +63

Release (AEG Release Time)

Determines the AEG Release Time for each Part in the selected Scene. **Settings:** -64 – +63

When the "Arp/MS FX 1" tab is selected and the corresponding Memorize Switch is set to ON

A	Perf	ormance			F	× 1111	i k⊂tor J	140	e o
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ON	ON	OFF	C	N	ON	•	DN
Mixing		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Mixing	Swing	+0 +0	(+0) $(+0)$	+0 +0					
Scene	Unit	50% (00%	00% 50%	(00% (00%					
Play / Rec	Gate Time	00% 00%	00% 00%	00% 00%					
	Velocity	1 2	00% 00% 3 4	00% 00% 5 6					

erence	Performance	Edit	Search	Utility			Live Set
Swing	the Swing setting of Arpeg	raio and Motion Seque	ocer for each Part in the	e selected Scene	Per		mance
For details a Settings: -120	Home Motion Control						
Determines Scene. Settings: 50%	Unit Multiply) the Unit Multiply setting of %–400%, Common 0%: The playback time will be d			rt in the selected			Overview Quick Edit Arpeggio Motion Seq Super Knob
100 50%	0%: The normal playback time.%: The playback time will be hammon: The value set in the Un	Ived and the tempo doubled	J.				Knob Auto
	e (Gate Time Rate) the Gate Time Rate of Arp –200%	eggio for each Part in t	he selected Scene.				cene ay / Rec MIDI
Velocity (\	/elocity Rate)						Audio

Determines the Velocity Rate of Arpeggio for each Part in the selected Scene. **Settings:** 0%–200%

When the "Arp/MS FX 2" tab is selected and the corresponding Memorize Switch is set to ON

A	Perf	ormance			E	× """	i de la constante de la const	140 📗	i o
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ON	ON	OFF	C	N	ON		N
Mixing		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Scene	Amp		+0 +52	(+0) $(+0)$					
Play / Rec	Shape Smooth	+0 +0 -21 -10	+0 +0 +21 +0	$\begin{array}{c} +0 \\ +0 \\ +0 \\ \end{array}$					
	Random								

Amp (Motion Sequencer Amplitude)

Determines the Amplitude of Motion Sequencer for each Part in the selected Scene. For details about Amplitude, see "Quick Edit" (page 37).

Settings: -64 - +63

F

Shape (Motion Sequencer Pulse Shape)

Determines the Pulse Shape of Motion Sequencer for each Part in the selected Scene. For details about Pulse Shape, see "Quick Edit" (page 37). **Settings:** -100 - +100

Smooth (Motion Sequencer Smoothness)

Determines the Smoothness of Motion Sequencer for each Part in the selected Scene. For details about Smoothness, see "Quick Edit" (page 38). **Settings:** -64 – +63

Random (Motion Sequencer Random)

Determines the "Random" of Motion Sequence for each Part in the selected Scene. For details about Random, see "Quick Edit" (page 38). **Settings:** 0–127

Search

Utility

Live Set

Motion Control

Overview Quick Edit

Arpeggio Motion Seq Super Knob

Knob Auto

Mixing

Scene

Play / Rec

MIDI Audio

Performance

Play/Rec

You can playback/record MIDI data as Songs on this instrument itself or playback/record your performance (audio data) on a USB flash drive.

Play/Rec

MIDI

From the MIDI display you can playback/record your keyboard performance with using the selected Performance to the Song. You can playback/record knob operations, controller operations and Arpeggio playback as well as your keyboard playing to the specified Track as MIDI events.

Playback and Playback Standby

Operation

Press the [▶] (Play) button or

 $[\mathsf{PERFORMANCE}\;(\mathsf{HOME})] \rightarrow [\mathsf{Play/Rec}] \rightarrow [\mathsf{MIDI}]$



Track Play Switch

Song Length

Song Name

Indicates the selected Song name. Touching the Song Name calls up a menu for selecting Load, Rename, New Song and User Arpeggio.

Performance Name

Indicates the selected Performance Name.

Click Settings

Shows the Tempo settings display.

Time Signature

Indicates the meter of the Song.

Position (Song Position)

Determines the starting position of Recording/Playback. The indicator also shows the current position during playback.

Search

Utility

Live Set

Performance

Home

Mixing

Scene

Play / Rec

MIDI

Audio

Motion Control

Overview Quick Edit

Arpeggio

Motion Seq

Super Knob

Knob Auto

Tempo

Determines the Song tempo.

Settings: 5-300

NOTE The tempo can be set as follows.

[PERFORMANCE (HOME)] → [UTILITY] → [Tempo Settings] (page 207)

Store Song & Perf Settings

Changes the Song tempo, Loop settings, and the Performance called back along with the Song to the current settings.

This parameter is not available during:

- New recording (No previously recorded Song data.)
- Playback
- Recording Standby
- Recording

Loop

Determines whether the Song plays through a single time or continuously. When this is set to on, the Song is repeatedly played back between the "Loop Start" and "Loop End" points (below). **Settings:** Off, On

Loop Start / End

Determines the start position and the end position of Loop playback. The measure number is in the left cell and the beat number is in the right cell. This is not available when "Loop" is set to off.

Save As .mid File

Calls up the Store/Save display to save the Song as a file.

This button is not available during:

- New recording (No previously recorded Song data.)
- Playback
- Recording Standby
- Recording
- An external memory such as a USB flash drive is not connected.

Song Length

Indicates the length of the entire sequence.

Track Play Switch

Switches the playback for each track on/off. **Settings:** Off, On

MODX Reference Manual	MODX	Reference	Manual
-----------------------	------	-----------	--------

Search

Utility

Live Set

Record and Record Standby

or

Operation

Press the [●] (Record) button

 $[PERFORMANCE (HOME)] \rightarrow [Play/Rec] \rightarrow [MIDI] \rightarrow [●] (Record) button$

n	Perf	ormar	nce						E	X		₽ √_1	J	140	=		¢.
Home	MIDI	Song	Song Name Dia NewSong1					Perfo	ormance Frea		Dance	r		Click Settings			
Motion	Audio	Time	Signat	ure	Positio	n				Tem	ро						
Control	Control		4/4			001 :01:000 140			140								
Mixing		Rec Quantize Reco				Туре	Punch In					Punch Out					
Scene) 60			Pu	Punch 001 :01				C	02		:01				
Play / Rec		•														00:2	22
	Play	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
		1 100	² 110	³ 123	4 97	5 117	6 112	7	8	9	10	11	12	13	14	15	16

Performance									
	Home								
	Motion Control								

Me	otion Control							
	Overview							
	Quick Edit							
	Arpeggio							
	Motion Seq							
	Super Knob							
	Knob Auto							
Mi	xing							
Sc	ene							
PI	ay / Rec							
	MIDI							
	Audio							

Time Signature

Determines the meter of the Song. **Settings:** 1/16–16/16, 1/8–16/8, 1/4–8/4

Rec Quantize (Record 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. Record quantize aligns the timing of notes automatically, as you record.

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), Off

Record Type

Determines the Recording Type. This parameter is not available for the first recording.

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. It allows you to overwrite the already recorded data from the starting point to the ending point (measure/beat) that was specified before recording.

Punch In

Determines the starting point (measure and beat) for recording. This parameter is available only when "punch" is selected for "Record Type."

Punch Out

Determines the ending point (measure and beat) for recording. This parameter is available only when "punch" is selected for "Record Type."

NOTE For details about the Punch In/Out setting, see the Owner's Manual.

Undo

The Undo Job cancels the changes you made in your most recent recording session, restoring the data to its previous state.

Redo

Redo is available only after using Undo, and lets you restore the changes you made before undoing them.

Search

Utility

Live Set

Put Track to Arpeggio

This function 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 multiple tracks.



[►] (PLAY) button

 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{Play/Rec}] \rightarrow [\mathsf{MIDI}] \rightarrow \mathsf{Touch} \text{ the Song Name to call up the menu} \rightarrow [\mathsf{User Arp}] \text{ in the menu}$

n t	Put T	rack to Arpegg	io			FX		J 1	30		
Arp	Categor	-y	•	Sub Category Name				[7]			
1	No Assign				No Assign			UserArp1			
		Song Track	Arp Trac	:k 1 🔻	Arp Track 2	•	Arp Track 3	Arp Trac	.k 4	1	
				1	2		Off	0	ff		
		Convert Type	Arp Trac	:k 1 🔻	Arp Track 2	•				Org Not	es Root
			Org N	lotes	Norma	I				C	3
		Measure	Start		End						
				1	2						
									Store As	s User Arp	D

Arp (Arpeggio Number)

Determines the User Arpeggio number. One of the numbers currently not in use is automatically assigned by default. When a number already in use is selected, the previous Arpeggio data in the selected number will be overwritten.

Settings: 1-256

Category (Arpeggio Category)

Determines the Category setting (Main Category and Sub Category) for the created Arpeggio data. **Settings:** Refer to the Arpeggio Type Category List in the Reference Manual PDF document.

Name (Arpeggio Name)

Determines the User Arpeggio name. The Arpeggio name can contain up to 20 characters.

Song Track

Determines the track of the source Song for each Arpeggio track.

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.

Original Notes Root

Determines the root note when the Convert Type of any track is set to "Org Notes." This is available only when any track is set to "Org Notes."

Settings: C-2 - G8

Performance

Н	Home								
M	otion Control								
	Overview								
	Quick Edit								
	Arpeggio								
Motion Seq									
	Super Knob								
	Knob Auto								
Mi	ixing								
So	ene								
PI	ay / Rec								
	MIDI								
	Audio								

Reference	Performance	Edit	Search	Utility	Live Set				
	range of measures to be o	copied to the Arpeggio	data.		Performance				
Settings: 001-99	Motion Control								
Store As Use	Overview								
	nen all tracks are	Quick Edit							
set to off.	set to off.								
					Motion Seq				
					Super Knob				
Audio					Knob Auto				
From the Audio	display you can record yo	ur performance on the	instrument as WAV form	at (44.1-kHz.	Mixing				
	audio files to a USB flash d				Scene				
(assuming that	the USB storage device ha	as sufficient free memor	ry).		Play / Rec				
■ Playback	and Playback Standl	by			MIDI				
	and Flayback Stand	Jy			Audio				
Operation	[PERFORMANCE (HOME)] →	> [Play/Rec] → [Audio]							
- m	Performance	FX	🚛 🛶 🖌 140 📲	i o					



Current play position in the entire audio data

Audio Name

Indicates the name of the selected Audio file.

Position (Audio Position)

Determines the starting position of Playback. The indicator also shows the current position during playback.

Audio Volume

Determines the volume of the Audio Playback. This parameter cannot be changed during recording. **Settings:** 0–255

Audio Length

Indicates the length of the entire audio data.

Level Meter

Indicates the Audio Input/Output level.

MODX Reference Manual

Reference		Performance		Edit	Sear	rch		Utility		Live Set
■ Record a Operation		ecord Stand	-	tec] → [Audio] -	→ [●] (Record) b	outton			Но	rmance ome otion Control Overview
•	Perf	ormance		FX		J 140	iiii ¢	\$		Quick Edit
		Audio Name			0=					Arpeggio
Home	MIDI		NewAudio	Rec001						Motion Seq
Motion		Position								Super Knob
Control	Audio	00:00								Knob Auto
								_	M	ixing
Mixing										cene
									PI	ay / Rec
Scene							Recordable			MIDI
Play		•					74:00			Audio
/ Rec										
		+					Trigger Leve	el		
		+					manua	l		

Recordable (Audio Recordable Time)

Indicates available recording time. This parameter is displayed only during recording standby.

Trigger Level

Determines the method of starting recording. This parameter is displayed only during recording standby. If you set the trigger level to "manual," recording will begin whenever you press the [▶] (Play) button. Alternatively, if you set a value between 1 and 127, recording will begin automatically whenever the [▶] (Play) button is pressed and the playback volume exceeds that level. The level set here will be indicated by blue triangles in the level meter. For best results, set this parameter as low as possible to capture the entire signal, but not so low as to record unwanted noise. **Settings:** manual, 1–127

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Normal Part (AWM2) Edit

A Normal Part (AWM2) (having pitched musical instrument sounds) can consist of up to eight Elements. An Element is the basic, smallest unit for a Part. There are two types of Normal Part (AWM2) Edit displays: Element Common Edit display, for editing settings common to all eight Elements; and Element Edit display, for editing individual Elements.

Element Common Edit (Common)

Part Settings

General

From the General display you can set various parameters such as Part Name, Volume, and Pan.



[PERFORMANCE (HOME)] → [EDIT] → Part selection → Element [Common] → [Part Settings] → [General]

A	🛍 Edit	- Part1 - Comm	ion	ΕΣ	<u>ج</u> الللل	⇒ J 140	≡ ¢
Part Settings	General	Part Category Ma Syn Lead	_	ory Sub 🔻 Pai tronic	rt Name Fr	eaky Dancer	[7]
F.(D'L-L	Volume	Pan	Dry Level	VarSend	RevSend	Part Output
Effect	Pitch	100	С	127	16	0	MainL&R
Arpeggio	Zone Settings	Mono/Poly		Key Assign			
Motion	Zone	Mono	Poly	Single	Multi		
Seq	Transmit	Arp Play Only	Element Pan				
Mod / Control		OFF	ON				
		Velocity Limit		Note Limit		Velocity Offset	Velocity Depth
		1	127	C -2	G 8	64	64
-							
Part 1	Common	Elem1 Elem2	Elem3 Ele	m4 Elem5	Elem6	Elem8 All	

Part Category Main (Part Main Category) Part Category Sub (Part Sub Category)

Determines the Main category and the Sub category for the selected Part. **Settings:** See the Data List PDF document.

Part Name

Determines the Part name of the selected Part. Part names can contain up to 20 characters. Touching the parameter calls up the input character display.

Volume (Part Volume)

Determines the output level of the selected Part. **Settings:** 0–127

Pan

Determines the stereo pan position of the selected Part. **Settings:** L63–C–R63

Normal Part (AWM2) Edit

INOr	mai	Part (AWW2) Edit			
Co	omm	hon			
	Pa	rt Settings			
		General			
		Pitch			
		Zone Settings			
		Zone Transmit			
	Eff	iect			
		Routing			
		Ins A			
		Ins B			
		EQ			
		Ins Assign			
	Ar	peggio			
		Common			
		Individual			
		Advanced			
	Mo	otion Seq			
		Common			
		Lane			
	Mo	od / Control			
		Part LFO			
		Control Assign			
		Receive SW			
El	eme	nt			
	Os	sc / Tune			
	Pit	tch EG			
	Fil	ter			
		Туре			
		Filter EG			
		Scale			
	An	nplitude			
		Level / Pan			
		Amp EG			
		Scale			
	Ele	ement LFO			
	Ele	ement EQ			
AI	I Ele	ement			
	Os	SC			
_	Ba	lance			

Сору о	r Exchange	
Elemer	its	

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norr	mal Part (FM-X) Comr	non/Audio
	L	· · · · ·			
Dry Level Determines the dr "Part Output" is se Settings: 0–127	ry sound level (without effected in the sound level (without effected in the sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level) is a sound level (without effected in the sound level) is a sound level (without effected in the sound level) is a sound level is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) is a sound level) i	fect processing) of t	he selected Part. This is		Normal Part (AWM2) Edit Common Part Settings
					General
Var Send (Varia	•				Pitch
Determines the lev Output" is set to "I	vel of the selected Part th	hat is sent to the Vari	ation effect. This is availa	able only when "Part	Zone Settings
Settings: 0–127	Mainlan.				Zone Transmit
-					Effect
Rev Send (Reve	•				Routing
Output" is set to "I	vel of the selected Part the Maint & R	hat is sent to the Re	verb effect. This is availa	able only when "Part	Ins A
Settings: 0–127	Mainean.				Ins B
-					EQ
• •	rt Output Select)				Ins Assign
	audio output is used for				Arpeggio
-	USB1&2USB7&8, USB1U : Outputs in stereo (two chan		MONO]/[B] jacks		Common
	USB7&8: Outputs in stered			al.	Individual
	SB8: Outputs in mono (Char		O HOST] terminal.		Advanced
Off: No au	udio signal for the Part is outp	ut.			Motion Seq
Mono/Poly					Common
-	nic or polyphonic playba	ck for the selected F	art. Monophonic is for si	ngle notes only, and	Lane
	playing multiple simultan	eous notes.			Mod / Control
Settings: Mono, Poly	У				Part LFO
Key Assign (Ke	ey Assign Mode)				Control Assign
	aying method when the				Receive SW
	te off messages. For det	ails, refer to the Syn	thesizer Parameter Man	ual PDF document.	Element
Settings: Single, Mu	ilti ouble or repeated playback c	of the same note is not r	ossible. The first note will be	stopped then the next	Osc / Tune
•	e sounded.			stopped, then the flext	Pitch EG
	notes are sounded simultaned				Filter
In success	sion (especially for tambourine	e and cymbal sounds tr	at you would want to hing out	t to their full decay).	Туре
Arp Play Only (Arpeggio Play Only)				Filter EG
	er or not the current Part				Scale
	o on, only the note event	s of the Arpeggio pl	aypack affect the tone g	generator block.	Amplitude
Settings: Off, On					Level / Pan
•	lement Pan Switch)				
	er the individual pan set				Amp EG Scale
	\rightarrow [Amplitude] \rightarrow [Level ach Element in the Part is	- /	applied or not. When thi	IS IS SET TO "OTT," THE	Element LFO
Settings: Off, On					
-					Element EQ
Velocity Limit	inimum and maximum	alugo of the value of the	rongo within which a	Dort will record	All Element
	inimum and maximum va / sound for notes played				Osc
maximum value a	nd then the minimum val	ue, for example "93	to 34," then the Velocity	range covers both	Balance
	to 127." For instructions	on setting the Veloc	ity Limit, refer to the Own	ner's Manual.	
Settings: 1-127				:	
Note Limit					Copy or Exchange Elements
notes played withi	west and highest notes o in its specified range. If y 4," then the note range o	you first specify the	highest note and then th		

Settings: C -2 - G8

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio

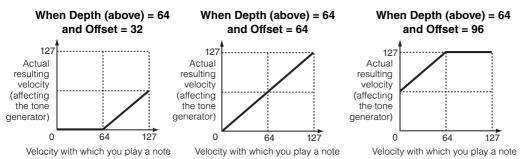
Velocity Depth (Velocity Sensitivity Depth)

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). **Settings:** 0–127

Velocity Offset (Velocity Sensitivity Offset)

Determines the amount by which played velocities are adjusted for the actual resulting velocity effect. This lets you raise or lower all velocities based on this setting value—allowing you to automatically compensate for playing too strongly or too softly.

Settings: 0-127



You can select a Part with touch operations within these displays: Normal Part (AWM2) Edit, Drum Part Edit, Normal Part (FM-X) Edit, and Common/Audio Edit. These instructions show an example display of Normal Part (AWM2) Edit.

Part

Shows a currently selected Part. By touching a Part, a pop-up list appears, and then you can select a different Part for editing.

Settings: Common, Part 1-16

Pitch

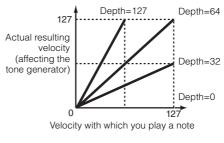
From the Pitch display you can set Pitch-related parameters for the Part.



 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element [Common] \rightarrow [Part Settings] \rightarrow [Pitch]$

A	🛍 Edit	- Part1 - Comn	non	Ð	< ₩₩ ~	⇒ J 140	¢
Part Settings	General						
Effect	Pitch	Portamento	Master SW	Part SW			
Enect	PILLI		ON	ON			
Arpeggio	Zone Settings		Mode		Time	Time Mode	Legato Slope
Motion	Zone		Fingered	Full-time	9	Rate 1	0
Seq	Transmit	Note Shift	Detune	Pitch Bend ↓	Pitch Bend ↑		
Mod / Control		+0	+0.0Hz	-2	+2		
		Micro Tuning Nam	ne 🔻		묘 Edit		
		Equal Tem	perament		User Tuning		
-							
Part 1	Common	Elem1 Elem2	Elem3 Ele	m4 Elem5	Elem6	Elem8 All	

When Offset (below) is set to 64:



Normal Part (AWM2) Edit

	ma	
Cc	omn	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	nt
	09	sc / Tune
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	El	ement LFO
	El	ement EQ
All	Ele	ement
	05	SC
	Ba	lance
Сс	ру	or Exchange

Copy or Exchange Elements

ference	Performance	Edit	Search	u Utili	lity Li	ive Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio	
Portomonto Ma	otor SW (Portamer	to Maater Switch)			Normal Par	rt (AWM2) Ed
	ed to create a smooth t	transition in pitch from th	ne first note playe	ed on the keyboard te		
next. The Portame		termines whether Portar			ance	111-00
or not.					Part Se	
Settings: Off, On						neral
Portamento Par	rt SW (Portamento	Part Switch)			Pito	
	•	lied to the selected Part	ornot		Zor	ne Settings
Settings: Off, On			JI Hot.		Zor	ne Transmit
-					Effect	
Portamento Mo					Ro	uting
Determines the Po					Ins	•
Settings: Fingered, I			1. Strata la	· · · · · · · · · · · · · · · · · · ·	lu a	
Fingered: one).	. Portamento is only applied	ed when you play legato (play	/ing the next note De	efore releasing the previo	ous	
,	Portamento is applied to a	all notes.			EQ	
						Assign
Portamento Tin					Arpegg	jio
-	tch transition time or ra	rate when Portamento is a	applied.		Сог	mmon
Settings: 0-127					Ind	lividual
Portamento Tin	ne Mode				Adv	vanced
	he pitch changes in tin	me			Motion	Seg
Settings: Rate 1, Tin		ne.				mmon
-	itch changes at the specifie	ied rate.			Lar	
	Pitch changes in the specific					-
	itch changes at the specifie					Control
Time 2: P	Pitch changes in the specifie	ed time within an octave.				rt LFO
Portamento Leg	nato Slone					ntrol Assign
		egato notes, when "Mono	Polv" is set to "	"Mono " (Legato note	Rec	ceive SW
		ayed before the previous		Mono. (Logari	Element	
Settings: 0–7					Osc / T	iune
0.16					Pitch E	G
Note Shift		" f Dort in oo	··		Filter	
•		etting for each Part in ser	nitones.		Тур	
Settings: -24 - +0 -	+24					ter EG
Detune						
Determines the pi	tch settings of the self	ected Part in 0.1 Hz incre	ements.		Sca	
Settings: -12.8Hz -	+0.0Hz - +12.7Hz				Amplit	
Ditab Band AA	(Ottob Dond Ban(- Unner/Lower)			Lev	vel / Pan
	(Pitch Bend Rang aximum Pitch Bend Ra				Am	np EG
Settings: -48 – +0 –		ange in semilones.			Sca	ale
Settings	+24				Elemer	nt LFO
Micro Tuning N	ame				Elemer	nt EQ
Determines the tur		elected Part. For informat cument.	ion on the variou	us tuning systems, se	All Elemen	
Settings: Equal Tem	nperament, Pure Major, Pure	re Minor, Werckmeister, Kirnbe				
	abic 1, Arabic 2, Arabic 3, I	User 1–8 (when the User Bar				;e

Determines the root note for the Micro Tuning function. This root note setting may not be necessary depending on the "Micro Tuning Name" type.

Settings: C-B

Copy or Exchange Elements

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Edit User Tuning

Calls up the User Micro Tuning Setting display.

n t Edi	t - User Micro	Tuning		FX	₩₩ ↔	J 140	≡ ¢
Tuning No.	Tuning Name	[7]					
1	User	1					
С#	D#		F#		G#	A#	
+	0 +	0		+0	+0	+	-0
c	D	E	F	G	A		В
+0	+0	+0	+0		+0	+0	+0
							Initialize

Tuning No. (Micro Tuning Number)

Indicates the selected User Micro Tuning Number. **Settings:** 1–8

Tuning Name (Micro Tuning Name)

Determines the name of the selected User Micro Tuning. Touching the parameter calls up the input character display.

C, C#, D, D#, E, F, F#, G, G#, A, A#, B

Adjusts the pitch of each note in 1 cent steps determines the Micro Tuning. **Settings:** -99 – +99

Initialize

Initializes the selected User Micro Tuning.

		Level / Pan
		Amp EG
		Scale
	El	ement LFO
	El	ement EQ
All	I Ele	ement
	0	SC
	Ba	alance
		or Exchange ents

Normal Part (AWM2) Edit

Part Settings General Pitch

> Zone Settings Zone Transmit

Routing Ins A Ins B EQ

Ins Assign

Common Individual Advanced Motion Seq Common

Arpeggio

Lane

Osc / Tune

Туре

Scale Amplitude

Filter EG

Pitch EG

Filter

Element

Mod / Control

Part LFO

Control Assign

Receive SW

Common

Effect

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Commo	n/Audio

Zone Settings

From the Zone Setting display you can set Zone-related parameters.

You can divide the keyboard into a maximum of eight independent areas (called "Zones"). To each Zone can be assigned different MIDI channels. This makes it possible to control several Parts of the multi-timbral tone generator simultaneously by a single keyboard or to control Parts of an external MIDI instrument over several different channels in addition to the internal Parts of this synthesizer itself—letting you use the MODX to effectively do the work of several keyboards.

To activate this display, select [UTILITY] \rightarrow [Settings] \rightarrow [Advanced], then set "Zone Master" to "ON." For details, refer to the Owner's Manual.

Operation

 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element [Common] \rightarrow [Part Settings] \rightarrow [Zone Settings]$

•	🛍 Edit	- Part1 - Comn	non	FΣ	< ₩₩ ~<	J 140	o
Part Settings	General						
Zone			Int SW Note Limit		Octave Shift 🔻	Transpose	
Eπect	Effect Pitch	ON	ON	C -2	G 8	+0	+0
Arpeggio	Zone Settings	Transmit Ch	Bank Select	Pgm Change	Vol/Exp	Pan	
Motion	Zone	Ch2	ON	ON	ON	ON	
Seq			MIDI Bank MSB	MIDI Pgm Num	MIDI Volume	MIDI Pan	
Mod / Control			000	001	100	С	
			MIDI Bank LSB				MIDI Send
			000				OFF
-							
Part 1	Common	Elem1 Elem2	Elem3 Ele	m4 Elem5	Elem6 Elem7	Elem8 All	

Zone (Zone Switch)

Determines whether the Zone function is used (on) or not (off). When this is set to off, all of the following parameters are not available.

Settings: Off, On

Int SW (Internal Switch)

Determines whether MIDI messages generated by playing the keyboard in the range of the selected Zone are transmitted to the internal tone generator or not. **Settings:** Off, On

Transmit Ch (Transmit Channel)

Determines the MIDI Transmit Channel for the selected Zone. **Settings:** Ch1–Ch16, Off

Note Limit

Determines the lowest and highest notes of the range for the selected Zone. The selected Zone will sound only when you play notes within this range. If you first specify the highest note and then the lowest note, for example "C5 to C4," then the note range covers both "C-2 to C4" and "C5 to G8." **Settings:** C - 2 - G8

Octave Shift

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

Transpose

Determines the amount in semitones by which the range of the Zone is shifted up or down. **Settings:** -11 - +0 (Default) - +11

Normal Part (AWM2) Edit

Norma	al Part (AVVIVI2) Edit
Com	mon
Р	art Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
E	ffect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
A	rpeggio
	Common
	Individual
	Advanced
N	lotion Seq
	Common
	Lane
N	lod / Control
	Part LFO
	Control Assign
	Receive SW
Elem	ient
C	osc / Tune
Р	itch EG
F	ilter
	Туре
	Filter EG
	Scale
A	mplitude
	Level / Pan
	Amp EG
	Scale
E	lement LFO
	lement EQ
All E	lement
C	lsc
E	Balance

Сору	or	Exchange	
Eleme	ent	S	

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Nor	mal Part (FM-X) Com	mon/Audio
		•			
•	ansmit Bank Select)				Normal Part (AWM2) Edit
	er Bank Select MSB/LSE		smitted to the external to	one generator or not.	Common
Settings: Off, On	le when the Transmit Ch	annel is set to off.			Part Settings
					General
	Fransmit Program Ch	•			Pitch
	er Program Change me		ed to the external tone g	generator or not. This	Zone Settings
Settings: Off, On					Zone Transmit
-					Effect
	nit Volume/Expression	-		an and This is and	Routing
	ier volume messages ar e Transmit Channel is se		external tone generator	or not. This is not	Ins A
Settings: Off, On					Ins B
-					EQ
Pan (Transmit F	-			ant This is not	Ins Assign
	ier Pan messages are tra e Transmit Channel is se		inal lone generator or i	not. This is not	Arpeggio
Settings: Off, On					Common
					Individual
	B/LSB (Bank Select N ank numbers to be trans		l topo goporator when	polooting the	Advanced
	Bank consists of MSB a				Motion Seq
is set to off.					Common
Settings: 000-127					Lane
MIDI Pam Num	(Program Change N	umber)			Mod / Control
-	ogram Change Number	•	the external tone gene	rator when selecting	Part LFO
	This is not available whe	en the "Transmit Prog	ram Change" is set to	Control Assign	
Settings: 001-128					Receive SW
MIDI Volume					Element
	ansmit volume to the ext			formance.	Osc / Tune
	le when the Transmit Vo	lume/Expression is set to "off".			Pitch EG
Settings: 0-127					Filter
MIDI Pan					Туре
	an to be transmitted to th		erator when selecting th	ne Performance.	Filter EG
	le when the Transmit Pa	in is set to "off."			Scale
Settings: L64–C–R63					Amplitude
MIDI Send					Level / Pan
	rameter on, MIDI Bank,			an is transmitted to	Amp EG
the external tone generator depending on the setting of the Transmit Switch. This is not available when the Transmit Channel is set to off or when all of the four Transmit Switches are set					Scale
to off.					Element LFO
Settings: Off, On					Element EQ
					All Element
					Osc

Balance

Copy or Exchange Elements

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Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio

Zone Transmit

From the Zone Transmit display you can set how each individual zone affects transmission of various MIDI data, such as Control Change and Program Change messages. When the relevant parameter is set to "on," playing the selected zone will transmit the corresponding MIDI data.

All settings made in this display are not available when "Transmit Ch" is set to "Off" in the Zone Setting display.

To activate this display, select [UTILITY] \rightarrow [Settings] \rightarrow [Advanced], then set "Zone Master" to "ON." For details, refer to the Owner's Manual.



 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \ \mathsf{selection} \rightarrow \mathsf{Element} \ [\mathsf{Common}] \rightarrow [\mathsf{Part} \ \mathsf{Settings}] \rightarrow [\mathsf{Zone} \ \mathsf{Transmit}]$

A	🛍 Edit	- Part1 - Co	ommon		l	FX		e ∕a	J 140		0
Part	General	Pgm Change	Bank Sel	Bank Select Pit							
Settings		ON	0								
Effect	Pitch										
Arpeggio	Zone Settings	cc	Vol/Exp	Pan	MW	Sust	tain	FC1	FC2	F	s
Motion	Zone	ON	ON	ON	ON		ON	ON	ON		ON
Seq	Transmit	A. SW1	A. SW2	MS Hold	MS Trigge	er					
Mod / Control		ON	ON	ON	ON						
		A. Knob1	A. Knob2	A. Knob	3 A. Knob4	А. К	nob5	A. Knob6	A. Knol	b7 A	. Knob8
		ON	ON	ON	ON		ON	ON	ON		ON
-											
Part 1	Common	Elem1 El	em2 Elem	3 Elen	n4 Elem5	Elem6	Elei	m7 Eler	n8 All		

Pgm Change (Transmit Program Change)

Determines whether Program Change messages are transmitted to the external tone generator or not. **Settings:** Off, On

Bank Select (Transmit Bank Select)

Determines whether Bank Select MSB/LSB messages are transmitted to the external tone generator or not. This is not available when the Transmit Control Change is set to off. **Settings:** Off, On

Pitch Bend (Transmit Pitch Bend)

Determines whether Pitch Bend messages are transmitted to the external tone generator or not. **Settings:** Off, On

CC (Transmit Control Change)

Determines whether Control Change messages are transmitted to the external tone generator or not. **Settings:** Off, On

Vol/Exp (Transmit Volume/Expression)

Determines whether volume messages are transmitted to the external tone generator or not. This is not available when the Transmit Control Change is set to off. **Settings:** Off, On

Pan (Transmit Pan)

Determines whether Pan messages are transmitted to the external tone generator or not. This is not available when the Transmit Control Change is set to off. **Settings:** Off, On

Normal Part (AWM2) Edit

Co	omn	hon
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Eff	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Мо	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	09	sc / Tune
	Pit	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
Al	Ele	ement
	05	50
	Ba	lance

eference	Performance	Edit	Search	Utility	/ Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
•	Modulation Wheel)	enerated by using the Mo	dulation Wheel	are transmitted to the	Normal Part (AWM2) Edi
external tone ger		sherated by using the Mt			Common
		Control Change is set to	off.		Part Settings
Settings: Off, On					General
Sustain (Trans	mit Sustain)				Pitch
•	•	are transmitted to the ex	ternal tone gene	erator or not.	Zone Settings
This is not availab		Control Change is set to			Zone Transmit
Settings: Off, On					Effect
FC1/FC2 (Tran	smit Fool Controlle	r)			Routing
•		nerated by pressing the	optional Foot C	ontroller are transmitted	to Ins A
the external tone	generator or not.				Ins B
	ole when the Transmit	Control Change is set to	off.		EQ
Settings: Off, On					Ins Assign
FS (Transmit F	oot Switch)				Arpeggio
		nerated by pressing the	optional Foot Sv	vitch are transmitted to	the Common
external tone ger		Cantral Change is get to	off		Individual
Settings: Off, On	ole when the transmit	Control Change is set to	011.		Advanced
ocumps. on, on					Motion Seq
	2 (Transmit Assigna	•			Common
		enerated by pressing the	[ASSIGN 1] and	d [ASSIGN 2] buttons a	re Lane
	e external tone generat	Control Change is set to	off.		Mod / Control
Settings: Off, On		gg			Part LFO
	'I M I' O				Control Assign
•	smit Motion Seque	ncer Hold) enerated by pressing the			Receive SW
	e external tone generat			HOLD] bullon are	Element
		Control Change is set to	off.		Osc / Tune
Settings: Off, On					Pitch EG
MS Trigger (Tr	ansmit Motion Sequ	lencer Trigger)			Filter
•• •	•	enerated by pressing the	[MOTION SEQ	TRIGGER] button are	Туре
transmitted to the	e external tone generat	or or not.	-		Filter EG
	ole when the Transmit	Control Change is set to	off.		Scale
Settings: Off, On					Amplitude
A.Knob1–8 (Tra	ansmit Assignable	Knob)			Level / Pan
Determines whet	her MIDI messages ge	enerated by using the As	signable Knobs	1-4 (5-8) are transmitte	ed
	ne generator or not.		-#		Amp EG Scale
	bie when the Transmit	Control Change is set to	ОΠ.		
Settings: Off, On					Element LFO
					Element EQ
					All Element
					Osc
					Balance

Copy or Exchange Elements

-

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X) Co	mmon/Audio

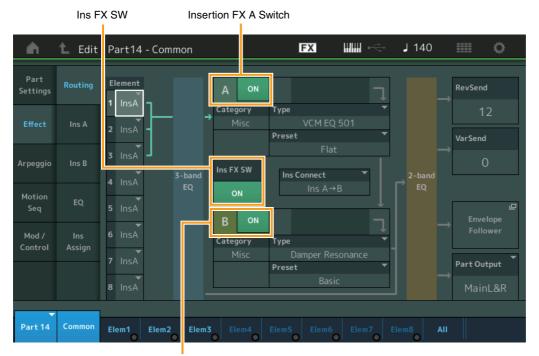
Effect

Routing

From the Routing display you can determine the Effect connections for Parts.

Operation

 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \ \mathsf{selection} \rightarrow \mathsf{Element} \ [\mathsf{Common}] \rightarrow [\mathsf{Effect}] \rightarrow [\mathsf{Routing}]$



Insertion FX B Switch

Element 1-8 (Element Connection Switch)

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. **Settings:** Thru, InsA (Insertion Effect A), InsB (Insertion Effect B)

Insertion FX Switch (Insertion Effect Switch)

Determines whether the Insertion Effect A/B is active or not. For Parts 9-16, the Ins FX SW is shown at the center of the page, and the Insertion effect of the currently being edited Part can be switched ON or OFF.

Settings: Off, On

Category (Effect Category)

Type (Effect Type)

Determines the category and type for the selected Effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations. You can change how the sound is affected by the selected pre-programmed settings.

Settings: For a list of all Preset Effects, see the Data List PDF document.

Normal Part (AWM2) Edit	

	_	
Co	omn	hon
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	lect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мс	otion Seq
		Common
		Lane
	Мс	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	05	sc / Tune
	Pit	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
Al	I Ele	ement
	05	SC .
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Common	n/Audio

Side Chain/Modulator (Side Chain/Modulator Part)

The Side Chain/Modulator uses the output from one track to control an effect in a different track. You can specify the Effect type for activating the feature so that input signals for Parts other than the selected Part or the audio input signal can control the specified Effect. This may not be active depending on the particular Effect Type.

Here you can determine the Part used for the Side Chain/Modulator.

This is not available when you select the same Part or "Master" as the Modulator Part. **Settings:** Part 1–16, A/D, Master, Off

Ins Connect (Insertion Connection Type)

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. For details, see the section "Effect connection" (page 20) of the "Basic Structure."

Settings: Parallel, Ins A→B, Ins B→A

Rev Send (Reverb Send)

Determines the Send level of the signal sent from Insertion Effect A/B (or the bypassed signal) to the Reverb effect. This is available only when "Part Output" is set to "MainL&R." **Settings:** 0–127

Var Send (Variation Send)

Determines the Send level of the signal sent from Insertion Effect A/B (or the bypassed signal) to the Variation effect. This is available only when "Part Output" is set to "MainL&R." **Settings:** 0–127

Part Output (Part Output Select)

Determines the specific audio output.

Settings: MainL&R, USB1&2...USB7&8, USB1...USB8, Off
MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks.
USB1&2...USB7&8: Outputs in stereo (Channels 1&2...7&8) to the [USB TO HOST] terminal.
USB1...USB8: Outputs in mono (Channels 1...8) to the [USB TO HOST] terminal.
Off: No audio signal for the Part is output.

Envelope Follower

Calls up the Envelope Follower setting display. For details on the Envelope Follower, see the "Envelope Follower Block" (page 21) in the "Basic Structure."



Part (Input Source)

Displays the Part as "Input Source" for the selected Envelope Follower. **Settings:** Master, AD, Part 1–Part 16

Normal Part (AWM2) Edit

NOI	ma	Part (AWW2) Eult
Co	omn	hon
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	М	otion Seq
		Common
		Lane
	М	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	09	sc / Tune
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	El	ement LFO
	El	ement EQ
AI	l Ele	ement
	0	SC
	Ba	alance

Reference Performance		Edit	Search	Utili	ty	Live Set	
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Auc	dio	
•	ope Follower Gain) ne Input gain of the Input Sc 3 - 0dB - +24dB	ource set in "Part."	_	_	Comm		
Attack (Enve	elope Follower Attack) he attack time of the Envelop					art Settings General Pitch Zone Settings	
Determines th	velope Follower Release the release time of the Envelo				Ef	Zone Transmit	
	Input Level of the signal fro	om the Input Source se	t in "Part."			Routing Ins A Ins B EQ	
Indicates the (DIIOWER Output Output Level of the Envelop	pe Follower.			A	Ins Assign rpeggio	
Edit Calls up the C	Control Assign display for th	ne Destination Part.				Common Individual Advanced	
•	ertion Effect A) ertion Effect B)				Mc	otion Seq Common Lane	
	rtion Effect A/Insertion Effect					od / Control Part LFO	
Operation	[Ins B] Insertion FX Switch	/[01, 7 [=		Control Assign Receive SW	
n -	🛍 Edit - Part1 - Common	FX	ⅢⅢ •<=• J 1	140 🏢 🔅	Eleme	ent sc / Tune	
Part Settings		туре VCM Compressor 376	▼ Preset	▼ Side Chain ▼		itch EG Iter	
Effect	Input Level Ratio	Attack Re	Aelease Output L 497.30ms -20.2			Type Filter EG Scale	
Arpeggio	Ins B				Ar	mplitude Level / Pan	
Motion Seq	EQ					Amp EG Scale	
Mod / Control	Ins Assign				l	lement LFO lement EQ	
					All Ele	ement sc	
Part 1	Common Elem1 Elem2 Elem	m3 Elem4 Elem5 Elem	m6 Elem7 Elem8	AII	Ba	alance	

Effect Parameter

Insertion FX Switch (Insertion Effect Switch)

Determines whether the selected Insertion Effect is active or not. **Settings:** Off, On

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio

Category (Effect Category)

Type (Effect Type)

Determines the category and type for the selected Insertion Effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations. You can change how the sound is affected by the selected pre-programmed settings.

Settings: For a list of all Preset Effect types, see the Data List PDF document.

Side Chain/Modulator (Side Chain/Modulator Part)

The Side Chain/Modulator uses the output from one track to control an effect in a different track. You can specify the Effect type for activating the feature so that input signals for Parts other than the selected Part or the audio input signal can control the specified Effect. This may not be active depending on the particular Effect Type.

Here you can determine the Part used for the Side Chain/Modulator.

This is not available when you select the same Part or "Master" as the Modulator Part. **Settings:** Part 1–16, A/D, Master, Off

Effect Parameter

Active Effect parameters differ depending on the selected Effect Types. For details on the editable Effect parameters, see the Data List PDF document. Also, for details on the description for each Effect parameter, see the Synthesizer Parameter Manual PDF document.

EQ (Part Equalizer)

From the Part Equalizer display you can set parameters related to Part EQ.



Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element [Common] \rightarrow [Effect] \rightarrow [EQ]

A	1_ Edit	- Part1	- Con	nmon				F	Х	ł		J 14	40		Ö
Part Settings	Routing	3-band EQ 2-band	+24 +12 0												
Effect	Ins A	EQ	-12 -24	20	50	100	20		500	11		5k	10k	20k	
Arpeggio	Ins B				EQ L	ow Gain		EQ Mid	Gain		EQ Hi Gain				
Motion	50				+	0.75dl	В	+5.	63dE	3	+7.50	dΒ			
Seq	EQ				EQ L	ow Freq		EQ Mid	Freq		EQ Hi Freq				
Mod / Control	Ins Assign				60	06.6H	z	1.6	7kHz	z	10.1kł	Ιz			
								EQ Mid	Q						
								_					1		
Part 1	Common	Elem1	Elen	m2 Ele	m3	Elem4		em5	Elemé	5	Elem7	lem8	All		

Normal Part (AWM2) Edit

		Part (AWW2) Edit					
Cc	omn	non					
	Pa	rt Settings					
		General					
		Pitch					
		Zone Settings					
		Zone Transmit					
	Ef	fect					
		Routing					
		Ins A					
		Ins B					
		EQ					
		Ins Assign					
	Ar	peggio					
		Common					
		Individual					
		Advanced					
	Mo	otion Seq					
		Common					
		Lane					
	Mo	od / Control					
		Part LFO					
		Control Assign					
		Receive SW					
Ele	eme	ent					
	09	sc / Tune					
	Pi	tch EG					
	Fil	ter					
		Туре					
		Filter EG					
		Scale					
	Ar	nplitude					
		Level / Pan					
		Amp EG					
		Scale					
	El	ement LFO					
	El	ement EQ					
All	Ele	ement					
	09	SC					
	Ba	lance					

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Common	/Audio

3-band EQ / 2-band EQ (3-band EQ/2-band EQ Switch)

Switches displays between 3-band EQ and 2-band EQ. **Settings:** 3-band EQ, 2-band EQ

When "3-band EQ" is selected

From this display you can make 3-band EQ settings.

•	🛍 Edit	- Part1 -	- Com	mon			FX			J 1	40		ø
Part Settings	Routing	3-band EQ 2-band	+12 -										
Effect	Ins A		0	20	50 100	200				5k	10k	20k	
Arpeggio	Ins B				EQ Low Gain		EQ Mid Ga	ain	EQ Hi Gai	n			
Motion	EQ				+0.75dl	В	+5.63	3dB	+7.50	DdB			
Seq	ĽŶ				EQ Low Freq		EQ Mid Fr	eq	EQ Hi Fre	9			
Mod / Control	Ins Assign				606.6Hz	z	1.67	<hz< td=""><td>10.11</td><td>κHz</td><td></td><td></td><td></td></hz<>	10.11	κHz			
							EQ Mid Q						
							0.7						
-													
Part 1	Common	Elem1	Elem	2 Elem	3 Elem4		m5 El	lem6	Elem7	Elem8	AII		

EQ Low Gain (3-band EQ Low Gain)

Determines the level gain of the Low band. **Settings:** -12dB - +12dB

EQ Mid Gain (3-band EQ Middle Gain)

Determines the level gain of the Mid band. **Settings:** -12dB - +12dB

EQ Hi Gain (3-band EQ High Gain)

Determines the level gain of the High band. **Settings:** -12dB - +12dB

EQ Low Freq (3-band EQ Low Frequency)

Determines the frequency for the Low band. **Settings:** 50.1Hz–2.00kHz

EQ Mid Freq (3-band EQ Middle Frequency)

Determines the frequency for the Mid band. **Settings:** 139.7Hz–10.1kHz

EQ Hi Freq (3-band EQ High Frequency)

Determines the frequency for the High band. **Settings:** 503.8Hz-14.0kHz

EQ Mid Q (3-band EQ Middle Q)

Determines the EQ bandwidth of the Mid band. **Settings:** 0.7–10.3

Normal Part (AWM2) Edit

Nor	mal	Part (AWM2) Edit					
Co	mm	non					
_	Pa	rt Settings					
		General					
		Pitch					
		Zone Settings					
		Zone Transmit					
	Ef	fect					
		Routing					
		Ins A					
		Ins B					
		EQ					
		Ins Assign					
	Ar	peggio					
		Common					
		Individual					
		Advanced					
	Мо	Motion Seq					
		Common					
		Lane					
	Мо	od / Control					
		Part LFO					
		Control Assign					
_		Receive SW					
Ele	eme						
		sc / Tune					
		tch EG					
	Fil	ter					
		Туре					
		Filter EG					
	1	Scale					
	An	nplitude					
		Level / Pan					
		Amp EG Scale					
	51/	ement LFO					
		ement EQ					
		ement					
	Os						
		lance					

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

When "2-band EQ" is selected

From this display you can make 2-band EQ settings.

•	🛍 Edit	- Part1 -	- Comi	mon			FX	l		J 1	140		ø
Part Settings	Routing	2-band	+12 -										
Effect	Ins A		0 -12 -24	20 !	50 100	20	0 500	1k	< 2k	51	k 10	k 20k	
Arpeggio	Ins B		EQ 1 T ₃	/pe 🔻	EQ 1 Gain		EQ 2 Type	•	EQ 2 Gain				
Motion	EQ		Hi S	Shelf	+0.0dB		Peak/Dip)	+0.0dE	}			
Seq	ĽQ				EQ 1 Freq				EQ 2 Freq				
Mod / Control	Ins Assign				63.0Hz				63.0Hz	2			
									EQ 2 Q		Output	Level	
									0.1		+0.	OdB	
-													
Part 1	Common	Elem1	Elem	2 Elem	3 Elem4	E	lem5 Elem6		Elem7 El	em8	AII		

EQ1 Type (2-band EQ1 Type)/EQ2 Type (2-band EQ2 Type)

Determines the Equalizer Type.

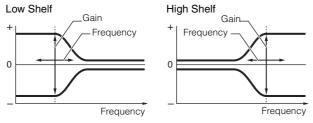
Settings: Thru, LPF, HPF, Low Shelf, Hi Shelf, Peak/Dip

Thru: This setting bypasses the equalizers leaving the entire signal unaffected.

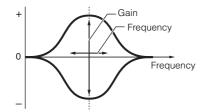
LPF/HPF: This setting only passes signals below or above the Cutoff Frequency.

Low Shelf/Hi Shelf: This setting attenuates/boosts the signal at frequencies above or below the specified Frequency setting





Peak/Dip: This setting attenuates/boosts the signal at the specified Frequency setting.



EQ 1 Gain (2-band EQ1 Gain)/EQ 2 Gain (2-band EQ2 Gain)

Determines the level gain of the frequency set in "EQ1 Freq" or "EQ2 Freq." This is not active when "EQ Type" is set to "Thru," "LPF," or "HPF." Settings: -12dB - +12dB

EQ 1 Freq (2-band EQ1 Frequency)/EQ 2 Freq (2-band EQ2 Frequency)

Determines the frequency to be attenuated/boosted. This is not active when "EQ Type" is set to "Thru." Settings: 63Hz-18.0Hz

Normal Part (AWM2) Edit

Nor	mal	Part (AWM2) Edit
Co	omn	hon
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Мо	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	Os	sc / Tune
	Pit	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
AI	I Ele	ement
_	05	SC
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	al Part (FM-X) Commo	on/Audio

EQ 1 Q (2-band EQ1 Q)/EQ 2 Q (2-band EQ2 Q)

Determines the EQ bandwidth for the frequency which is set in "EQ 1 Freq/EQ2 Freq." This is available only when "EQ Type" is set to "Peak/Dip."

Settings: 0.1-12.0

NOTE For details on EQ structure, see the Synthesizer Parameter Manual PDF document.

Output Level (2-band Output Level)

Determines the Output level of the 2-band EQ. **Settings:** -12dB - +12dB

Ins Assign (Insertion Assign)

In the Insertion Assign display, you can set the Insertion Effect for Parts 9–16.



[PERFORMANCE (HOME)] → [EDIT] → Part selection → Element [Common] → [Effect] → [Ins Assign]

•	🕇 Edit	- Part1 - Comr	non	F		- J 90	¢
Part Settings	Routing	Active					
Effect	Ins A	Part 9	Part 10	Part 11	Part 12		
		ON	OFF	OFF	OFF		
Arpeggio	Ins B	Part 13	Part 14	Part 15	Part 16		
Motion		OFF	OFF	OFF	OFF		
Seq	EQ						
Mod / Control	Ins Assign						
Control	Assign						
Part 1	Common	Elem1 Elem2	Elem3 Ele	m4 Elem5 I	Elem6 Elem7	Elem8 All	

Active (Active Part)

Shows the number of Parts with the Ins FX SW set to ON. The number that follows the slash (/) sign is the maximum number of Insertion Effects that can be simultaneously set to ON.

Part9–Part16

Sets the Insertion Effect for Parts 9-16 ON or OFF. Settings: Off, On

 $\label{eq:NOTE} \textbf{NOTE} \quad \text{The Insertion Effect for Parts 1-8 is always ON}.$

Normal Part (AWM2) Edit

INUI	mai	Fait (AVVIVIZ) Eult
Co	omn	non
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	iect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	Os	sc / Tune
	Pit	ich EG
	Fil	ter
		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
AI	l Ele	ement
	05	SC
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Commo	on/Audio

Arpeggio

Common

From the Common display you can set Arpeggio-related parameters for the Part.



[PERFORMANCE (HOME)] → [EDIT] → Part selection → Element [Common] → [Arpeggio] → [Common]

A	🕇 Edit	- Part1 - Comn	างท	FΣ	< ₩₩ ~	J 140	o	
Part Common Part Sync Quantize 3 Settings								
Effect	Individual	Hold			Key Mode	Velocity	Gate Time	
Effect	Individual	Sync-Off	Off	On	Sort	100%	100%	
Arpeggio	Advanced	Change Timing		Loop	Arp Play Only	Arp/MS Grid	Qntz Strength	
Motion		Real-time	Measure	ON	OFF	1 20	0%	
Seq						Unit	Swing	
Mod / Control						50%	+0	
		Velocity Limit		Note Limit		Octave Shift	Octave Range	
		1	127	C -2	G 8	+0	+0	
-								
Part 1	Common	Elem1 Elem2	Elem3 Ele	m4 Elem5	Elem6 Elem7	Elem8 All		

Arp Part (Part Arpeggio Switch)

Determines whether the Arpeggio for the selected Part is active or not. **Settings:** Off, On

Arp Master (Arpeggio Master Switch)

Determines whether the Arpeggio for the entire Performance is active or not. **Settings:** Off, On

Sync Quantize (Sync Quantize Value)

Determines the actual timing at which the next Arpeggio playback starts when you trigger it while the Arpeggios for Parts are being played back. When set to "off," the next Arpeggio starts as soon as you trigger it. 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)

Hold

Determines whether the Arpeggio continues cycling after the keys are released. **Settings:** Sync-off, Off, On

Sync-off: Arpeggio playback continues to run silently, even when you release the keys. Pressing any key turns Arpeggio playback on again, and the Arpeggio is heard from the point in the cycle where playback is resumed. **Off:** The Arpeggio plays only while you hold the keys.

On: The Arpeggio cycles automatically, even if you release your fingers from the keys.

	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Ef	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Mo	otion Seq				
		Common				
		Lane				
	Mo	od / Control				
		Part LFO				
		Control Assign				
		Receive SW				
Ele	eme					
	05	sc / Tune				
	Pi	tch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	Ar	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
		ement LFO				
		ement EQ				
Al	Ele	ement				
	05					
	Ba	llance				

Normal Part (AWM2) Edit

Common

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	l Part (FM-X) Commo	n/Audio

Key Mode

Determines how the Arpeggio plays back when playing the keyboard.

Settings: Sort, Thru, Direct, Sort+Drct, Thru+Drct

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, events such as Pan and Brightness are applied to the sound of your keyboard performance. Use this setting when the Arpeggio types include non-note data or when you set the Arpeggio Category to Control.

Sort+Drct: The Arpeggio plays back according to the Sort setting, and the notes played are also sounded. **Thru+Drct:** The Arpeggio plays back according to the Thru setting, and the notes played are also sounded.

Velocity (Velocity Rate)

Determines how much the velocity of Arpeggio playback is offset from the original value. If the resulting Velocity value is 0, it will be set to 1. If the resulting Velocity value is greater than 128 it will be set to 127. **Settings:** 0%–200%

Gate Time (Gate Time Rate)

Determines how much the Gate Time (length) of the Arpeggio notes is offset from the original value. If the resulting Gate Time value is 0, it will be set to 1. **Settings:** 0%–200%

Change Timing

Determines the actual timing at which the Arpeggio type is switched when you select another type during Arpeggio playback. When set to "Real-time," the Arpeggio type is switched immediately. When set to "Measure," the Arpeggio type is switched at the top of the next measure.

Settings: Real-time, Measure

Loop

Determines whether the Arpeggio plays through a single time or continuously, while notes are held. **Settings:** Off, On

Arp Play Only (Arpeggio Play Only)

Determines whether or not the current Part plays only the note events of the Arpeggio playback. When this parameter is set to on, only the note events of the Arpeggio playback affect the tone generator block. **Settings:** Off, On

Arp/MS Grid (Arpeggio/Motion Sequencer Grid)

Determines the type of note that serves as the basis for the Quantize or Swing. The parameter value is displayed in clocks.

For Motion Sequencer, this parameter value is one step length.

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)

Qntz Strength (Quantize Strength)

This parameter sets the "strength" by which note events are pulled toward the quantize beat set in "Arp/MS Grid." A setting of 100% produces exact timing set in "Arp/MS Grid." A setting of 0% results in no quantization.

Settings: 0%-100%

Unit (Part Unit Multiply)

Adjusts the Arpeggio playback time. By using this parameter, you can create a different Arpeggio from the original one.

Settings: 50%, 66%, 75%, 100%, 133%, 150%, 200%, 266%, 300%, 400%, Common

200%: The playback time will be doubled and the tempo is halved.

100%: The normal playback time.

50%: The playback time will be halved and the tempo doubled.

Common: The value set in the Unit Multiply common to the all Parts will be applied.

Normal Part (AWM2) Edit

or	mai	Part (AVVIVI2) Edit
Co	mn	non
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
-		Lane
-	Мо	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	
-	05	sc / Tune
-	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
All	Ele	ement
	09	SC .
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commor	n/Audio

Swing

Delays notes on even-numbered beats (backbeats) to produce a swing feel.

• +1 and higher: Delay the Arpeggio notes.

- -1 and lower: Advance the Arpeggio notes.
- 0: Exact timing as set by "Arpeggio/Motion Sequencer Grid" Value, resulting in no swing.

Judicious use of this setting lets you create swing rhythms and triplet feels, such as shuffle and bounce. **Settings:** -120 - +120

Velocity Limit (Arpeggio Velocity Limit)

Determines the minimum and maximum Velocity values in which the Arpeggio responds. Each Arpeggio will only sound for notes played within its specified velocity range. If you first specify the maximum value and then the minimum value, for example "93 to 34," then the Velocity range covers both "1 to 34" and "93 to 127."

Settings: 1-127

Note Limit (Arpeggio Note Limit)

Determines the lowest and highest notes in the Arpeggio's note range. Each Arpeggio will only sound for notes played within its specified range. If you first specify the highest note and then the lowest note, for example "C5 to C4," then the note range covers both "C-2 to C4" and "C5 to G8." **Settings:** C -2 - G8

Octave Shift (Arpeggio Output Octave Shift)

Shifts the pitch of the Arpeggio up or down in octaves. **Settings:** -10 - +0 - +10

Octave Range (Arpeggio Octave Range)

Specifies the maximum Arpeggio range in octaves. **Settings:** -3 - +0 - +3

Normal	Part (AWM2) Edit
Comm	non
Pa	rt Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
Eff	fect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
Ar	peggio
	Common
	Individual
	Advanced
Mo	otion Seq
	Common
	Lane
Mo	od / Control
	Part LFO
	Control Assign
	Receive SW
Eleme	ent
08	sc / Tune
Pit	tch EG
Fil	ter
	Туре
	Filter EG
	Scale
An	nplitude
	Level / Pan
	Amp EG
	Scale
Ele	ement LFO
	ement EQ
All Ele	ement
Os	SC
Ba	lance
Comu	or Evchange

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Common	n/Audio

Individual

From the Individual display you can set parameters corresponding to Arpeggio Selects 1–8. Touching the Arpeggio Type Setting calls up a menu. In the displayed menu, touch [Search] to call up the Arpeggio Category Search display (page 180) and touch [Number] to determine the Arpeggio Type by specifying the Arpeggio Number.



 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element [Common] \rightarrow [Arpeggio] \rightarrow [Individual]$

Part Settings	Common	Arp Part	Arp Master	nc Quantize 80	Ĩ		
		Arp	Category	Sub	Name DI	Velocity	Gate Time
Effect	Individual	1	SynCp	D&B	MA_Breakbeats 2 _N	+0%	+0%
		2	SynCp	D&B	MA_Breakbeats 2 _N	+0%	+0%
Arpeggio	Advanced	3	SynCp	D&B	MA_Breakbeats 2 _N	+0%	+0%
Motion		4	Ct/Hb	General	Mute 4/4	+0%	+0%
Seq		5	Ct/Hb	General	Mute 4/4	+0%	+0%
Mod / Control		6	M.FX	D&B	MA_ComplxtroSQ12 _N	+0%	+0%
		7	SynLd	House	MA_SynthRiff2-07	+0%	+0%
		8	SynLd	Techno	MA_Simple Lead 01	+0%	+0%

Arp Part (Part Arpeggio Switch) Arp Master (Arpeggio Master Switch) Sync Quantize (Sync Quantize Value)

Same as in the Common display.

Arp (Arpeggio Select)

Selects the desired Arpeggio stored as Arpeggio Select. By selecting a type and pressing [SHIFT] + [EDIT], you can copy or exchange Arpeggios. For details, see "Copying or Exchanging Arpeggios" (page 86). Settings: 1–8

Category (Arpeggio Category)

Indicates the selected Arpeggio Category. Settings: See the "Arpeggio Category List" on page 11.

Sub (Arpeggio Sub Category)

Indicates the selected Arpeggio Sub Category. Settings: See the "Arpeggio Sub Category List" on page 11.

Name (Arpeggio Name)

Indicates the selected Arpeggio Name. **Settings:** See the Data List PDF document.

Velocity (Velocity Rate)

Determines how much the velocity of Arpeggio playback is offset from the original value. If the resulting Velocity value is 0, it will be set to 1. If the resulting Velocity value is greater than 128 it will be set to 127. **Settings:** -100% - +100%

Normal Part (AWM2) Edit

Arpeggio Type Settings

INO	mai	Part (AWM2) Edit				
Co	omm					
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Eff	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Мс	otion Seq				
		Common				
		Lane				
	Мс	od / Control				
	Part LFO					
		Control Assign				
		Receive SW				
Ele	eme	nt				
	Os	sc / Tune				
	Pit	tch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	An	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	Ele	ement LFO				
	Ele	ement EQ				
AI	l Ele	ement				
_	Os	SC .				
	Ba	lance				

eference	Performance	Edit	Search	u Utilit	ty Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Determines ho	(Gate Time Rate) now much the Gate Time (le e Time value is 0, it will be s % - +100%		notes is offset fror	m the original value. If	f the Common Part Settings General
	J or Exchanging Arpe J or exchange between Arp				Pitch Zone Settings Zone Transm
Operation	[PERFORMANCE (HOME)] [SHIFT] + [EDIT] or [PERFORMANCE (HOME)] [EDIT]				T]+ Ins A Ins B
		Copy Exchange	Э		EQ Ins Assign
0	Part	Copy Exchange	rt		Arpeggio Common Individual Advanced Motion Seq Common
9	Arp Selo	lect •••••••> Arp: 2 •••••••>	2		Lane Mod / Control Part LFO Control Assig Receive SW Element
	Cance	el	Сору		Osc / Tune Pitch EG Filter Type
	n select "All" for Arp Select wh	hen copying between diffe	erent Parts.		Filter EG Scale
Copy Touching this	button activates the Arpec	ggio Type Copy functior	n.		Amplitude Level / Pan
Exchange Touching this	button activates the Arpec	ggio Type Exchange fur	nction.		Amp EG Scale
	be copied (or exchange e currently selected Part is set	•	tting cannot be cha	inged.	Element LFO Element EQ All Element
	o Select to be copied (or rexchange) destination				Osc Balance
_	r exchange) destination				
					O and an Each and

Copy or Exchange Elements

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	on/Audio

Advanced

From the Advanced display you can set advanced parameters related to the Arpeggio function.



[PERFORMANCE (HOME)] → [EDIT] → Part selection → Element [Common] → [Arpeggio] → [Advanced]



Arp Part (Part Arpeggio Switch) Arp Master (Arpeggio Master Switch) Sync Quantize (Sync Quantize Value)

Same as in the Common display.

Accent Vel Threshold (Accent Velocity Threshold)

Determines the minimum velocity that will trigger the 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 difficult to play at velocities necessary to trigger the Accent Phrase, set the "Accent Vel Threshold" (Accent Velocity Threshold) parameter to a lower value.

NOTE For information on Arpeggio types that use this function, refer to the Data List PDF document. Settings: off, 1-127

Accent Start Quantize

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

Settings: off, on

Random SFX

Determines whether Random SFX is active or not.

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

NOTE For information on Arpeggio types that use this function, refer to the "Arpeggio Type List" in the Data List PDF document

Settings: off, on

Random SFX Velocity Offset

Determines the offset value by which the Random SFX notes will be shifted from their original velocities. Settings: -64 - +0 - +63

Nor	mal	Part (AWM2) Edit				
Co	omm	ion				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Eff	ect				
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Мс	otion Seq				
		Common				
		Lane				
	Mod / Control					
		Part LFO				
		Control Assign				
		Receive SW				
Ele	eme	nt				
	Os	sc / Tune				
	Pit	ch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	An	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	Ele	ement LFO				
		ement EQ				
All	Ele	ement				
	Os	C				
	Ba	lance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Random SFX Key On Ctrl (Random SFX Key On Control)

When this is set to "on," the Random SFX sound is played at the velocity generated by the playing of each note. When this is set to "off," a special Random SFX sound is played at a pre-programmed velocity. **Settings:** off, on

Velocity Mode

Adjusts the velocity of the Arpeggio notes.

Settings: Original, Thru

Original: The Arpeggio plays back at the Velocity set for the Arpeggio Type. **Thru:** The Arpeggio plays back according to the Velocity of your playing.

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.

Settings: Gate, Toggle

Motion Seq (Motion Sequencer)

Common

From the Common display you can set the parameters related to Motion Sequencer for the Part.



 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \; \mathsf{selection} \rightarrow \mathsf{Element} \; [\mathsf{Common}] \rightarrow [\mathsf{Motion} \; \mathsf{Seq}] \rightarrow [\mathsf{Common}]$

A	🛍 Edit	- Part1 - C	ommon		Đ	× !!!!!!	iri I	140	≡ ¢
Part Settings	Common	Common							
secongs		C	ock	A	rp		Moti	on Seq	
		Swing	Unit	Gate Time	Velocity	Amplitude	Shape	Smooth	Random
Effect	Lane	+0	100%	+0	+0	+0	+0	+0	+0
Arpeggio									
7.1 pc gg10		Part							
		C	ock	A	rp		Moti	on Seq	
Motion Seq		Swing	Unit	Gate Time	Velocity	Amplitude	Shape	Smooth	Random
Mod / Control		+0	50%	100%	100%	+0	+0	+0	\bigcirc
								Aı	p/MS Grid
									120
Part 1	Common	Elem1 E	lem2 Elem	3 Elem4		Elem6 Ele	em7 Elem8	AII	

Common Clock Swing (Common Swing)

Determines the Swing of the Arpeggio/Motion Sequencer for the entire Performance. This is the offset value for the Swing of the Arpeggio/Motion Sequencer for each Part. **Settings:** -120 - +120

Common Clock Unit (Common Unit Multiply)

Adjusts the Arpeggio/Motion Sequencer playback time for the entire Performance.

This parameter is applied to the Part when the Unit Multiply parameter for Arpeggio/Motion Sequencer of the Part is set to "Common."

By using this parameter, you can create a different Arpeggio/Motion Sequencer type from the original one. **Settings:** 50%–400%

200%: The playback time will be doubled and the tempo is halved.

100%: The normal playback time.

50%: The playback time will be halved and the tempo doubled.

Normal Part (AWM2) Edit

Co	mn	non					
	Pa	rt Settings					
		General					
		Pitch					
		Zone Settings					
		Zone Transmit					
	Effect						
		Routing					
		Ins A					
		Ins B					
		EQ					
		Ins Assign					
	Ar	peggio					
		Common					
		Individual					
		Advanced					
	Мс	otion Seq					
		Common					
		Lane					
	Мо	od / Control					
		Part LFO					
		Control Assign					
		Receive SW					
Ele	eme	ent					
	05	sc / Tune					
	Pit	ich EG					
	Fil	ter					
		Туре					
		Filter EG					
		Scale					
	An	nplitude					
		Level / Pan					
		Amp EG					
		Scale					
	Ele	ement LFO					
	Ele	ement EQ					
All	Ele	ement					
	05	SC					
	Ba	lance					

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
O-mmon Arn (Coto Timo (Commo	- Arrogaio Gate Tim			Normal Part (AWM2) Ed
-	•	n Arpeggio Gate Time) of the Arpeggio for the e		ce. This is the offset value	
for the Gate Time	e Rate of the Arpeggio fo				Part Settings
Settings: -100% - +	+100%				General
Common Arp \	Velocity (Common /	Arpeggio Velocity Rat	ite)		Pitch
Determines the Ve	lelocity Rate of the Arpe	eggio for the entire Perfo		he offset value for the	Zone Settings
Velocity Rate of th	he Arpeggio for each Pa				Zone Settings Zone Transmit
Settings: -100% - +	+100%				
Common Moti	on Sea Amplitude ((Common Motion Seq	uencer Amplit	tude)	Effect
Determines the A	Amplitude of the Motion	Sequencer for the entire		•	Routing
how the entire Mo	otion Sequence change	es.			Ins A
		on Seq Amplitude, which		value for the Lane t the Amplitude setting in	Ins B
	hen "MS FX" is set to on		Ampilluues onser	I The Amplitude Setting in	
Settings: -64 – +63					Ins Assign
-		Mation Coquor	Dulca Sha	- X	Arpeggio
		nmon Motion Sequen ion Sequencer for the ent	-	• •	Common
curve shape of the		DN Sequencer for the em	lle Penormance.	. This changes the step	Individual
This is the offset w	value for the Part Motion	on Seq Pulse Shape, whic			Advanced
Pulse Shape. This	is results in that both of t	f the Common and Part N	NS Pulse Shapes	offset the Pulse Shape	Motion Seq
setting for the par for the parameter		ly when "MS FX is set it	on for the Larie ;	and "Control" is set to on	Common
Settings: -100 – +10	,				Lane
-					Mod / Control
		ommon Motion Seque		-	Part LFO
		on Sequencer for the ent Sequence is smoothly ch		"Smoothness" is the	Control Assign
This is the offset w	value for the Part Motior	on Seq Smoothness, whic	ch is also the offse		Receive SW
Smoothness. This	s results in that both of t	the Common and Part M	IS Smoothnesses	s offset the Smoothness	Element
		nly when "MS FX" is set to	o on for the Lane	»).	Osc / Tune
Settings: -64 – +63	7				Pitch EG
	• •	ommon Motion Seque			Filter
		Sequencer for the entire F	Performance. "Ra	andom" is the degree to	Туре
	alue of the Sequence is	s randomly changed. on Seg Random when "M	AC EV" is set to or	for the Lang	Filter EG
Settings: -64 – +63		П Бец напионт when ты	STA IS SELLO UN	1 TOT LITE LATE.	Scale
-					Amplitude
	ing (Clock Swing)	a set for the			Level / Pan
		Motion Sequencer for the eats) to produce a swing		his parameter delays	Amp EG
	Delay the Arpeggio not	, , ,			Scale
-	Advance the Arpeggio no				Element LFO
		Notion Sequencer Grid" V	Jalue, resulting in	no swing.	Element EQ
-		eate swing rhythms and t	_	-	All Element
Settings: -120 - +12		ale swing myanno and a		as shume and bounds.	Osc
-					Balance
	it (Part Unit Multiply)		· · · · · · · · · · · · · · · · · · ·		
=		encer playback time for the	he selected Part.		
Settings: 50%-400%		whiled and the temps is helve			

200%: The playback time will be doubled and the tempo is halved.

100%: The normal playback time.

 ${\bf 50\%}:$ The playback time will be halved and the tempo doubled.

Common: The value set in the Unit Multiply common to the all Parts will be applied.

Reference	Performance	Edit	Search	Utility	y Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Determines how	Time (Part Arpeggio much the Gate Time (ler or the Gate Time Rate (p 6	igth) of the Arpeggio no			Normal Part (AWM2) Edit ^{s is} Common Part Settings
Determines how	ity (Part Arpeggio Ve much the velocity of Arp ocity Rate (page 85) of e	eggio playback is offse		al value. This is the off	Zone Settings Zone Transmit
Determines the A	eq Amplitude (Part M Amplitude of the Motion S value for the Lane Motio	Sequencer for the selec	cted Part.	-X" is set to on for the	Effect Routing Ins A Ins B EQ
Determines the F This is the offset	eq Shape (Part Motio Pulse Shape of the Motio value for the Lane Motio and "Control" is set to on 100	n Sequencer for the se n Seq "Step Curve Par	lected Part.	4) when "MS FX" is set	Ins Assign Arpeggio to Common Individual Advanced
Determines the S	eq Smooth (Part Motion Smoothness of the Motion value for the Lane Motion	n Sequencer for the se	lected Part.	S FX" is set to on for th	e Motion Seq Common Lane Mod / Control
Determines the F	eq Random (Part Mot Random of the Motion Se the Sequence is randor	quencer for the selecte	•	n" is the degree to whi	ch Part LFO Control Assign Receive SW Element
Determines the t displayed in cloc For Motion Seque	Arpeggio/Motion Seq ype of note that serves a ks. encer, this parameter va note), 80 (16th note triplet),	is the basis for the Qua			Osc / Tune Pitch EG Filter Type Filter EG
480 (1/4					Scale Amplitude Level / Pan Amp EG Scale
					Element LFO Element EQ

All Element Osc

Balance

-

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Lane

From the Lane display you can set parameters for each Lane of the Motion Sequencer.



[PERFORMANCE (HOME)] → [EDIT] → Part selection → Element [Common] → [Motion Seq] → [Lane]

A	🛍 Edit	- Part1 - Comn	non			FX			€ S	J 1	40			¢
Part	Common	Motion Seq	Lane	LaneSW	MS FX	Trigger	Seque	nce Sel	ect					
Settings	Common	Master SW	1	ON	ON	OFF	1	2	3	4	5	6	7	8
Effect	Lane		2	ON	ON	OFF	1	2		4	5	6	7	8
Arpeggio		Motion Seq Part SW ON	3	OFF										
Motion			4	OFF										
Seq		Sync	Unit Mul	tiply 🔻	Key On R	leset 🔻	Loop		Ve	elocity	Limit			
Mod / Control		Tempo	10	0%	Ot	ff		DN					127	7
		교 Load Sequence	Edit Se	교 quence	Cycle	6	1 2	3 4	56	7 8	9 10	11 12	13 14	15 16
Part 1	Common	Elem1 Elem2	Elem	3 Eler	n4 El	em5 E	lem6	Elem	7	Elem8	A	II		

Motion Seq Master SW (Motion Sequencer Master Switch)

Determines whether the Motion Sequencer for the entire Performance is active or not. Settings: Off, On

Motion Seq Part SW (Motion Sequencer Part Switch)

Determines whether the Motion Sequencer for the selected Part is active or not. Settings: Off, On

Lane SW (Lane Switch)

Determines whether each Lane is active or not. Up to four Lanes of Motion Sequencer can be used for one Part and up to eight Lanes can be used at the same time for the entire Performance. When this is set to off, parameters related to the corresponding Lane will not be displayed. Settings: Off, On

MS FX (Lane Motion Sequencer FX Receive)

Determines whether or not the selected Lane is affected by Knob operations when the "ARP/MS" is selected with the Knob Function [TONE]/[EG/FX]/[EQ]/[ARP/MS] button. Settings: Off, On

Trigger (Lane Motion Sequencer Trigger Receive)

Determines whether or not the selected Lane receives the signal generated by [MOTION SEQ TRIGGER] button. When this is set to on, the Motion Sequence will begin whenever you press the [MOTION SEQ TRIGGER] button.

Settings: Off, On

Sequence Select (Lane Motion Sequence Select)

Selects the desired Motion Sequence. By selecting a type and pressing [SHIFT] + [EDIT], you can copy or exchange Motion Sequences. For details, see "Copying or Exchanging Motion Sequences" (page 95). Settings: 1-8

Normal Part (AWM2) Edit				
Common				
Part Settings				
General				
Pitch				
Zone Settings				
Zone Transmit				
Effect				
Routing				
Ins A				
Ins B				
EQ				
Ins Assign				
Arpeggio				
Common				
Individual				
Advanced				
Motion Seq				
Common				
Lane				
Mod / Control				
Part LFO				
Control Assign				
Receive SW				
Element				
Osc / Tune				
Pitch EG				
Filter				
Туре				
Filter EG				
Scale				
Amplitude				
Level / Pan				
Amp EG				
Scale				
Element LFO				
Element EQ				
All Element				
Osc				
Balance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	al Part (FM-X) Commo	n/Audio

Sync (Lane Motion Sequencer Sync)

Determines if the playback of the Motion Sequence applied to the Destination (set in the Control Assign display (page 100)) is synchronized to the Tempo, Beat, or Arpeggio of the Performance.

Settings: Off, Tempo, Beat, Arp, Lane 1 (when Lane 2–4 is selected)

Off: Lane Motion Sequencer plays back according to its own clock and is not synchronized to an external clock. **Tempo:** Lane Motion Sequencer is synchronized with the Performance tempo.

Beat: Lane Motion Sequencer is synchronized with the beat.

Arp: Lane Motion Sequencer is synchronized with the 1st beat of the measure of the currently playing Arpeggio. **Lane 1:** Lane Motion Sequencer is synchronized with the Lane 1.

Speed (Lane Motion Sequencer Speed)

Determines the playback speed of the Motion Sequence. This is available only when the "Lane Motion Sequencer Sync" is set to "Off." **Settings:** 0–127

Unit Multiply (Lane Motion Sequencer Unit Multiply)

Adjusts the Motion Sequencer playback time for the selected Lane. This is available when the Lane Motion Sequencer Sync parameter is set to something other than "Off" and "Lane 1."

Settings: 50%–6400%, Common, Arp

200%: The playback time will be doubled and the tempo is halved.

100%: The normal playback time.

50%: The playback time will be halved and the tempo doubled.

Common: The value set in the Unit Multiply common to the all Parts will be applied.

Arp: The value set in the Arpeggio Unit Multiply for the selected Part will be applied.

Key On Reset (Lane Motion Sequencer Key On Reset)

Determines whether or not the playback of the Motion Sequence is stopped when you play the keyboard. This parameter is active when the Lane Motion Sequencer Sync parameter is set to something other than "Arp" and "Lane 1."

Also this parameter is not available when "Trigger" is set to "On."

Settings: Off, Each-On, 1st-On

Each-On: The Sequence resets with each note you play and starts the Sequence from the beginning.
1st-On: The Sequence resets with each note you play and starts the Sequencer from the beginning. If you play a second note while the first is being held, the Sequence continues cycling according to the same phase as triggered by the first note—in other words, the Sequence only resets if the first note is released before the second is played.

Loop (Lane Motion Sequencer Loop)

Determines whether the Motion Sequence is played only once or repeatedly. This is available when the Lane Motion Sequencer Sync parameter is set to something other than "Lane 1." **Settings:** Off, On

Velocity Limit (Lane Motion Sequencer Velocity Limit)

Determines the minimum and maximum Velocity values in which the Motion Sequence responds. This is available when the Lane Motion Sequencer Sync parameter is set to something other than "Lane 1." **Settings:** 1–127

Cycle (Lane Motion Sequencer Cycle)

Selects the desired step length for the Motion Sequence. **Settings:** 1–16

Load Sequence

Loads Motion Sequence data in the User Memory. For details about Loading, see "Load" (page 198).

Normal	Part ((AWM2)	Edit

Co		non
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
-	Mo	otion Seq
		Common
		Lane
-	М	od / Control
-		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	09	sc / Tune
-	Pi	tch EG
-	Fil	ter
-		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
-	El	ement LFO
-	El	ement EQ
All	Ele	ement
	0	SC
-	Ba	alance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	ll Part (FM-X) Commo	on/Audio

Edit Sequence

Calls up the Motion Sequence setting display. You can create a custom Sequence consisting of up to sixteen steps.

Motion Seq Step Value (Lane Motion Sequencer Step Value)



Motion Seq Step Type (Lane Motion Sequencer Step Type)

Lane (Current Select Lane)

Indicates the currently selected Lane. This parameter is not displayed when the corresponding Lane Switch is set to off.

Settings: 1-4

Cycle (Lane Motion Sequencer Cycle)

Selects the desired step length for the Motion Sequence. **Settings:** 1–16

Amplitude (Lane Motion Sequencer Amplitude)

Determines how the entire Motion Sequence changes. **Settings:** 0–127

Smooth (Lane Motion Sequencer Smoothness)

Determines the smoothness of the time change of the Motion Sequence. **Settings:** 0–127

Sequence Select (Lane Motion Sequence Select)

Determines the Motion Sequence Select. By selecting a type and pressing [SHIFT] + [EDIT], you can copy or exchange Motion Sequences. For details, see "Copying or Exchanging Motion Sequences" (page 95). Settings: 1–8

Polarity (Lane Motion Sequencer Polarity)

Determines the Sequence Polarity.

Settings: Unipolar, Bipolar

Unipolar: Unipolar changes only in a positive direction from a base parameter value according to the Sequence. **Bipolar:** Bipolar changes in both of positive and negative directions from a base parameter value.

Motion Seq Step Value (Lane Motion Sequencer Step Value)

Determines the Step Value for the Motion Sequence. You can control the Step Value 1–4, 5–8, 9–12 or 13– 16 by the Control Sliders 1–4 (5–8 / 9–12 / 13–16) depending on the cursor position on the display. **Settings:** 0–127

Normal Part (AWM2) Edit

INOI	mai	Part (AVVIVIZ) Euit				
Co	omn	non				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Ef	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Mo	otion Seq				
		Common				
		Lane				
	Mo	od / Control				
		Part LFO				
		Control Assign				
		Receive SW				
Ele	eme	ent				
	05	sc / Tune				
	Pi	tch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	Ar	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	Ele	ement LFO				
	Ele	ement EQ				
AI	l Ele	ement				
	05	SC				
	Ba	lance				

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Nor	rmal Part (FM-X) Cor	nmon/Audio
•		on Sequencer Step T	•••		Normal Part (AWM2)
		on Sequence. You can s			Common
the Step 1–8 or 9- Settings: A, B	-16 by the SUEINE [1/3	5]–[4/8] buttons dependi	ng on the cursor posi	ition on the display.	Part Settings
-					General
	•	equencer Step Curve	••••		Pitch
		neter for each of "Pulse , ve set here is used for ea		otion Seq Step Type"	Zone Setting
		ve set nere is used for ea , Threshold, Bell, Dogleg, FM,		nooth Saw Triangle.	Zone Transm
Square, Tr	rapezoid, Tilt Sine, Bounce,	e, Resonance, Sequence, Hole	ld	nooth ouw, mangle,	Effect
		ameter Manual PDF document	ıt.		Routing
	Bank: User 1–32 ibrary file is read: Curves in	Library 1_8			Ins A
					Ins B
•		er Step Curve Direct			EQ
		urve for the Motion Seque	ence.		Ins Assign
Settings: Forward, F	Reverse				Arpeggio
Prm1/Prm2 (La	ne Motion Sequenc	cer Step Curve Paran	neter)		Common
		the Motion Sequence.			Individual
	not available dependin pending on the Curve T	ing on the Curve Type. A	Iso the range of avail	able parameter	Advanced
Values uniers uep		ype.			Motion Seq
•	•	Step Curve Shape Co	•		Common
		e shape of the Step Curv	•	,	Lane
knobs. This parar depending on the		y when "MS FX" is set to	on. Also this parame	ter is not available	Mod / Control
Settings: Off, On	, ourve type.				Part LFO
-					Control Ass
Store Sequence		ataila about storing data	s and "Stara/Sava" (p	~~~ 201)	Receive SW
Slores the edited	Sequence uala. For ut	etails about storing data	l, see Slore/Save (po	age 201).	Element
					Osc / Tune
					Pitch EG
					Filter
					Туре
					Filter EG
					Scale
					Amplitude
					Level / Pan
					Level / Fail
					Amp EG

Element LFO Element EQ

Copy or Exchange Elements

-

All Element Osc Balance

eference	Performance	Edit	Search	Utility	У	Live Set	
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common	/Audio	
	or Exchanging Motic	on Sequences			Nor	mal Part (AWM2) Ec	
	or exchange between Moti					ommon	
	-					Part Settings	
	[PERFORMANCE (HOME)] - + [EDIT]	\rightarrow [EDIT] \rightarrow Select Part to	be copied \rightarrow [Moti	on Seq] \rightarrow [Lane] \rightarrow [SHIF	-T] .	General	
.	or					Pitch	
Operation	[PERFORMANCE (HOME)] - + [EDIT]	\rightarrow [Motion Control] \rightarrow [Mot	tion Seq] \rightarrow Select	Part to be copied \rightarrow [SHIF	-1]	Zone Settings	
	or					Zone Transmit	
	[PERFORMANCE (HOME)]	\rightarrow [Motion Control] \rightarrow [Kn	ob Auto] \rightarrow [SHIF I]+[EDII]	-	Effect	
		Copy Exchange			-	Routing	
						Ins A	
		Copy Exchange				Ins B	
						EQ	
						Ins Assign	
0	Part	Part			4	Arpeggio	
	4		4			Common	
	Lane	Lane				Individual	
0					5 .	Advanced	
			1			Motion Seq	
	MS Select	t MS S	elect			Common	
8	1	•••••>	2		6.	Lane Mod / Control	
			2			Part LFO	
						Control Assign	
	Cancel		Сору			Receive SW	
	Cancer		сору		Ele	ement	
						Osc / Tune	
NOTE You can	select "All" for "Lane" and "M	S Select" when copying t	between different F	Parts.		Pitch EG	
Сору					-	Filter	
	button activates the Motion	Sequence Copy funct	ion.		-	Туре	
Typhones						Filter EG	
Exchange	button activates the Motion	Sequence Exchange	function			Scale	
_						Amplitude	
	e copied (or exchanged					Level / Pan	
NOTE The	currently selected Part is set a	automatically and this set	ting cannot be cha	anged.		Amp EG Scale	
2 Lane to b	2 Lane to be copied (or exchanged)						
Motion S	equence Select to be c	opied (or exchange	ed)			Element LFO Element EQ	
_			/		All	Element	
Copy (or	exchange) destination	Part				Osc	
G Copy (or	exchange) destination	Lane			-	Balance	

Copy or Exchange Elements

-

Reference	Performance	Edit	Search	Utility	Live Set	
		Normal Part (AWM2)	Drum Part Norma	l Part (FM-X) Commo	n/Audio	

Mod/Control (Modulation/Control)

Part LFO

From the Part LFO display you can set the LFO-related parameters for the Part.



[PERFORMANCE (HOME)] → [EDIT] → Part selection → Element [Common] → [Mod/Control] → [Part LFO]

A	🕇 Edit		F	X		$0 \xrightarrow{-1}{\leq q}$	٦	140			ø		
Part Settings	Part LFO	LFO Wave Triang	le 🔨	Edit Us	ے er LFO	' 🧹		$\overline{}$					
Effect	Control	Tempo Sync	Tempo Speed 🔻			Dela		Fade	In	Hold		Fade	Out
Effect	Assign	ON	1/4				0 0		Hold		64		
Arpeggio	Receive SW	Key On Reset 🔻	Loop		Phase			Eler	nent Pl	nase Of	fset _		
	511	Off	ON		0°	0°	0°	0°	0°	0°	0°	0°	0°
Motion Seq				-		1	2	3	4	5	6	7	8
Jeq		Destination			Depth			Ele	ment D	epth Ra	atio		
Mod /			Cutoff		0	127	127	127	127	127	127	127	127
Control		Pan			0	127	127	127	127	127	127	127	127
			Pan		0	127	127	127	127	127	127	127	127
Part 1	Common	Elem1 Elem2	Elem3 Ele	m4 E	lem5	Elem6	Ele	m7	Elem8	•	AII		

LFO Wave

Selects the LFO waveform.

Settings: Triangle, Triangle+, Saw Up, Saw Down, Squ1/4, Squ1/3, Square, Squ2/3, Squ3/4, Trapezoid, S/H1, S/H2, User

Tempo Sync (LFO Tempo Sync)

Determines whether or not the LFO is synchronized to the tempo of the Arpeggio or Song. **Settings:** Off (not synchronized), On (synchronized)

Normal Part (AWM2) Edit									
Co	omn	hon							
	Pa	rt Settings							
		General							
		Pitch							
		Zone Settings							
		Zone Transmit							
	Effect								
		Routing							
		Ins A							
		Ins B							
		EQ							
		Ins Assign							
	Arpeggio								
		Common							
		Individual							
		Advanced							
	Motion Seq								
		Common							
		Lane							
	Mod / Control								
		Part LFO							
		Control Assign							
		Receive SW							
Ele	eme	ent							
	05	sc / Tune							
	Pi	tch EG							
	Fil	ter							
		Туре							
		Filter EG							
		Scale							
	Ar	nplitude							
		Level / Pan							
		Amp EG							
		Scale							
	Ele	ement LFO							
	Ele	ement EQ							
Al	I Ele	ement							
	05	SC							
	Ba	llance							

Reference	Performance	Edit	Search	Utility	Live Set	
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio	

■ When "Tempo Sync" is set to "OFF"

•	🖍 🚹 Edit - Part1 - Common					F	Х		$\varphi \xrightarrow{i}_{q}$	٦	140			o
Part Settings	Part LFO	LFO Wave Tria	ngle /	C Edit	Us	ے er LFO	'₩	\mathbb{N}	\mathbb{N}	\mathbb{N}	\mathbb{N}	\mathbb{W}	\mathbb{N}	\mathbb{W}
Effect	Control	Tempo Sync	Speed	Rand	om	Speed	Dela		Fade	In	Hold		Fade	Out
Епест	Assign	OFF	32		C	0 0			0	н	old	64		
Arpeggio	Receive SW	Key On Reset	Loop			Phase			Eler	nent Pl	nase Of	fset _		
	511	Off	ON			0°	0°	0°	0°	0°	0°	0°	0°	0°
Motion Seq		Destination			▼	Depth	1	2	3 Ele	4 ment D	5 epth Ra	6 atio	7	8
Mod /			Cutoff			0	127	127			127		127	127
Control		Pan				0	127	127	127	127	127	127	127	127
		Pan				0	127	127	127	127	127	127	127	127
Part 1	Common	Elem1 Ele	m2 Elem3	Elem4	El	em5	Elem6	Ele	m7	Elem8	•	AII		

Speed (LFO Speed)

Adjusts the speed (frequency) of LFO variation. This is not available when the Tempo Sync parameter is set to "On."

Settings: 0-63

Random Speed (LFO Random Speed Depth)

Determines the degree to which the LFO speed changes at random. **Settings:** 0–127

When "Tempo Sync" is set to "ON"

A	🖍 🚹 Edit - Part1 - Common				F	х			J	140			¢.
Part Settings	Part LFO	LFO Wave Triar	ngle 🔨 📈	Edit Us	ے er LFO			\checkmark	/			/	
Effect	Control Assign	Tempo Sync	Tempo Speed			Dela		Fade	In	Hold		Fade	Out
Assign		ON	1/4				0		0	Hold		64	
Arpeggio	Receive SW	Key On Reset	Loop		Phase	-	-	Eler	nent Pl	hase Of	fset 👻	-	-
	5.1	Off	ON		0°	0°	0°	0°	0°	0°	0°	0°	0°
Motion						1	2	3	4	5	6	7	8
Seq		Destination			Depth			Ele	ment D	epth Ra	atio		
Mod /			Cutoff		0	127	127	127	127	127	127	127	127
Control			Pan		0	127	127	127	127	127	127	127	127
			Pan		0	127	127	127	127	127	127	127	127
Part 1	Common	Elem1 Eler	n2 Elem3 Ele	:m4 E	lem5	Elem6	Ele	•m7	Elem8	,	411		

Tempo Speed (LFO 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.

Settings: 1/16, 1/8 Tri. (eighth-note triplets), 1/16 Dot. (dotted sixteenth notes), 1/8, 1/4 Tri. (quarter-note triplets), 1/8 Dot. (dotted eighth notes), 1/4, 1/2 Tri. (half-note triplets), 1/4 Dot. (dotted quarter notes), 1/2, Whole Tri. (whole-note triplets), 1/2 Dot. (dotted half notes), 1/4 x 4 (quarter-note quadruplets; four quarter notes to the beat), 1/4 x 5 (quarter-note quintuplets; five quarter notes to the beat), 1/4 x 6 (quarter-note sextuplets; six quarter notes to the beat), 1/4 x 7 (quarter-note septuplets; seven quarter notes to the beat), 1/4 x 8 (quarter-note octuplets; eight quarter notes to the beat), 1/4 x 16 (sixteen quarter-notes to the beat), 1/4 x 32 (32 quarter notes to the beat), 1/4 x 64 (64 quarter notes to the beat)

Normal Part (AWM2) Edit

NOLI	na	Part (AWW2) Edit							
Co	mn	non							
	Pa	rt Settings							
		General							
		Pitch							
		Zone Settings							
		Zone Transmit							
	Ef	fect							
-		Routing							
		Ins A							
		Ins B							
		EQ							
		Ins Assign							
-	Ar	peggio							
-		Common							
		Individual							
-		Advanced							
-	Motion Seq								
-		Common							
		Lane							
-	Mo	od / Control							
-		Part LFO							
		Control Assign							
		Receive SW							
Ele	eme	ent							
	0	sc / Tune							
_	Pi	tch EG							
	Fil	ter							
		Туре							
		Filter EG							
_		Scale							
_	Ar	nplitude							
		Level / Pan							
		Amp EG							
_		Scale							
_	El	ement LFO							
	El	ement EQ							
All	Ele	ement							
_	0	SC							
	Ba	alance							

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Nor	ormal Part (FM-X) Cor	ommon/Audio
Delay (LFO Dela	lay Time)				Normal Part (AWM2) Ed
Determines the de	lelay time between the r	moment you press a key	y on the keyboard and	I the moment the LFO	Common
comes into effect.					Part Settings
Settings: 0-127					General
Fade In (LFO Fa	ade In Time)				Pitch
•	•	_FO effect to fade in (afte	er the "Delay" time ha	.s elapsed).	Zone Settings
Settings: 0-127					Zone Settings Zone Transmit
Hold (LFO Hold	d Time)				Effect
•		hich the LFO is held at it	ts maximum level.		Routing
Settings: 0–126, Hol					
Hold: No f					Ins A
	- Sada Quit Tima)				Ins B
•	Fade Out Time) ime over which the LEO	O effect is faded out (afte	tor the "Hold" time has	alancad)	EQ
Settings: 0–127) פוופטנ וא ומטפט טעג נעיני			Ins Assign
-					Arpeggio
•	(LFO Key On Reset)				Common
		eset each time a note is	pressed.		Individual
Settings: Off, Each-O			the nhase sp	-: # - d by the Phase	Advanced
Each-On: parameter.		h note you play and starts a v	Naveform at the phase spe	BCITIED BY THE FHASE	Motion Seq
1st-On: ⊺h	The LFO resets with each no	note you play and starts a wa			Common
		e while the first is being held, —in other words, the LFO only			Lane
is played.	00 ,	-IN other words, the Li C only	resets if the first hole is re-	eased before the second	Mod / Control
					Part LFO
Loop (LFO Loop	- /	the second states time	(()	4 X	Control Assign
Settings: Off, On	1er the LFU wave plays	ys through a single time	(OTT) OF CONTINUOUSING	on).	Receive SW
-					Element
Phase (LFO Pha					Osc / Tune
		the LFO Wave when it is	s reset.		
Settings: 0°, 90°, 12	20°, 180°, 240°, 270°				Pitch EG
Element Phase	e Offset (LFO Eleme	ent Phase Offset)			Filter
	•	ase" parameter (above)	for the respective Ele	ments.	Туре
Settings: 0°, 90°, 12					Filter EG
- the stien / I					Scale
•	FO Destination)		· ·		Amplitude
		controlled by the LFO W nsertion Effect B Parameter 1		Pasananan Pan FIFO	Level / Pan
Settings: Insertion E Speed	Illeut A Farameter - 2 .,	Settion Elector aramston.	-24, Level, Filler, Oalen,	iesuliance, r an, c.c. C	Amp EG
	··				Scale
Depth (LFO Dep	• •	"Destination" paramet	(Element LFO
Set the LFO Wave Settings: 0–127		or "Destination" paramete	er (above).		Element EQ
-					All Element
-	n Ratio (LFO Elemen	• •			Osc
		pth" parameter (above)			Balance
are set in "Destina	ation."	available. This is availab	ble only when Element	related parameters	by Unarres
Settings: Off, 0–127	7				
					Copy or Exchange

Copy or Exchange Elements

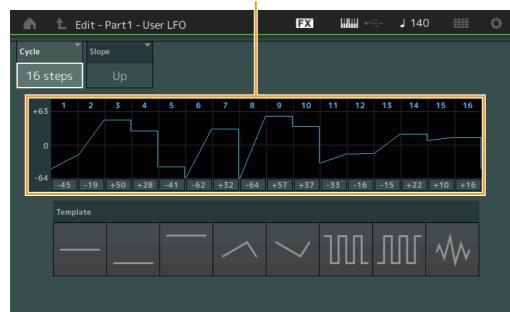
-

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Edit User LFO

Calls up the User LFO Setting display. You can create a custom LFO wave consisting of up to sixteen steps.

User LFO Step Value



Cycle

Selects the desired step length for the LFO. **Settings:** 2 steps, 3 steps, 4 steps, 6 steps, 8 steps, 12 steps, 16 steps

Slope

Determines the slope or ramp characteristics of the LFO wave. **Settings:** Off (no slope), Up, Down, Up&Down

User LFO Step Value

Determines the level for each step. **Settings:** -64 - +63

Template

This includes pre-programmed settings for creating an original LFO.

Normal Part (AWM2) Edit

		- a (/
Co	omn	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		Control Assign
		Receive SW
El	eme	ent
	05	sc / Tune
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
AI	l Ele	ement
	05	SC
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Control Assign

Operation

From the Control Assign display you can make controller assign settings for the Part. You can change sounds as desired by setting the desired controller to "Source" and the desired parameter to "Destination." Not only physical controllers such as the Pitch Bend wheel but also Motion Sequencer or Envelope Follower can be set to "Source" as a virtual controller. Up to 16 Controller Sets can be assigned to each Part.

$[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \ \mathsf{selection} \rightarrow \mathsf{Element} \ [\mathsf{Common}] \rightarrow [\mathsf{Mod}/\mathsf{Control}] \rightarrow [\mathsf{Control} \ \mathsf{Assign}]$

A	🛍 Edit	- Part1 - Comr	non		Ð	ĸ		- J	140		0
Part Settings	Part LFO	Auto Display Select	Filter ModWheel	Ŧ						Page 1	
Effect	Control Assign	Destination 1 Cutofi	Destinat	tion 2 esonan	ce		+				
Arpeggio	Receive SW	Source	Element SW	1	2	3	4	5	6	7	8
Motion		ModWheel		ON	ON	ON	ON	ON	ON	ON	ON
Seq		Curve Type		Polarity		Ratio		Param 1	1		
Mod / Control		Standard		Uni	Ві		20	1	5		
			묘 Edit User Curve	Con	ommon trol tings					Del	D
▼ Part 1	Common	Elem1 Elem2	Elem3 Ele	m4 El	lem5	Elem6	Elem7	Elem8	AII		

Auto Select (Auto Select Switch)

Determines whether the Auto Select function for Display Filter (below) is active (On) or not (Off). When this parameter is set to "On," the operated Controller is automatically set in "Display Filter". Also you can obtain the same result by pressing the [CONTROL ASSIGN] button. **Settings:** Off, On

Display Filter

Determines the Controller to be displayed. When "Super Knob" is selected, all Assignable Knob settings to be affected by using the Super Knob are displayed.

Settings: PitchBend, ModWheel, AfterTouch, FootCtrl 1, FootCtrl 2, FootSwitch, Ribbon, Breath, AsgnKnob 1–8, Super Knob, AsgnSw 1, AsgnSw 2, MS Lane 1–4, EnvFollow 1–16, EnvFollowAD, EnvFollowMst, All

Display Name

Determines the name of each Assignable Knob 1–8 which is displayed in the Performance Play display (page 27). This is available only when "AsgnKnob 1–8" is set in "Source."

Normal Part (AWM2) Edit

	ma					
Co	Common					
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Ef	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	М	otion Seq				
		Common				
		Lane				
	Mod / Control					
		Part LFO				
		Control Assign				
		Receive SW				
Ele	eme	ent				
	09	sc / Tune				
	Pi	tch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	Ar	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	El	ement LFO				
	El	ement EQ				
All	l Ele	ement				
	09					
	Ba	lance				

Reference	Performance	Edit	Search	Utility	L	ive Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio	
Destination					Normal Par	t (AWM2) Edit

Destination

Determines the target parameter to be controlled. To add another Destination, touch "+" icon. For information on setting examples for "Destination," see below. Settings: See the "Control List" in the Data List PDF document.

Destination Setting Examples

The following settings are some useful examples how to set the Destination.

To control the volume:	Part Param \rightarrow Volume
To change the pitch:	Part Param -> Pitch
To change the speed of the Rotary Speaker:	Ins A/B → InsA/B SpdCtrl *1
To apply a Wah pedal effect:	Ins A/B → InsA/B PdICtrl *2

Concerning *1 and *2, the following settings are necessary in addition to the above settings.

*1 "Ins A/B Type" = "Rotary Speaker" in the Effect display of Part Edit

*2 "Ins A/B Type" = "VCM Pedal Wah" in the Effect display of Part Edit

Source

Determines the desired Controller for controlling the parameter set in "Destination."

Settings: PitchBend, Modwheel, AfterTouch, FootCtrl 1, FootCtrl 2, FootSwitch, Ribbon, Breath, AsgnKnob 1–8, AsgnSw 1, AsgnSw 2, MS Lane 1-4, EnvFollow 1-16, EnvFollowAD, EnvFollowMst

Element SW (Element Switch)

Selects whether the controller will affect each individual Element (On) or not (Off). This is available only when Element-related parameters are set in "Destination."

Settings: Off, On

Normal Part (AWM2) Edi

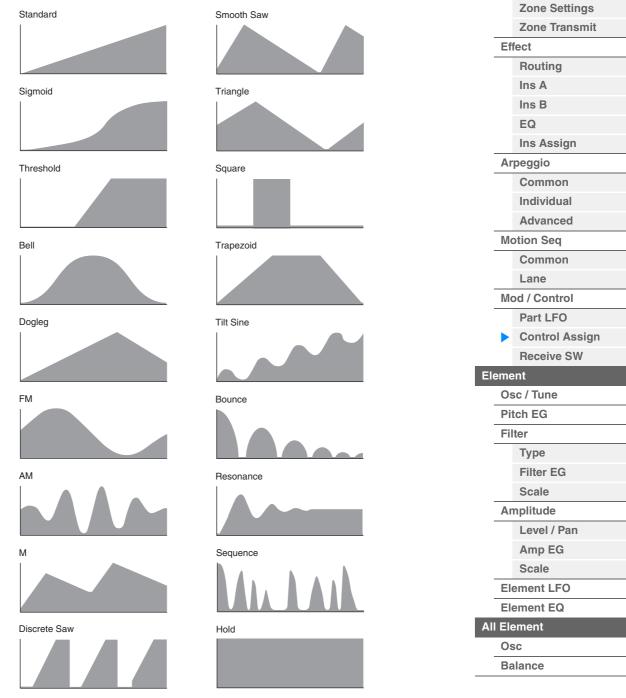
Normal Part (AWM2) Edit			
Co	omm	non	
	Pa	rt Settings	
		General	
		Pitch	
		Zone Settings	
		Zone Transmit	
	Eff	fect	
		Routing	
		Ins A	
		Ins B	
		EQ	
		Ins Assign	
	Ar	peggio	
		Common	
		Individual	
		Advanced	
	Mc	otion Seq	
		Common	
		Lane	
	Mc	od / Control	
		Part LFO	
		Control Assign	
		Receive SW	
Ele	eme	ent	
	Os	sc / Tune	
	Pit	tch EG	
	Fil	ter	
		Туре	
		Filter EG	
		Scale	
	An	nplitude	
		Level / Pan	
		Amp EG	
		Scale	
	Ele	ement LFO	
	Ele	ement EQ	
Al	l Ele	ement	
	Os	SC .	
	Ва	alance	

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commor	n/Audio

Curve Type

Determines the Curve type of the parameter set in "Destination." In the illustrations below, the vertical axis indicates the operation value of the controller set in "Destination" and the horizontal axis indicates the parameter value set in "Source."

Settings: Standard, Sigmoid, Threshold, Bell, Dogleg, FM, AM, M, Discrete Saw, Smooth Saw, Triangle, Square, Trapezoid, Tilt Sine, Bounce, Resonance, Sequence, Hold, User 1–32 (when User Bank is selected), Library 1–8 (when the Library file is read)



Polarity (Curve Polarity)

Determines the Curve Polarity of the Curve type set in "Curve Type."

Settings: Uni, Bi

Uni: Unipolar changes only in a positive direction or in a negative direction from a base parameter value according to the Curve shape.

Bi: Bipolar changes in both of positive and negative directions from a base parameter value.

Ratio (Curve Ratio)

Determines the Curve Ratio. **Settings:** -64 – +63

- 2		1
	Copy or Exchange	
	Elements	

Normal Part (AWM2) Edit

Part Settings

Pitch

General

Common

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Param 1/Param 2 (Curve Parameter)

Adjusts the Curve shape. This is not available depending on the Curve Type.

Destination to Name

Copies the Parameter name from "Destination" to "Display Name." This is available only when "Source" is set to "AsgnKnob 1–8."

Edit Common Control Settings

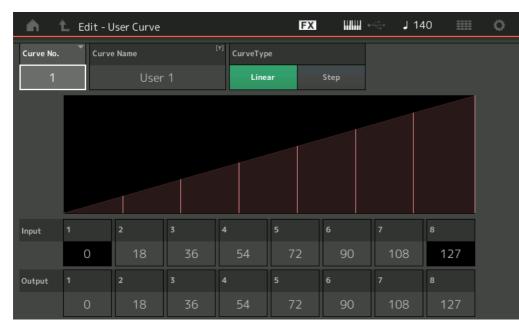
Calls up the Control Assign display for Common/Audio Edit.

Delete

Deletes the selected "Destination."

Edit User Curve

Calls up the User Curve Setting display. You can select "Linear" (Curve by Linear Interpolation of eight coefficients) or "Step."



Curve No. (Curve Number)

Indicates the selected Curve Number. **Settings:** 1–32

Curve Name

Names the selected Curve. Touching the parameter calls up the input character display.

Curve Type

Determines the Curve Type. **Settings:** Linear, Step

Input

Determines the Input level of the Curve. "Input 1" is fixed to "0." "Input 8" is fixed to 127 when the Curve Type is "Linear." Settings: 0–127

Output

Determines the Output level of the Curve. **Settings:** 0–127

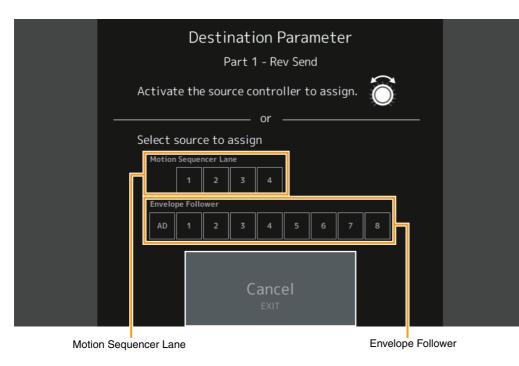
Normal Part (AWM2) Edit

Nor	mal	Part (AWM2) Edit				
Co	omn	hon				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Ef	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Мо	otion Seq				
		Common				
		Lane				
	Мо	/lod / Control				
		Part LFO				
		Control Assign				
		Receive SW				
Ele	eme	ent				
	09	sc / Tune				
	Pit	tch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	An	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	Ele	ement LFO				
	Ele	ement EQ				
Al	I Ele	ement				
	05	SC				
	Ba	lance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio

■ Selecting Controllers from a display other than Control Assign

While displays other than the Control Assign display are shown, you can select controllers using the [CONTROL ASSIGN] button on the panel. When the cursor is on the parameter that can be set as a Destination, the [CONTROL ASSIGN] button on the panel lights up. Press the [CONTROL ASSIGN] button while the button is lit, and the Destination Parameter display appears. Move the controller on the panel or touch a number shown on the display to select a Source. The Control Assign display then appears with the Source selected in the Destination Parameter display set as the Source.



NOTE An error message appears when you move the Super knob and there are no more Assignable Knobs available for assigning a Source.

Normal Part (AWM2) Edit

Comr	non
Pa	art Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
Ef	fect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
Αι	rpeggio
	Common
	Individual
	Advanced
M	otion Seq
	Common
	Lane
M	od / Control
	Part LFO
	Control Assign
	Receive SW
Eleme	ent
0	sc / Tune
Pi	tch EG
Fi	lter
	Туре
	Filter EG
	Scale
Αι	mplitude
	Level / Pan
	Amp EG
	Scale
EI	ement LFO
EI	ement EQ
	ement
0	SC
Ba	alance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Receive SW (Receive Switch)

From the Receive Switch 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.

NOTE If CC (Receive Control Change) here is set to "OFF," parameters related to Control Change are not available.



 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element [Common] \rightarrow [Mod/Control] \rightarrow [Receive SW]$

Ŵ	1 Edit	- Part1 - Co	ommon		EX	3	è م	140	•
Part	Part LFO	Pgm Change	Bank Sel	ect P	Pitch Bend	After Touch			
Settings	LFO	ON	0	N	ON	ON			
Effect	Control Assign								
Arpeggio	Receive SW	cc	Vol/Exp	Pan	MW	Sustain	FC1	FC2	FS
Motion		ON	ON	ON	ON	ON	ON	ON	ON
Seq		A. SW1	A. SW2	MS Hold	MS Trigger	RB	вс		
Mod / Control		ON	ON	ON	ON	ON	ON		
		A. Knob 1	A. Knob 2	A. Knob 3	A. Knob 4	A. Knob 5	A. Knob 6	A. Knob 7	A. Knob 8
		ON	ON	ON	ON	ON	ON	ON	ON
Part 1	Common	Elem1 El	em2 Elem	3 Elem4	Elem5	Elem6		AII	

Pgm Change (Receive Program Change)

Determines whether Program Change messages are received or not. **Settings:** Off, On

Bank Select (Receive Bank Select)

Determines whether Bank Select MSB/LSB messages are received or not. This is not available when the Receive Control Change is set to Off. **Settings:** Off, On

Pitch Bend (Receive Pitch Bend)

Determines whether MIDI messages generated by using the Pitch Bend Wheel are received or not. **Settings:** Off, On

After Touch (Receive After Touch)

Determines whether After Touch messages are received or not. **Settings:** Off, On

CC (Receive Control Change)

Determines whether Control Change messages are received or not. **Settings:** Off, On

Vol/Exp (Receive Volume/Expression)

Determines whether volume messages are received or not. This is not available when the Receive Control Change is set to Off. **Settings:** Off, On

Pan (Receive Pan)

Determines whether Pan messages are received or not. This is not available when the Receive Control Change is set to Off. **Settings:** Off, On

Normal Part (AWM2) Edit

norma	Part (AVVM2) Edit
Comr	non
Pa	art Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
Ef	fect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
Α	rpeggio
	Common
	Individual
	Advanced
M	otion Seq
	Common
	Lane
M	od / Control
	Part LFO
	Control Assign
	Receive SW
eme	ent
0	sc / Tune
Pi	tch EG
Fi	lter
	Туре
	Filter EG
	Scale
A	mplitude
	Level / Pan
	Amp EG
	Scale
EI	ement LFO
EI	ement EQ
II El	ement
0	sc
Ba	alance

eference	Performance	Edit	Search	Util	ity	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Auc	lio
		· · · · · · · · · · · · · · · · · · ·				
•	lodulation Wheel) her MIDI messages gen	erated by using the Mo	odulation Wheel	are received or not.	Normal	Part (AWM2) Edit
This is not availab Settings: Off, On	ble when the Receive Co	ontrol Change is set to	Off.			rt Settings
Sustain (Dessi	ve Sustain)					General
Sustain (Receiv	ve Sustain) ner Sustain messages a	re received or not				Pitch
	ble when the Receive Co		Off.			Zone Settings
Settings: Off, On		<u> </u>				Zone Transmit
					Eff	ect
•	ive Foot Controller)		antional Fact C			Routing
not.	ner MIDI messages gen	erated by pressing the	optional Foot C	ontroller are received	l Or	Ins A
	le when the Receive Co	ontrol Change is set to	Off.			Ins B
Settings: Off, On		0				EQ
FS (Receive Fo	ot Switch)					Ins Assign
•	ner MIDI messages gen	erated by pressing the	ontional Foot S	witch are received or	not Ar	peggio
	ble when the Receive Co					Common
Settings: Off, On		0				Individual
	Dessive Assistable	o Cwitch)				Advanced
	? (Receive Assignable ner MIDI messages gen				Mc	otion Seq
received or not.	iei MiDi messages gen	erated by pressing the				Common
This is not availab	le when the Receive Co	ontrol Change is set to	Off.			Lane
Settings: Off, On					Ma	od / Control
MS Hold (Recei	ive Motion Sequence	er Hold)				
•	ner MIDI messages gene		[MOTION SEQ F	OI D1 button are rece	eived	Part LFO
or not.	ier mill i meeedgee gem	proceilig the	[Control Assign
This is not availab	le when the Receive Co	ontrol Change is set to	Off.			Receive SW
Settings: Off, On					Eleme	
MS Trigger (Re	ceive Motion Seque	ncer Trigger)			Os	c / Tune
	ner MIDI messages gen		[MOTION SEQ	TRIGGER] button are	e Pit	ch EG
received or not.			-	-	Fil	ter
	ble when the Receive Co	ontrol Change is set to	Off.			Туре
Settings: Off, On						Filter EG
RB (Receive Ri	bbon Controller)				_	Scale
	ner MIDI messages for F				An	nplitude
	ble when the Receive Co	ontrol Change is set to	Off.			Level / Pan
Settings: Off, On						Amp EG
BC (Receive Br	reath Controller)					Scale
	ner MIDI messages for E				Ele	ement LFO
	ble when the Receive Co	ontrol Change is set to	Off.		Ele	ement EQ
Settings: Off, On					All Ele	ement
A.Knob 1–8 (Re	eceive Assignable K	nob)			Os	C
•	ner MIDI messages gen	•	signable Knobs	1-4 (5-8) are receive	ed or Ba	lance
not.			o."			
I his is not availab	Δu_{0} when the Receive C_{0}	ntrol Change is set to	1 177			

Copy or Exchange Elements

Settings: Off, On

This is not available when the Receive Control Change is set to Off.

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X) Com	mon/Audio

Element Edit (Element)

Osc/Tune (Oscillator/Tune)

From the Oscillator/Tune display you can assign the waveform (or basic sound material) to each Element. 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).

Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Osc/Tune]

	E	lement	Switch								
n t	Edit -	- Part1 ·	- Elemer	nt1		FX		•	- J 140		¢
Osc / Tune		ON	^{Bank} Prese	Number et 2475	Category S.FX	Sub Catego SE		Nam	e Moving	Harp St	
Pitch EG		XA Contr Norr		Elem Group	Elem Conne InsA	:t T			New Waveform	n	
Filter			Coarse	Fine		ine/Key	Randor	n			_
Amplitude			+0	+0	+0	+0	0				
Element		Vel Cross	Fade	Key On Delay	Tempo Sync	Leng	th O				
LFO		Velocity	Limit		Note Limit		0		Center Key	Pitch/I	Key
Element EQ		• 1		127	• C -2		G 8	•	C 3	+1	00%
Part 1 C	ommon	Elem1	Elem2	Elem3 Ele	em4 Elem5		Ele	m7	Elem8 A	All Mu	te Solo

Bank (Waveform Bank) Number (Waveform Number) Category (Waveform Category) Sub Category (Waveform Sub Category) Name (Waveform Name)

Indicates the information of the waveform used for the selected Element. "Bank" indicates which waveform location (Preset, User and Library) is assigned to the Element. **Settings:** See the Data List PDF document.

Element Switch

Determines whether the currently selected Element is on or off. **Settings:** Off, On

XA Control

Determines the functioning of the Expanded Articulation (XA) feature of an Element.

The XA feature is sophisticated tone generator system that allows you to more effectively recreate realistic sound and natural performance techniques. It also provides other unique modes for random and alternate sound changes as you play. For details on the XA feature, see the "Tone Generator Block" in the "Basic Structure" on page 6.

Settings: Normal, Legato, Key Off, Cycle, Random, A.SW Off, A.SW1 On, A.SW2 On

For each Element, you can set to:

Normal: The Element sounds normally each time you play the note.

Legato: When the Mono/Poly parameter is set to Mono, this Element will be played in place of the one which is set to "Normal" of the XA Control parameter when you play the keyboard in legato fashion (playing the next note of a single-note line or melody before releasing the previous note).

Key Off: The Element will sound each time you release the note.

Cycle (for multiple Elements): Each Element sounds alternately according to its numerical order. In other words, playing the first note will sound Element 1, the second note Element 2, and so on.

Random (for multiple Elements): Each Element will sound randomly each time you play the note.

A.SW1 On: When the [ASSIGN 1] button is turned On, the Element will sound.

A.SW2 On: When the [ASSIGN 2] button is turned On, the Element will sound.

A.SW Off: When both the [ASSIGN 1] and [ASSIGN 2] buttons are turned Off, the Element will sound.

Normal Part (AWM2) Edit

Com	mon
Р	art Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
E	ffect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
А	rpeggio
	Common
	Individual
	Advanced
IV	lotion Seq
	Common
	Lane
IV	lod / Control
	Part LFO
	Control Assign
	Receive SW
Elem	
> 0	sc / Tune
Р	itch EG
F	ilter
	Туре
	Filter EG
	Scale
A	mplitude
	Level / Pan
	Amp EG
	Scale
E	lement LFO
E	lement EQ
	lement
0	sc
В	alance

eference	Performance	Edit	Search Utility		/	Live Set	
		Normal Part (AWM2)	Drum Part	Normal Par	t (FM-X)	Common/A	ludio
Elem Group (E	• •						nal Part (AWM2) Edit
		Elements that have the					nmon
same group num Normal.	per. This setting does no	ot apply when the XA Co	ontrol paramet	ers of all Elem	ents are se		Part Settings
Settings: 1-8							General
-	<i></i>	• • • • •					Pitch
	(Element Connectio	•			· · "-	. .	Zone Settings
	ion Effects for the spec	B) is used to process ead if ed element	ch individual i	lement. Set th	iis to "Thru	to	Zone Transmit
Settings: Thru, InsA							Effect
-							Routing
New Waveform							Ins A
Loads Audio data (page 198).	a stored in the USB flash	n drive as "Waveform." I	-or details on	loading, see "l	Load"		Ins B
	m is loaded, the Edit W	aveform parameter (bel	ow) will be av	ailable.			EQ
			-,				Ins Assign
Coarse (Coarse	,						
	itch of each Element in	semitones.					Arpeggio
Settings: -48 – +48							Common
Fine (Fine Tune	e)						Individual
Determines the fir	ne tuning for the pitch c	f each Element.					Advanced
Settings: -64 - 63							Motion Seq
Pitch/Vel (Pitch	Velocity Sensitivity	<i>I</i>)					Common
•		d Element responds to v	elocity.			_	Lane
Settings: -64 - 63		·					Mod / Control
		y the keyboard, the more the					Part LFO
-		ay the keyboard, the more th	e pitch falls.				Control Assign
U: NO CHA	nge in pitch.						Receive SW
Fine/Key (Pitch	Fine Key Follow Se	ensitivity)				Eler	ment
	egree to which the note	es (specifically, their pos	ition or octave	e range) affect	the pitch i	n 🕨	Osc / Tune
Fine Tuning. Settings: -64 – 63							Pitch EG
0	values: The nitch of lower r	notes drops and that of highe	er notes rises				Filter
		notes rises and that of highe					Туре
							Filter EG
•	lom Pitch Depth)	the Flowent for each no	ta yay alay T	ha higher the	alua tha		Scale
greater the pitch		the Element for each no	ne you play. T	ne nigher the v	value, the		Amplitude
Settings: 0–127						_	Level / Pan
							Amp EG
	e (Velocity Cross Fac		in propertier	to the distance		+. /	Scale
	the Velocity Limit setting	an Oscillator decreases		i to the distanc			Element LFO
Settings: 0-127							Element EQ
The highe	r the value, the more gradua	ally the volume decreases.				All	Element
0: No sou	nd						Osc
Tempo Svnc (K	key On Delay Tempo	Svnc Switch)				_	Balance
• • •		y" (below) is synchroniz	ed to the tem	po.			
	n Delay Time Length	•					y or Exchange ments
point at which the		between the moment you ed. You can set different rnc" is set to on.					nentə

Settings: 0-127

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part No	mal Part (FM-X) Commo	n/Audio

Length (Key On Delay Note Length)

Determines the timing of "Key On Delay" when "Key On Delay Tempo Sync" is set to on.

Settings: 1/16, 1/8 Tri. (eighth-note triplets), 1/16 Dot. (dotted sixteenth notes), 1/8, 1/4 Tri. (quarter-note triplets), 1/8 Dot. (dotted eighth notes), 1/4, 1/2 Tri. (half-note triplets), 1/4 Dot. (dotted quarter notes), 1/2, Whole Tri. (whole-note triplets), 1/2 Dot. (dotted half notes), 1/4 x 4 (quarter-note quadruplets; four quarter notes to the beat), 1/4 x 5 (quarter-note quintuplets; five quarter notes to the beat), 1/4 x 6 (quarter-note sextuplets; six quarter notes to the beat), 1/4 x 7 (quarter-note septuplets; seven quarter notes to the beat), 1/4 x 8 (quarter-note octuplets; eight quarter notes to the beat)

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. If you first specify the maximum value and then the minimum value, for example "93 to 34," then the Velocity range covers both "1 to 34" and "93 to 127."

Settings: 1-127

Note Limit

Determines the lowest and highest notes of the keyboard range for each Element. Each Element will only sound for notes played within its specified range. If you first specify the highest note and then the lowest note, for example "C5 to C4," then the note range covers both "C-2 to C4" and "C5 to G8." **Settings:** C -2 – G8

Pitch/Key (Pitch Key Follow Sensitivity)

Determines the sensitivity of the Key Follow effect (the pitch interval of adjacent notes), assuming the pitch of the Center Key (below) as standard.

Settings: -200% - +0% - +200%

+100% (the normal setting): Adjacent notes are pitched one semitone apart.

0%: All notes have the same pitch as the Center Key.

Negative values: The settings are reversed.

Center Key (Pitch Key Follow Sensitivity Center Key)

Determines the central note or pitch for the Key Follow effect on pitch. **Settings:** C -2 – G8

Edit Waveform

Calls up the Waveform Edit display. From this display you can set parameters related to Key Banks consisting of the Waveform.

Key Bank

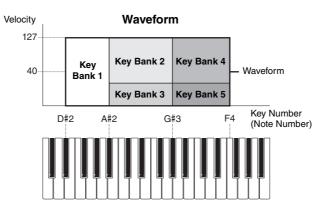
A Key Bank is digital audio data, made by directly recording a signal, such as that of vocals or electric guitar, to this instrument.

Throughout this manual, the words "Key Bank" and "Wave" are sometimes used interchangeably; however, you should be careful to distinguish between "Key Bank" (raw audio data) and "Waveform" (collected audio data used to make up a Part).

Key Bank and Waveform

Key Banks are assigned and stored to Waveforms on the MODX.

Each of the Waveforms can contain multiple Key Banks. To assign these Key Banks to a different space or container, you can set the note limit and velocity limit for each Key Bank. With this setting, the different Key Bank is played back depending on the pressed note and its velocity.



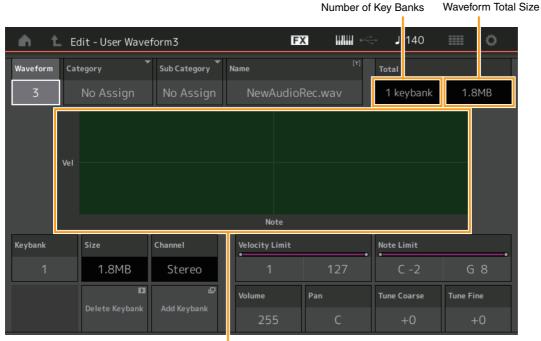
Normal Part (AWM2) Edit

Comn	
Pa	art Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
Ef	fect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
A	rpeggio
	Common
	Individual
	Advanced
M	otion Seq
	Common
	Lane
M	od / Control
	Part LFO
	Control Assign
	Receive SW
Eleme	ent
► O:	sc / Tune
Pi	tch EG
Fi	Iter
	Туре
	Filter EG
	Scale
Α	mplitude
	Level / Pan
	Amp EG
	Scale
EI	ement LFO
EI	ement EQ
All El	ement
0	SC
Ba	alance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	on/Audio

• Part and Waveform

You can play the Waveform by assigning it to a Part then playing the keyboard with that Part. You can assign the Waveform to an Element of the Part in the Element Edit for the Normal Part (AWM2) Edit (page 107) and the Key Edit for the Drum Part Edit (page 140).



Note Limit and Velocity Limit for each Key Bank

Waveform

Indicates the selected Waveform.

Category (Waveform Main Category) Sub Category (Waveform Sub Category)

Determines the Main category and the Sub category for the selected Waveform. **Settings:** See the Data List PDF document.

Name (Waveform Name)

Determines the selected Waveform. Waveform names can contain up to 20 characters. Touching the parameter calls up the input character display.

Number of Keybank (Number of Key Bank)

Indicates the number of Key Banks in the selected Waveform.

Waveform Total Size

Indicates the total data size of the selected Waveform.

Keybank (Key Bank)

Indicates the selected Key Bank.

Size (Key Bank Size)

Indicates the data size of the selected Key Bank.

Channel (Key Bank Channel)

Indicates the Channel (Stereo or Mono) of the selected Key Bank.

Velocity Limit

Determines the minimum and maximum values of the velocity range within which the selected Key Bank will respond. Settings: 1–127

Note Limit

Determines the lowest and highest notes of the keyboard range for the selected Key Bank. **Settings:** 1–127

Normal Part (AWM2) Edit

_		()
Co	omn	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	М	otion Seq
		Common
		Lane
	М	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	09	sc / Tune
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	El	ement LFO
	El	ement EQ
AI	l Ele	ement
	09	
	Ba	alance

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	nal Part (FM-X) Comm	non/Audio
Volume Determines the of Settings: 0-255	output volume of the sele	ected Key Bank.			Normal Part (AWM2) Edit Common
Pan Determines the s Settings: L63-C-R	stereo pan position of the 763	e selected Key Bank.			Part Settings General Pitch Zone Settings
Tune Coarse (Determines the p Settings: -64 - +63	pitch of the selected Key	/ Bank in semitones.			Zone Transmit Effect Routing
Tune Fine (Fin Determines the f Settings: -64 – +63	fine tuning for the pitch o	of the selected Key Bank	κ.		Ins A Ins B EQ
Deletes the selec	nk (Delete Key Bank) cted Key Bank. (Add Key Bank)				Ins Assign Arpeggio Common Individual
Adds new Key B	Bank to the selected Wav	'eform.			Advanced Motion Seq Common
Pitch EG					Lane
the pitch of the s	sound changes over time t a note is pressed on the	e all time and level setting e for Oscillators. These c ne keyboard to the mome	can be used to control t ent the sound stops.	the change in pitch	Mod / Control Part LFO Control Assign Receive SW
	PERFORMANCE (HOME)	\rightarrow [EDIT] \rightarrow Part selection	→ Element selection → [H	Pitch EG]	Element
Operation [F	Edit - Part1 - Element1	FX	J 140		 Osc / Tune Pitch EG

0

Element	Time/Vel	Segment	PEG Depth	Depth/VeI	Curve	
Element	+0	All	+20	+0	2	

Hold

The full names of the available parameters are shown in the chart below, as they appear in the display.

	Hold	Attack	Decay1	Decay2	Release
Time	Hold Time	Attack Time	Decay1 Time	Decay2 Time	Release Time
Level	Hold Level	Attack Level	Decay1 Level	Decay2 Level	Release Level

Settings: Time: 0–127 Level: -128 – +127 Amplitude

All Element Osc Balance

Copy or Exchange

Elements

Level / Pan Amp EG Scale Element LFO Element EQ

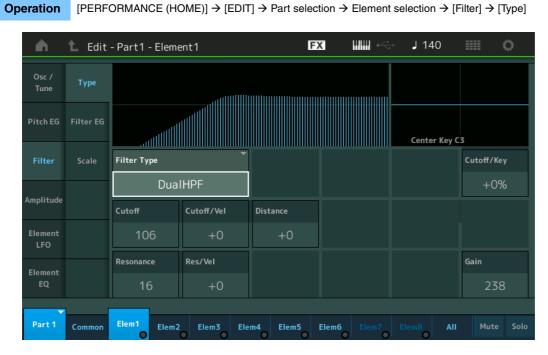
eference	Performance	Edit	Search	Utili	ty	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Corr	nmon/Audio
		L				
Time/Key (PEG T	ime Key Follow S	ensitivity)				Normal Part (AWM2) Edit
Determines the deg	ree to which the note	s (specifically, their pos			EG	Common
	ey (next parameter) i	s used as the basic pito	h for this param	eter.		Part Settings
Settings: -64 - +63	uce: High potos result in	a high PEG transition speed	l while low potos ros	ult in a clow anood		General
		n a slow PEG transition speed				Pitch
-		t change, regardless of the p				Zone Settings
Contor Koy (DEC	Time Key Fellow	Sensitivity Center K	o v)			Zone Transmit
• •	-	(speed) responds to Vel	• ·	renath with which the	e kev	Effect
		played, the PEG behav			,,	Routing
Settings: C-2-G8						Ins A
Time/Vel (PFG Ti	me Velocity Sensi	itivity)				Ins B
•	me Velocity Sens	• •				EQ
	-	PEG's Time parameters	. Select the Sear	ment, and then set its	6	Ins Assign
"Time/Vel" paramete		·	Ū.			Arpeggio
Settings: Time/Vel: -64						Common
		ult in a fast PEG transition sp				Individual
•	0	ult in a slow PEG transition s change, regardless of the V		ocities result in a fast spe	ea.	
		ecay), Decay, Atk+Rls (Attac				Advanced
Attack: Time	/Vel parameter affects A	ttack Time.				Motion Seq
-	me/Vel Value affects Atta					Common
•	Vel parameter affects D ne/Vel Value affects Attac					Lane
	affects all PEG Time par					Mod / Control
						Part LFO
PEG Depth						Control Assign
	n range for Pitch EG.					Receive SW
Settings: -64 – +63						Element
Depth/Vel (PEG D	Pepth Velocity Ser	nsitivity)				Osc / Tune
Curve (PEG Dept	h Velocity Sensiti	vity Curve)				Pitch EG
		enerated according to t			play	Filter
		neter lets you select fron t determine how velocity				Туре
		ates Pitch Change and t				Filter EG
Settings: Depth/Vel: -6				·) .		Scale
		se the pitch range to expand				Amplitude
-		use the pitch range to contra		s cause it to expand.		Level / Pan
Settings: Curve: 0–4	erivelope does not chang	ge, regardless of the Velocity				Amp EG
0	1	2	3	4		Scale
			Ĭ			Element LFO
						Element EQ
						All Element
NOTE For details on I	PEG, see the Synthesiz	er Parameter Manual PDF	document.			Osc
	,					Balance
						Datalice

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part No	ormal Part (FM-X) Commo	on/Audio

Filter

Туре

From the Type display you can make comprehensive settings for the Filter unit. The available parameters differ depending on which Filter type is selected here.

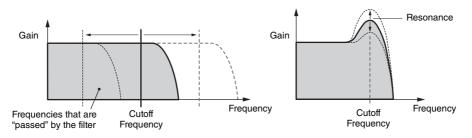


Filter Type

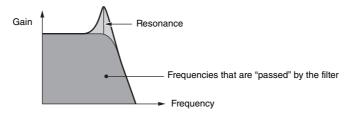
Determines the Filter Type for the current Element. Basically, there are four different filters: LPF (Low Pass Filter), HPF (High Pass Filter), BPF (Band Pass Filter) and BEF (Band Elimination Filter). For details on settings, see the Synthesizer Parameter Manual PDF document.

Settings: LPF24D, LPF24A, LPF18, LPF18s, LPF12+HPF12, LPF6+HPF12, HPF24D, HPF12, BPF12D, BPFw, BPF6, BEF12, BEF6, DualLPF, DualHPF, DualBPF, DualBEF, LPF12+BPF6, Thru

LPF



LPF24D: A dynamic -24 dB/oct Low-Pass Filter with a characteristic digital sound. Compared to the LPF24A type, this filter can produce a more pronounced Resonance effect.

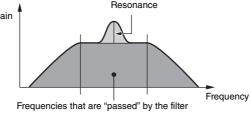


LPF24A: A digital dynamic Low-Pass Filter with characteristics similar to a 4-pole analog synthesizer filter. LPF18: 3-pole -18 dB/oct Low-Pass Filter.

LPF18s: 3-pole -18 dB/oct Low-Pass Filter. This filter has a smoother cutoff slope than the LPF18 type.

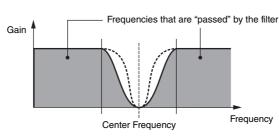
Normal Part (AWM2) Edit				
Cor	nmon			
	Part Settings			
_	General			
	Pitch			
	Zone Settings			
	Zone Transmit			
_	Effect			
	Routing			
	Ins A			
	Ins B			
	EQ			
	Ins Assign			
_	Arpeggio			
	Common			
	Individual			
_	Advanced			
_	Notion Seq			
	Common			
_	Lane			
_	Mod / Control			
	Part LFO			
	Control Assign			
	Receive SW			
	nent			
_	Osc / Tune			
_	Pitch EG			
	Filter			
	Туре			
	Filter EG			
_	Scale			
_	Amplitude			
	Level / Pan			
	Amp EG Scale			
_	Element LFO			
_	Element EQ			
	Element			
	Osc			
-	Balance			
	Salance			

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norr	mal Part (FM-X) C	ommon/Audio
HPF		· ·			Normal Part (AWM2) Edit
	Ga	ain Resonance	requencies that are "passed"	" by the filter	Common
					Part Settings
					General
					Pitch
			Frequency		Zone Settings
		Cutoff Frequency	У		Zone Transmit
	IPF12: A combination of a -12			ilter connected in serial.	Effect
	Filter Type is selected, HPF (·	Routing
	PF12: A combination of a -6 d Filter Type is selected, HPF (ter connected in serial.	Ins A
HPF24D:	A dynamic -24 dB/oct High-F		-	er can produce a	Ins B
pronounce	ed Resonance effect.				EQ
	(Gain Res	sonance		Ins Assign
			-		Arpeggio
					Common
		•	Frequencies that by the filter	are "passed"	Individual
			Frequency		Advanced
					Motion Seq
HPF12: -1	12 dB/oct dynamic High-Pass	s Filter.			Common
BPF					Lane
	Gain	Frequencies that are	"passed" by the filter		Mod / Control
					Part LFO
					Control Assign
					Receive SW
					Element
		Center Frequency	Frequency		Osc / Tune
BPF12D.	The combination of a -12 dB,	Voot HPE and LPE with a ch:	prostoristic digital sound		Pitch EG
511122.		Resonance			Filter
	Gain				▶ Туре
					Filter EG
			X		Scale
					Amplitude
		· · · · · · · · · · · · · · · · · · ·	Frequency		Level / Pan
	Frequ	uencies that are "passed" by the	e filter		Amp EG
BPFw: A	-12 dB/oct BPF that combine	es HPF and LPF filters to allo	w wider bandwidth setting	gs.	Scale
	Gain				Element LFO
					Element EQ
		Width			All Element
					Osc
	Frequ	uencies that are "passed" by the	Frequency e filter		Balance
BPF6: The	e combination of a -6 dB/oct	. HPF and LPF.			
	Gain	Resonance			Copy or Exchange
	Gain				Elements



Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

BEF

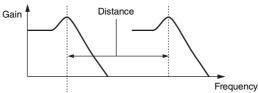


Normal Part (AWM2) Edit

Pa	rt Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
Ef	fect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
Ar	peggio
	Common
	Individual
	Advanced
M	otion Seq
	Common
	Lane
M	od / Control
	Part LFO
	Control Assign
	Receive SW
eme	ent
0	sc / Tune
Pi	tch EG
Fil	ter
	Туре
	Filter EG
	Scale
Ar	nplitude
	Level / Pan
	Amp EG
	Scale
El	ement LFO
El	ement EQ
II Ele	ement
0:	SC .
Ba	alance

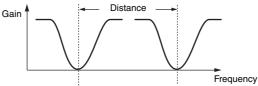
BEF12: -12 dB/oct Band-Eliminate Filter. **BEF6:** -6 dB/oct Band-Eliminate Filter.

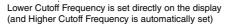
DualLPF: Two -12 dB/oct Low-Pass Filters connected in parallel. You can edit the distance between the two Cutoff Frequencies.



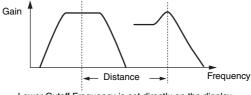
Lower Cutoff Frequency is set directly on the display (and Higher Cutoff Frequency is automatically set)

DualHPF: Two -12 dB/oct High-Pass Filters connected in parallel. **DualBPF:** Two -6 dB/oct Band-Pass Filters connected in parallel. **DualBEF:** Two -6 dB/oct Band-Eliminate Filters connected in serial.





LPF12+BPF6: A combination of a -12 dB/oct Low-Pass Filter and a -6 dB/oct Band-Pass Filter connected in parallel. You can edit the distance between the two Cutoff Frequencies.



Lower Cutoff Frequency is set directly on the display (and Higher Cutoff Frequency is automatically set)

Cutoff (Cutoff Frequency)

Determines the cutoff frequency for the Filter. This is used as the basic frequency for the selected Filter Type.

Settings: 0-255

Cutoff/Vel (Cutoff Velocity Sensitivity)

Determines how the Cutoff Frequency responds to Velocity, or the strength with which you play notes. **Settings:** -64 - +63

Positive values: The more strongly you play the keyboard, the more the Cutoff Frequency rises. **Negative values:** The more softly you play the keyboard, the more the Cutoff Frequency rises. **0:** The Cutoff Frequency does not change, regardless of the Velocity.

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Resonance

Width

This parameter's function varies according to the selected Filter Type. If the selected filter is an LPF, HPF, BPF (excluding BPFw), or BEF, this parameter is used to set the Resonance. For the BPFw, it is used to adjust the frequency bandwidth. This parameter 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" parameter to add further character to the sound. For the BPFw, this parameter is used to adjust the width of the band of signal frequencies passed by the filter.

This parameter is not displayed depending on the selected Filter Types. **Settings:** 0–127

Cutoff/Key (Cutoff Key Follow Sensitivity)

Determines the degree to which the notes (specifically, their position or octave range) affect the Cutoff Frequency (above). The Center Key (next parameter) is used as the basic Cutoff Frequency for this parameter.

Settings: - 200% - +200%

Positive values: The Cutoff Frequency drops for lower notes and rises for higher notes. **Negative values:** The Cutoff Frequency rises for lower notes and drops for higher notes.

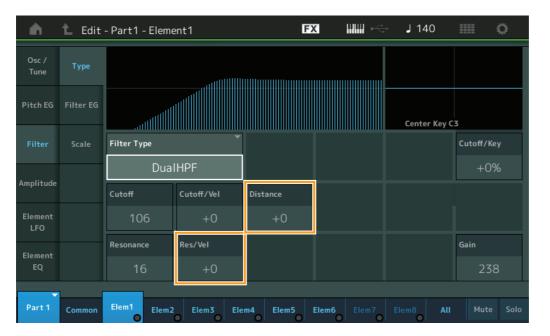
Center Key (Cutoff Key Follow Sensitivity Center Key)

This indicates that the central note for "Cutoff/Key" above is C3. Keep in mind that this is for display purposes only; the value cannot be changed.

Gain

Sets the Gain (the amount of boost applied to the signal sent to the Filter Unit).

■ In case of the Filter Type with "Distance" and "Res/Vel" parameters



Distance

Determines the distance between the Cutoff Frequencies for the Dual Filter types and the LPF12+BPF6 filter. This parameter is not displayed depending on the selected Filter Type. **Settings:** -128 - +127

Res/Vel (Resonance Velocity Sensitivity)

Determines the degree to which Resonance responds to Velocity, or the strength with which you play notes. This parameter is not displayed depending on the selected Filter Type.

Settings: -64 - +63

Positive values: The higher the Velocity, the greater the Resonance. **Negative values:** The lower the Velocity, the greater the Resonance.

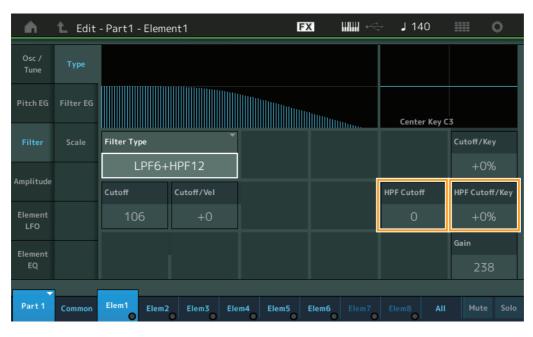
0: No change of the Resonance value.

Normal Part (AWM2) Edit

		·				
Co	omm					
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Effect					
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Mo	otion Seq				
		Common				
		Lane				
	Mo	od / Control				
		Part LFO				
		Control Assign				
		Receive SW				
Ele	eme	nt				
	Os	sc / Tune				
	Pit	ch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	An	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	Ele	ement LFO				
	Ele	ement EQ				
AI	l Ele	ement				
	Os	iC				
	Ba	lance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	l Part (FM-X) Commo	n/Audio

■ In case of the Filter Type with "HPF Cutoff" and "HPF Cutoff/Key" parameters



HPF Cutoff (High Pass Filter Cutoff Frequency)

Determines the central frequency for the Key Follow parameter (below) of the HPF. This parameter is available only when one of the filter types "LPF12+HPF12" or "LPF6+HPF12" is selected. **Settings:** 0–255

HPF Cutoff/Key (High Pass Filter Cutoff Key Follow Sensitivity)

Determines the degree to which the notes (specifically, their position or Octave Range) affect the Cutoff Frequency of the HPF. This parameter is available only when one of the filter types "LPF12+HPF12" or "LPF6+HPF12" is selected.

Settings: -200% - +200%

Positive values: The Cutoff Frequency drops for lower notes and rises for higher notes. **Negative values:** The Cutoff Frequency rises for lower notes and drops for higher notes.

Normal Part (AWM2) Edit

Common						
	Part Settings					
	General					
	Pitch					
	Zone Settings					
	Zone Transmit					
_	Effect					
	Routing					
	Ins A					
	Ins B					
	EQ					
	Ins Assign					
	Arpeggio					
	Common					
	Individual					
	Advanced					
	Notion Seq					
	Common					
	Lane					
	Mod / Control					
	Part LFO					
	Control Assign					
	Receive SW					
Eler	nent					
	Osc / Tune					
_	Pitch EG					
_	Filter					
J	Туре					
	Filter EG					
	Scale					
	Amplitude					
	Level / Pan					
	Amp EG					
	Scale					
I	Element LFO					
I	Element EQ					
All E	Element					
(Osc					
I	Balance					

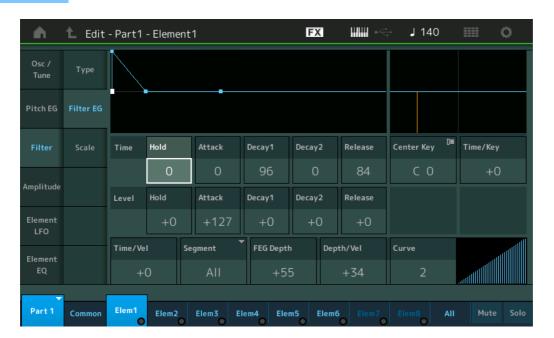
Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio

Filter EG

Operation

From the Filter EG display you can make all time and level settings for the Filter EG, which determine how the sound changes over time for Elements. These can be used to control the change the sound from the moment a note is pressed on the keyboard to the moment the sound stops.

 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Filter] \rightarrow [Filter EG]$



The full names of the available parameters are shown in the chart below, as they appear in the display.

	Hold	Attack	Decay1	Decay2	Release
Time	Hold Time	Attack Time	Decay1 Time	Decay2 Time	Release Time
Level	Hold Level	Attack Level	Decay1 Level	Decay2 Level	Release Level

Settings: Time: 0-127

Level: -128 – +127

Time/Key (FEG Time Key Follow Sensitivity)

Determines the degree to which the notes (specifically, their position or octave range) affect the Filter EG Times. The basic speed of change for the FEG is at the note specified in Center Key (below).

Settings: -64 - +63

Positive values: High notes result in a high FEG transition speed while low notes result in a slow speed.Negative values: High notes result in a slow FEG transition speed while low notes result in a high speed.0: The FEG transition speed does not change, regardless of the played note.

Center Key (FEG Time Key Follow Sensitivity Center Key)

Determines the central note for the "Time/Key" parameter above. **Settings:** C-2–G8

Normal Part (AWM2) Edit

Nor	mal	Part (AWM2) Edit				
Co	omn	hon				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Effect					
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Mo	otion Seq				
		Common				
		Lane				
	Mo	od / Control				
		Part LFO				
		Control Assign				
		Receive SW				
El	eme	ent				
	05	sc / Tune				
	Pit	tch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	An	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	Ele	ement LFO				
	Ele	ement EQ				
AI	l Ele	ement				
	05	6C				
	Ba	lance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	Part (FM-X) Commo	n/Audio

Normal Part (AWM2) Edit

Time/Vel (FEG Time Velocity Sensitivity)	Normal Part (AWM2) Edit
Segment (FEG Time Velocity Sensitivity Segment)	Common
Determines how the FEG transition time (speed) responds to Velocity, or the strength with which the key is	Part Settings
pressed. Select the "Segment," and then set its "Time/Vel" parameter.	General
Settings: Time/Vel: -64 - +63	
Positive values: High Velocities result in a fast FEG transition speed while low Velocities result in a slow speed.	Pitch
Negative values: High Velocities result in a slow FEG transition speed while low Velocities result in a fast speed. 0: The pitch transition speed does not change, regardless of the Velocity.	Zone Settings
Settings: Segment: Attack, Atk+Dcy (Attack+Decay), Decay, Atk+RIs (Attack+Release), All	Zone Transmit
Attack: Time/Vel parameter affects Attack time.	Effect
Atk+Dcy: Time/Vel Value affects Attack/Decay1 time.	Routing
Decay: Time/Vel parameter affects Decay Time.	Ins A
Atk+RIs: Time/Vel Value affects Attack/Release time.	Ins B
All: Time/Vel affects all FEG Time parameters.	EQ
FEG Depth	
Determines the Cutoff Frequency range for Filter EG.	Ins Assign
Settings: -64 – +63	Arpeggio
5eunigs. -04 – +05	Common
Depth/Vel (FEG Depth Velocity Sensitivity)	Individual
Curve (FEG Depth Velocity Sensitivity Curve)	Advanced
Determines how the range of the Cutoff Frequency responds to Velocity (strength) with which you play	Motion Seg
notes on the keyboard. The Curve parameter lets you select from five different preset velocity curves	Common
(graphically indicated in the display) that determine how velocity affects the Filter EG Depth. In the	
illustrations below, the vertical axis indicates Cutoff Frequency Change and the horizontal axis indicates Velocity.	Lane
Settings: Depth/Vel: -64 – +63	Mod / Control
Settings: Curve: 0–4	Part LFO
0 1 2 3 4	Control Assign
	Receive SW
	Element
	Osc / Tune
NOTE For details on FEG, see the Synthesizer Parameter Manual PDF document.	Pitch EG
	Filter
	Туре
	Filter EG
	Scale
	Amplitude
	Level / Pan
	Amp EG

Copy or Exchange Elements

All Element Osc Balance

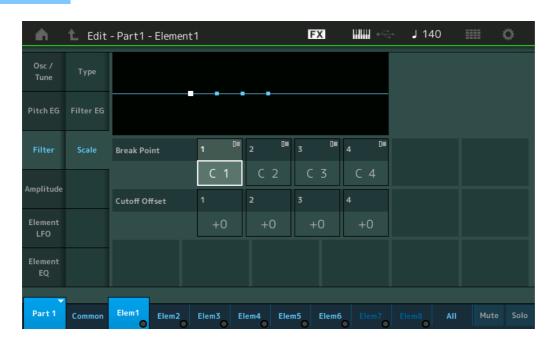
Scale Element LFO Element EQ

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Scale (Filter Scale)

From the Filter Scale display you can set parameters related to Filter Scale for Elements. "Filter Scale" controls the Filter Cutoff Frequency according to the positions of the notes on the keyboard.

Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Filter] \rightarrow [Scale]



Break Point 1-4

Determines the four Break Points by specifying the respective note numbers.

Settings: C -2 - G8

NOTE Break Points 1 to 4 will be automatically be arranged in ascending order across the keyboard.

Cutoff Offset 1-4

Determines the offset value to the Cutoff Frequency at each Break Point.

Settings: -128 - +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.

NOTE For information on setting examples for Filter Scaling, see the Synthesizer Parameter Manual PDF document.

Normal Part (AWM2) Edit

INUI	ma	Fait (Avviviz) Eult					
Co	omn	non					
	Pa	rt Settings					
		General					
		Pitch					
		Zone Settings					
		Zone Transmit					
	Effect						
		Routing					
		Ins A					
		Ins B					
		EQ					
		Ins Assign					
	Ar	peggio					
		Common					
		Individual					
		Advanced					
	Mo	otion Seq					
		Common					
		Lane					
	Mo	od / Control					
		Part LFO					
		Control Assign					
		Receive SW					
Ele	eme	ent					
	09	sc / Tune					
	Pi	tch EG					
	Fil	ter					
		Туре					
		Filter EG					
		Scale					
	Ar	nplitude					
		Level / Pan					
		Amp EG					
		Scale					
	El	ement LFO					
	El	ement EQ					
All	Ele	ement					
	09	SC					
	Ba	alance					

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	l Part (FM-X) Commo	n/Audio

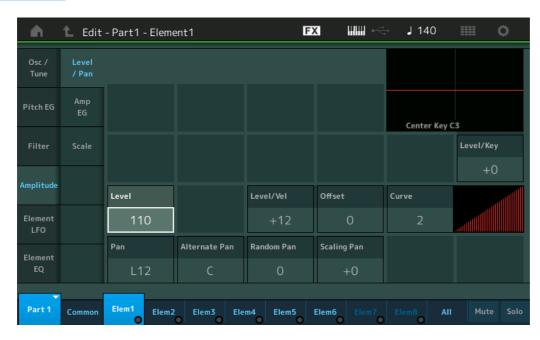
Amplitude

Level/Pan

From the Level/Pan display you can make Level and Pan settings for each individual Element.



 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \ \mathsf{selection} \rightarrow \mathsf{Element} \ \mathsf{selection} \rightarrow [\mathsf{Amplitude}] \rightarrow [\mathsf{Level/Pan}]$



Level

Determines the output level of the Element. **Settings:** 0–127

Level/Vel (Level Velocity Sensitivity) Offset (Level Velocity Sensitivity Offset) Curve (Level Velocity Sensitivity Curve)

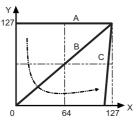
Determines how the actual Velocity will be generated according to the Velocity (strength) with which you play notes on the keyboard. The Offset parameter raises or lowers the level specified by the "Level/Vel." If the result is higher than 127, the velocity is set to 127. The Curve parameter lets you select from five different preset velocity curves (graphically indicated in the display) that determine how velocity affects the actual Velocity. In the illustrations below, the vertical axis indicates the actual resulting Velocity and the horizontal axis indicates Velocity with which you play notes.

Settings: Level/Vel: -64 - +63

Positive values: The more strongly you play the keyboard, the more the output rises. **Negative values:** The more softly you play the keyboard, the more the output rises. **0:** The output level does not change.

Settings: Offset: 0-127

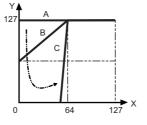
Level Velocity Sensitivity Offset = 0



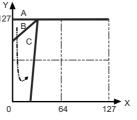
- A: Level Velocity Sensitivity = 0
- B: Level Velocity Sensitivity = 32
- C: Level Velocity Sensitivity = 64
- X: Velocity with which you play a note

Y: Actual resulting velocity (affecting the tone generator)

Level Velocity Sensitivity Offset = 64







Copy or Exchange Elements

Normal Part (AWM2) Edit

Part Settings

General Pitch

Routing

Ins Assign

Common

Individual Advanced

Ins A Ins B

EQ

Arpeggio

Motion Seq Common

Lane

Mod / Control

Osc / Tune

Туре

Scale

Amplitude

Filter EG

Level / Pan

Amp EG

Scale

Element LFO

Element EQ

All Element

Osc

Balance

Pitch EG

Filter

Element

Part LFO Control Assign

Receive SW

Zone Settings

Zone Transmit

Common

Effect

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	l Part (FM-X) Co	ommon/Audio
Settings: Curve: 0-	-4				Normal Part (AWM2) Edit
0		2	3	4	Common
					Part Settings General
Den (Floment	Dem)				Pitch
Pan (Element	Pan)	I			Zone Settings

Determines the stereo Pan position for the selected Element. Settings: L63-C (center)-R63

Alternate Pan

Determines the amount by which the sound is panned alternately left and right for each note you press. The Pan setting (above) is used as the basic Pan position. Settings: L64-C-R63

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

Scaling Pan

Determines the degree to which the notes (specifically, their position or octave range) affect the Pan position, left and right, of the selected Element. At note C3, the main Pan setting (above) is used for the basic Pan position.

Settings: -64 - +0 - +63

Positive values: Moves the pan position to the left for lower notes and to the right for higher notes. Negative values: Moves the pan position to the right for lower notes and to the left for higher notes.

Level/Key (Level Key Follow Sensitivity)

Determines the degree to which the notes (specifically, their position or octave range) affect the volume of the selected Element. A Center Key setting of C3 is used as the basic setting.

Settings: -64 - +0 - +63

Positive values: Lowers the output level for lower notes and raises it for higher notes. Negative values: Raises the output level for lower notes and lowers it for higher notes.

Center Key (Level Key Follow Sensitivity Center Key)

This indicates that the central note for "Level/Key" above is C3. Keep in mind that this is for display purposes only; the value cannot be changed.

Ins A Ins B

Effect

EQ Ins Assign Arpeggio Common Individual

Zone Transmit

Routing

Advanced

Motion Seq

Common

Lane

Mod / Control

Part LFO

Control Assign

Receive SW Element

Osc / Tune

Pitch EG Filter

Filter EG Scale Amplitude Level / Pan

Туре

Amp EG Scale **Element LFO**

Element EQ

All Element

Osc Balance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Common	n/Audio

Amp EG (Amplitude EG)

From the Amplitude EG display you can make all the time and level settings for the Amplitude EG, which determine how the volume of the sound changes over time. Using the AEG, you can control the transition in volume from the moment the sound starts is to the moment the sound stops.

Operation

 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection → [Amplitude] \rightarrow [Amp EG]$



The full names of the available parameters are shown in the chart below, as they appear in the display.

	Initial	Attack	Decay1	Decay2	Release
Time	-	Attack Time	Decay1 Time	Decay2 Time	Release Time
Level	Initial Level	Attack Level	Decay1 Level	Decay2 Level	-

Settings: Time: 0–127

Level: 0–127

Time/Key (AEG Time Key Follow Sensitivity)

Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. The Center Key parameter (below) is used as the basic amplitude for this parameter. **Settings:** -64 - +63

Positive values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed.Negative values: High notes result in a slow Amplitude EG transition speed while low notes result in a fast speed.0: The Amplitude EG transition speed does not change, regardless of the played note.

Center Key (AEG Time Key Follow Sensitivity Center Key)

Determines the central note for the "Time/Key" parameter above. When the Center Key note is played, the AEG behaves according to its actual settings.

Settings: C-2-G8

Release Adj (AEG Time Key Follow Sensitivity Center Key Release Adjustment)

Determines the sensitivity of AEG Time Key Follow Sensitivity to AEG Release. The lower the value, the lower the sensitivity.

Settings: 0-127

127: Sets the AEG Time Key Follow Sensitivity to the value of Decay 1 or Decay 2.

0: Produces no effect in the AEG Time Key Follow Sensitivity.

Normal	Part	(AWM2)	Edit

Norma	l Part (AWM2) Edit
Comr	non
Pa	art Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
Ef	ffect
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
Α	rpeggio
	Common
	Individual
	Advanced
Μ	otion Seq
	Common
	Lane
Μ	od / Control
	Part LFO
	Control Assign
	Receive SW
Elem	ent
0	sc / Tune
Pi	tch EG
Fi	Iter
	Туре
	Filter EG
	Scale
Α	mplitude
	Level / Pan
	Amp EG
	Scale
E	ement LFO
	ement EQ
All El	ement
0	sc
B	alance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio

Time/Vel (AEG Time Velocity Sensitivity) Segment (AEG Time Velocity Sensitivity Segment)

Determines how the AEG transition time (speed) responds to Velocity, or the strength with which the key is pressed. Select the "Segment," and then set its "Time/Vel" parameter. **Settings:** Time/Vel: -64 – +63

Positive values: High Velocities result in a fast AEG transition speed while low Velocities result in a slow speed.Negative values: High Velocities result in a slow AEG transition speed while low Velocities result in a fast speed.0: The amplitude transition speed does not change, regardless of the Velocity.

Settings: Segment: Attack, Atk+Dcy (Attack+Decay), Decay, Atk+Rls (Attack+Release), All Attack: Time/Vel parameter affects Attack Time.

Atk+Dcy: Time/Vel Value affects Attack/Decay1 Time.

Decay: Time/Vel parameter affects Decay Time.

Atk+RIs: Time/Vel Value affects Attack/Release Time.

All: Time/Vel affects all AEG Time parameters.

Half Damper (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: off, on

Time (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 turned on. This is not available when the Half Damper Switch is set to off.

Settings: 0-127

NOTE For details on AEG, see the Synthesizer Parameter Manual PDF document.

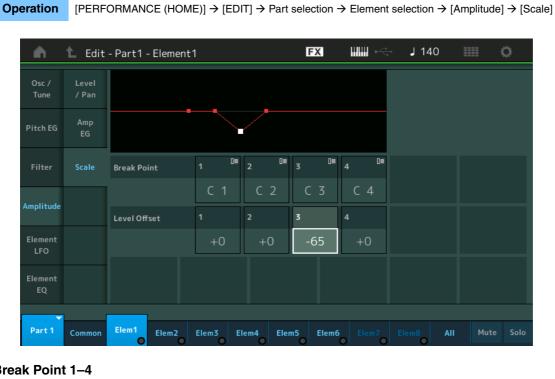
Normal Part (AWM2) Edit

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		Pitch
		Zone Settings
		Zone Transmit
	Eff	ect
		Routing
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		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Мс	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	nt
	Os	sc / Tune
	Pit	ch EG
	Fil	ter
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		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
All	l Ele	ement
	Os	SC .
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/Audio

Scale (Amplitude Scale)

From the Amplitude Scale display you can make Amplitude Scale settings for each Element. Amplitude Scale function controls the Amplitude output level according to the positions of the notes on the keyboard.



Break Point 1-4

Determines the four Amplitude Scale Break Points by specifying their respective note numbers. Settings: C -2 - G8

NOTE Break Points 1 to 4 will be automatically be arranged in ascending order across the keyboard.

Level Offset 1-4

Determines the offset value of the level of each Amplitude Scale Break Point.

Settings: -128 - +127

NOTE For details on setting examples of the Amplitude Scaling, see the Synthesizer Parameter Manual PDF document.

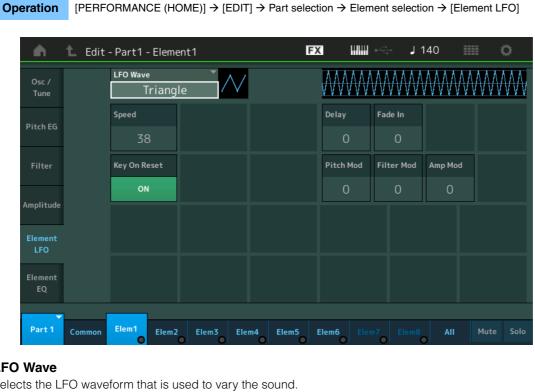
Normal Part (AWM2) Edit

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		rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	nt
	05	sc / Tune
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	El	ement LFO
	El	ement EQ
Al	l Ele	ement
	05	SC
	Ba	lance

Reference	Performance	Edit	Search	Utility		Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio	

Element LFO

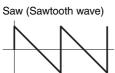
From the Element LFO display you can make LFO related setting for each Element. The Low-Frequency Oscillator (LFO) unit of the Element generates a low frequency signal. The signal from the LFO can be used to modulate the pitch, filter, and amplitude.

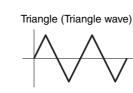


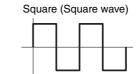
LFO Wave

Selects the LFO waveform that is used to vary the sound.

Settings: Saw, Triangle, Square





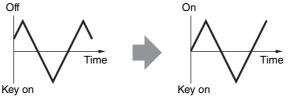


Speed (LFO Speed)

Adjusts the speed (frequency) of LFO variation. The larger the setting, the faster the speed. Settings: 0-63

Key On Reset (LFO Key On Reset)

Determines whether or not the LFO is reset each time a note is played. Settings: Off, On



Delay (LFO Delay Time)

Determines the delay time between the moment that a Note On message is received and the moment the LFO comes into effect. Settings: 0-127

Fade In (LFO Fade In Time)

Determines the amount of time for the LFO effect to fade in (after the "Delay" time has elapsed). Settings: 0-127

Normal Part (AWM2) Edit

Co	Common				
	Part Settings				
		General			
		Pitch			
		Zone Settings			
		Zone Transmit			
	Ef	iect			
		Routing			
		Ins A			
		Ins B			
		EQ			
		Ins Assign			
	Ar	peggio			
		Common			
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		Control Assign			
		Receive SW			
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		Filter EG			
		Scale			
	An	nplitude			
		Level / Pan			
		Amp EG			
		Scale			
	Ele	ement LFO			
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Al	Ele	ement			
	05	6C			
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Сору	or Exch	ange
Eleme	nts	

betermines the amount (depth) by which the LFO waveform varies (modulates) the pitch of the sound. Bettings: 0-127 Ther Mod (LFO Filter Modulation Depth) Determines the amount (depth) by which the LFO waveform varies (modulates) the Filter Cutoff frequency. Settings: 0-127 Theremet EQ Filter EQ Filt	erence	Performance	Edit	Search	Utility	Live Set
betermines the amount (depth) by which the LFO waveform varies (modulates) the pitch of the sound. Bettings: 0-127 Ther Mod (LFO Filter Modulation Depth) Determines the amount (depth) by which the LFO waveform varies (modulates) the Filter Cutoff frequency. Bettings: 0-127 There mount (depth) by which the LFO waveform varies (modulates) the amplitude or volume of he sound. Bettings: 0-127 Element EQ From the Element EQ display you can make EQ related settings for each Element. Operation [PERFORMANCE (HOME]] → [EDIT] → Part selection → [Element EQ] Motion Seq Common Individual Advanced Motion Seq Common Individual Advanced Motion Seq Common Individual Common Individual Advanced Motion Seq Common Individual Advanced Motion Seq Common Individual A			Normal Part (AWM	2) Drum Part No	ormal Part (FM-X) Co	ommon/Audio
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Pitch EG -12 -24 20 50 100 200 500 1k 2k 5k 10k 20k Control Assis Filter EQ Type EQ Low Gain EQ Hi Gain +0.00dB +0.00dB Element Osc / Tune Z-band +0.00dB EQ Low Freq EQ Hi Freq Osc / Tune Pitch EG Element 62.5Hz 7.40kHz Type Filter Filter Filter 62.5Hz 7.40kHz Filter Type Filter 62.5Hz 7.40kHz Filter Type Filter EQ Elemant Elemant Elemant Elemant Elemant EQ Elemant Elemant Elemant Elemant Elemant Elemant All Mute Solo Part 1 Common Elemant Elemant Elemant Elemant Elemant All Mute Solo Amplitude Elemant Elemant Elemant Elemant Amplitude Level / Pant Amp EG Elemant Elemant Elemant Elemant E	Operation [F	PERFORMANCE (HOME)] Edit - Part1 - Element1 +24	\rightarrow [EDIT] \rightarrow Part selection	ction \rightarrow Element selection \rightarrow		Common Individual Advanced Motion Seq Common
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Element EQ Low Freq EQ Hi Freq Element 62.5Hz 7.40kHz Filter Type Filter EG Scale Part 1 Common Elem1 Elem3 Elem4 Elem5 Elem5 Elem6 Elem7 Elem8 All Mute Solo Amp EG	Operation [F Osc / Tune Pitch EG	PERFORMANCE (HOME)]	→ [EDIT] → Part select F 50 100 200 EQ Low Gain	action \rightarrow Element selection \rightarrow EX I III \leftarrow J 140 500 1 k 2 k 5 k EQ Hi Gain		Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW
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LFO Element EQ Part 1 Common Elem 2 Elem 3 Elem 4 Elem 5 Elem 6 Elem 7 Elem 8 All Mute Solo Level / Pan Amp EG	Operation (F Osc / Tune Pitch EG Filter	PERFORMANCE (HOME)]	→ [EDIT] → Part select F 50 100 200 EQ Low Gain +0.00dB	action \rightarrow Element selection \rightarrow EX I II II II II II II II		Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune
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EQ Part 1 Common Elem1 Elem2 Elem3 Elem4 Elem5 Elem6 Elem7 Elem8 All Mute Solo Amplitude Level / Pan Amp EG	Operation (F Osc / Tune Pitch EG Filter Amplitude Element	PERFORMANCE (HOME)]	→ [EDIT] → Part select F 50 100 200 EQ Low Gain +0.00dB	action → Element selection → EX $H = 0$ J 140 500 1k 2k 5k EQ Hi Gain +0.00dB EQ Hi Freq		Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter
Part 1 Common Elem1 Elem2 Elem3 Elem4 Elem5 Elem6 Elem7 Elem8 All Mute Solo Amplitude Level / Pan Amp EG	Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO	PERFORMANCE (HOME)]	→ [EDIT] → Part select F 50 100 200 EQ Low Gain +0.00dB	action → Element selection → EX $H = 0$ J 140 500 1k 2k 5k EQ Hi Gain +0.00dB EQ Hi Freq		Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter Type
Part 1 Common Elem1 Elem2 Elem3 Elem4 Elem5 Elem6 Elem7 Elem8 All Mute Solo Amp EG	Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO	PERFORMANCE (HOME)]	→ [EDIT] → Part select F 50 100 200 EQ Low Gain +0.00dB	action → Element selection → EX $H = 0$ J 140 500 1k 2k 5k EQ Hi Gain +0.00dB EQ Hi Freq		CommonIndividualAdvancedMotion SeqCommonLaneMod / ControlPart LFOControl AssigReceive SWElementOsc / TunePitch EGFilterTypeFilter EG
Level / Pan Amp EG	Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO	PERFORMANCE (HOME)]	→ [EDIT] → Part select F 50 100 200 EQ Low Gain +0.00dB	action → Element selection → EX $H = 0$ J 140 500 1k 2k 5k EQ Hi Gain +0.00dB EQ Hi Freq		Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter Type Filter EG Scale
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	Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO Element	PERFORMANCE (HOME)]	→ [EDIT] → Part select 50 100 200 50 100 200 6Q Low Gain +0.00dB 400 EQ Low Freq 62.5Hz 400	action \rightarrow Element selection \rightarrow Element selection \rightarrow 140 500 1k 2k 5k EQ Hi Gain +0.00dB EQ Hi Freq 7.40kHz		Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter Type Filter EG Scale Amplitude Level / Pan

Settings: 2-band, P.EQ (Parametric EQ), Boost6 (boost 6dB), Boost12 (boost 12dB), Boost18 (boost 18dB), Thru2-band: This is a "shelving" equalizer, which combines separate high and low frequency bands.

P.EQ: The Parametric EQ is used to attenuate or boost signal levels (gain) around the Frequency. **Boost6, Boost12, Boost18:** These can be used to boost the level of the entire signal by 6dB, 12dB and 18dB, respectively

Thru: This setting bypasses the equalizers leaving the entire signal unaffected.

Copy or Exchange Elements

Element EQ

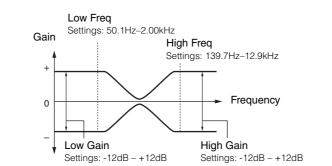
All Element

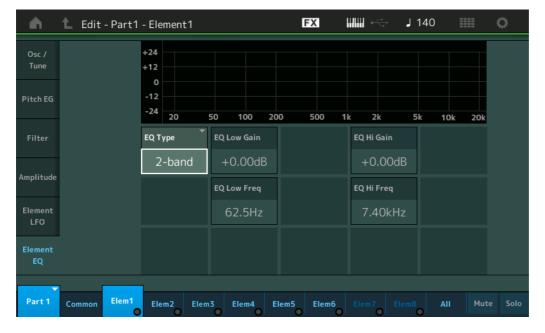
Osc

Balance

Reference	Performance	Edit	Search	Utility	Live Set	
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio	

■ When "EQ Type" is set to "2-band"





EQ Low Gain (Element EQ Low Gain)

Determines the level gain of the Low band. **Settings:** -12dB - +12dB

EQ Hi Gain (Element EQ High Gain)

Determines the level gain of the High band. **Settings:** -12dB - +12dB

EQ Low Freq (Element EQ Low Frequency)

Determines the frequency for the Low band. **Settings:** 50.1Hz–2.00kHz

EQ Hi Freq (Element EQ High Frequency)

Determines the frequency for the High band. **Settings:** 139.7Hz–12.9kHz

Ins A Ins B

Normal Part (AWM2) Edit

Part Settings

Pitch

Effect

General

Routing

Zone Settings

Zone Transmit

Common

	EQ			
	Ins Assign			
Arpeggio				
	Common			
	Individual			
	Advanced			
М	otion Seq			
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	Lane			
М	od / Control			

Part LFO Control Assign Receive SW Element Osc / Tune

Pitch EG					
Filter					
Туре					
	Filter EG				
	Scale				
Amplitude					
	Level / Pan				
	Amp EG				
	Scale				
Element LFO					

Element EQ
 All Element
 Osc

Balance

erence	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Com	mon/Audio
When "EQ ⁻	Type" is set to "P.E	Q"			Normal Part (AWM2)
		Gain			Common
		↓ Q			Part Settings
		+ Setting	ıs: 0.7–10.3		General
			► Frequency		Pitch
					Zone Settings
		-	Gain Settings: -12dB – +12dB		Zone Transmi
		♦ Freq			Effect
		Settings: 139.	7H–12.9kHz		Routing
					Ins A
n t	Edit - Part1 - Element1	FX	J 140	¢	Ins B
Osc /	+24				EQ
Tune	+12				Ins Assign
	0				Arpeggio
Pitch EG	-12				Common
	20	50 100 200 500	1k 2k 5k 10k	20k	Individual
Filter	EQ Type	EQ Gain			Advanced
	P.EQ	+0.00dB			Motion Seq
Amplitude		EQ Freq			Common
Element		1.02kHz			Lane
LFO		1.02KHZ			Mod / Control
Element		EQQ			Part LFO
EQ		0.7			Control Assig
					Receive SW
Part 1 Con	nmon Elem1 Elem2 El	em3 Elem4 Elem5 Elen	16 Elem7 Elem8 All	Mute Solo	Element
			0 0 0		Osc / Tune
•	ement EQ Gain)				Pitch EG
		quency set in "EQ Freq."			Filter
Settings: -12dl	3 – +12dB				Туре
EQ Freq (El	ement EQ Frequen	cy)			Filter EG
					Scale

Determines the frequency to be attenuated/boosted. **Settings:** 139.7Hz–12.9kHz

EQ Q (Element EQ Q)

This varies the signal level at the Frequency setting to create various frequency curve characteristics. **Settings:** 0.7–10.3

NOTE For details on EQ structure, see the Synthesizer Parameter Manual PDF document.

Scale

Level / Pan

Amp EG

Scale

Element LFO

Element EQ
All Element
Osc
Balance

Amplitude

Reference	Performance	Edit	Searc	ch	Utili	ty		L	ive Set	
		Normal Part (AWM2)	Drum Part		Normal Part (FM-X)		Common/A	Audio		

Element All (All Element)

Osc (Oscillator)

From the Oscillator display you can set Oscillator-related parameters for the eight Elements.

Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow [All] \rightarrow [Osc]

Osc								
	SW	XA Control 🔻	Group▼	Waveform 🛛	Velocit	y Limit	Note	Limit
alance	1	Normal	1	NewAudioRec.wav	1	127	C -2	G 8
_	2	A.SW Off	1	Grain3 St	1	127	C -2	G 8
	3	A.SW Off	1	Vocal Res	1	127	C -2	G 8
	4	Normal	1	Neo Seq Em All	1	127	C -2	Gε
	5	A.SW Off	1	JP Short Seq L	1	127	C -2	Gε
	6	A.SW2 On	1	Saturation	1	127	C -2	G٤
	7	Normal	1	JP Short Seq L	1	127	C -2	G٤
	8	Normal	1	Bubble	1	127	C -2	Gε

SW (Element Switch)

Determines whether each Element is active or not. **Settings:** Off, On

XA Control

Determines the functioning of the Expanded Articulation (XA) feature of an Element. The XA feature is sophisticated tone generator system that allows you to more effectively recreate realistic sound and natural performance techniques. It also provides other unique modes for random and alternate sound changes as you play. For details on the XA feature, see the "Tone Generator Block" in the "Basic Structure" on page 6.

Settings: Normal, Legato, Key Off, Cycle, Random, A.SW1 On (Assignable Switch 1 ON), A.SW2 On (Assignable Switch 2 ON), A.SW Off (Assignable Switch 1 OFF)

Normal: The Element sounds normally each time you play the note.

Legato: When the Mono/Poly parameter is set to Mono, this Element will be played in place of the one which is set to "Normal" of the XA Control parameter when you play the keyboard in legato fashion (playing the next note of a single-note line or melody before releasing the previous note).

Key Off: The Element will sound each time you release the note.

Cycle: Each Element sounds alternately according to its numerical order. In other words, playing the first note will sound Element 1, the second note Element 2, and so on.

Random: Each Element will sound randomly each time you play the note.

A.SW1 On: When the [ASSIGN 1] button is turned On, the Element will sound.

A.SW2 On: When the [ASSIGN 2] button is turned On, the Element will sound.

A.SW Off: When both of the [ASSIGN 1] and [ASSIGN 2] buttons are turned Off, the Element will sound.

Group (Element Group)

Determines the group for XA Control. All Elements that have the same type of XA features must have the same group number. This setting does not apply when the XA Control parameters of all Elements are set to Normal.

Settings: 1-8

Waveform (Waveform Name)

Indicates the Waveform Name for each Element. **Settings:** See the Data List PDF document.

Normal Part (AWM2) Edit

Cc	omn	non				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Effect					
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Mo	otion Seq				
		Common				
		Lane				
	Mo	od / Control				
		Part LFO				
		Control Assign				
		Receive SW				
Ele	eme	ent				
	05	sc / Tune				
	Pi	tch EG				
	Fil	ter				
		Туре				
		Filter EG				
		Scale				
	Ar	nplitude				
		Level / Pan				
		Amp EG				
		Scale				
	El	ement LFO				
	El	ement EQ				
All	Ele	ement				
▶	05					
	Ba	lance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	Il Part (FM-X) Commo	n/Audio

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. If you first specify the maximum value and then the minimum value, for example "93 to 34," then the Velocity range covers both "1 to 34" and "93 to 127."

Settings: 1-127

Note Limit

Determines the lowest and highest notes of the keyboard range for each Element. Each Element will only sound for notes played within its specified range. If you first specify the highest note and then the lowest note, for example "C5 to C4," then the note range covers both "C-2 to C4" and "C5 to G8." **Settings:** C - 2 - G8

Balance

Operation

From the Balance display you can set parameters related to Level, Pitch, and Pan for the eight Elements.

 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part selection} \rightarrow [\mathsf{All}] \rightarrow [\mathsf{Balance}]$

Osc						
Usc	SW	Coarse	Fine	Cutoff	Pan	Level
Balance	1	+0	+0	106	L12	110
_	2	+0	+0	106	R12	98
	3	-12	+0	104	С	98
	4	+0	+0	106	С	63
	5	+0	+0	106	С	127
	6	+0	+0	106	С	100
_	7	+0	+0	106	С	127
	8	+0	+0	106	С	113

SW (Element Switch)

Determines whether each Element is active or not. **Settings:** Off, On

Coarse (Coarse Tune)

Determines the pitch of each Element in semitones. **Settings:** -48 - +48

Fine (Fine Tune)

Determines the fine tuning for the pitch of each Element. **Settings:** -64 – +63

Cutoff (Cutoff Frequency)

Determines the Cutoff Frequency for each Element. **Settings:** 0–255

Pan (Element Pan)

Determines the stereo pan position for each Element. **Settings:** L63 (far left)–C (center)–R63 (far right)

Level

Determines the level of each Element. **Settings:** 0–127

Normal Part (AWM2) Edit

		, ,
Co	omn	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Мо	od / Control
		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	05	sc / Tune
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	El	ement EQ
Al	l Ele	ement
	05	50
	Ва	lance

Copy or	Exchange
Element	S

ference	Performance	Edit	Search	Normal Part (EM-X)	Common/Audio
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
- Opening or	E	4=			Normal Part (AWM2) Ed
	• Exchanging Elen exchange between Ele				Common
		inonite.			
Operation [P	ERFORMANCE (HOME)	$] \rightarrow [EDIT] \rightarrow Select Element$	nt to be copied \rightarrow [[SHIFT] + [EDIT]	Part Settings General
		- Euchopeo			Pitch
		Copy Exchange			
					Zone Settings
					Zone Transmit
					Effect
					Routing
		Copy Exchange			Ins A
					Ins B
					EQ
0	Part	Part			3 Ins Assign
		1	1		Arpeggio
					Common
0	Elemen	ht Eleme	int		4 Individual
		1	2		Advanced
					Motion Seq
					Common
	Cance		Сору		Lane
			copy		Mod / Control
					Part LFO
NOTE Conving or	exchanging between diff	erent Part types (for example	e between Elemer	nte and Operators) canno	
executed.	Stollanging Sources -		5, DOLWOON E.C		Receive SW
•					Element
Copy Touching this butt	top optivates the Copy	function between Eleme	onto		Osc / Tune
	Off activates the Copy		ints.		Pitch EG
Exchange					Filter
Touching this but	ton activates the Excha	ange function between E	lements		Туре
Part to be cr	opied (or exchange	лч)			Filter EG
		t automatically and this setti	ing cannot be char	naed	Scale
_		·		igou.	Amplitude
2 Element to I	be copied (or excha	inged)			Level / Pan
	change) destination	n Part			Amp EG
					Amp EG Scale
Copy (or exercise)	change) destination	n Element			
					Element LFO
					Element EQ
					All Element
					Osc
					Balance

Reference	Performance	Edit	Search	Utility	Live Set	
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	on/Audio	

Drum Part Edit

Each Drum Part can consist of up to 73 Drum Keys, assigned to notes spread across the keyboard (C0 to C6). There are two types of Drum Part Edit displays: Key Common Edit display, for editing the settings that apply to all Drum keys; and Key Edit display, for editing individual keys. This section explains the parameters for Key Common Edit and Key Edit.

Key Common Edit (Common)

Part Settings

General

Operation

 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Drum Key [Common] \rightarrow [Part Settings] \rightarrow [General]$

🖍 🖒 Edit - Part6 - Common 🛛 🕅 🕅 🕅 🕅 🗮 🔅												
Part Settings Part Category Main Part Category Sub Part Name [7] Drum/Perc Drums DRUM/PERC DRUM/PERC [7]									[T]			
Effect	Zone	Volume	Pan		Dr	y Level	VarSe	nd	RevSend		Part Out	put
Enect	Settings	112		С		127		0	0		Mainl	_&R
Arpeggio	Zone Transmit	Note Shift	Det	Detune		Pitch Bend ↓		Pitch Bend ↑				
Motion		+0	-	+0.0Hz		-12	+12					
Seq		Arp Play On	ly Eler	ment Pan								
Mod / Control		ON		ON								
		Velocity Lim	it		No	ote Limit			Velocity Offset		Velocity (Depth
		1		127		C -2	¢	58	64		64	ł
Part 6	Common	BD	SD H	IH Close	HH Peda	al HH Open	Low Tom	Hi Tom	Crash		Drum Key	

Part Category Main (Part Main Category) Part Category Sub (Part Sub Category)

Determines the Main category and the Sub category for the selected Part. **Settings:** See the Data List PDF document.

Part Name

Determines the Part name of the selected Part. Part names can contain up to 20 characters. Touching the parameter calls up the input character display.

Volume (Part Volume)

Determines the output level of the selected Part. **Settings:** 0–127

Pan

Determines the stereo pan position of the selected Part. **Settings:** L63–C–R63

Dry Level

Determines the dry sound level (not effect applied) of the selected Part. This is available only when "Part Output" is set to "MainL&R" or "Drum." **Settings:** 0–127

1	33	

Drum Part Edit

Co	omn	non
	Pa	rt Settings
		General
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Mo	od / Control
		Control Assign
		Receive SW
Ke	y	
	09	sc / Tune
	Fil	ter
	Le	vel / Pan
	Ele	ement EQ

Reference	Performance	Edit		Search		Utility		Live Set
		Normal Part (AWM2)	Dru	ım Part	Normal P	art (FM-X)	Common/Aud	oib
Var Send (Varia	ation Send) evel of the selected Part t	hat is sent to the Variat	ion eff	ect This is	available	only when "Par		Part Edit
	'MainL&R" or "Drum."				savanabie		Comm	non Irt Settings
Rev Send (Rev	erb Send)							General
Determines the le	evel of the selected Part t 'MainL&R" or "Drum."	hat is sent to the Reve	rb effe	ect. This is	available	only when "Par	t	Zone Settings Zone Transmit
Settings: 0–127							Ef	fect
								Routing
• •	art Output Select) n audio output is used fo	r the polooted Part						Ins A
	USB1&2USB7&8, USB1							Ins B
-	1: Outputs in stereo (two char		ONO]/[R] jacks.				EQ
	USB7&8: Outputs in stere		-	-	terminal.			Ins Assign
	JSB8: Outputs in mono (Cha		HOST]	terminal.			Ar	peggio
	udio signal for the Part is outp Frum Key Out" is displayed to		out for	oach Drum	Kov			Common
		determine the speeme out	put ioi	cacil Diulii	itoy.			Individual
Note Shift								Advanced
	itch (key transpose) sett	ing for each Part in ser	mitone	es.			Mo	otion Seq
Settings: -24 – +0 –	- +24							Common
Detune								Lane
	itch settings of the selec	ted Part in 0.1 Hz incre	ement	S.			Mo	od / Control
Settings: -12.8Hz -	+0.0Hz - +12.7Hz							Control Assign
Pitch Bend 个/	\downarrow (Pitch Bend Range	Upper/Lower)						Receive SW
	naximum Pitch Bend Rar						Key	
Settings: -48 - +0 -	- +24						05	sc / Tune
Arn Play Only	(Arpeggio Play Only)						Fil	ter
	her or not the current Par		vents o	of the Arpe	eggio plavt	back. When this	s Le	vel / Pan
	o on, only the note even							ement EQ

Element Pan (Element Pan Switch)

Determines whether the individual pan settings for each Key Part (made via [EDIT] \rightarrow Part selection \rightarrow Drum Key selection \rightarrow [Level/Pan] \rightarrow "Pan") are applied or not. When this is set to "off," the pan position for the each Key is set to center in the Part.

Settings: Off, On

Velocity Limit

Determines the minimum and maximum values of the velocity range within which each Part will respond. **Settings:** 1–127

Note Limit

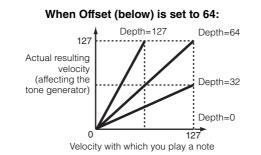
Determines the lowest and highest notes of the keyboard range for each Part. Settings: C - 2 - G8

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Commo	on/Audio

Velocity 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).

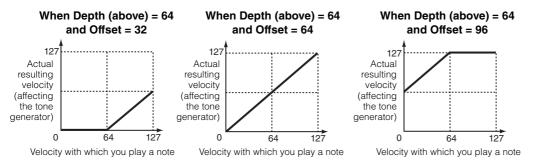
Settings: 0-127



Velocity Offset (Velocity Sensitivity Offset)

Determines the amount by which played velocities are adjusted for the actual resulting velocity effect. This lets you raise or lower all velocities based on this setting value—allowing you to automatically compensate for playing too strongly or too softly.

Settings: 0-127



Zone Settings

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 71).

Zone Transmit

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 73).

Drum Part Edit

ű	••••	
) c	omn	non
	Pa	rt Settings
		General
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Mo	od / Control
		Control Assign
		Receive SW
٢e	y	
	05	sc / Tune
	Fil	ter
	Le	vel / Pan
	El	ement EQ
_		

Copying or Exchanging Drum Keys

K

ference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Effect					— Drum Part Edit
Elleci					Common
					Part Settings
Routing					General
					Zone Settings
Operation [PI	ERFORMANCE (HOME)	$] \rightarrow [EDIT] \rightarrow Part selection -$	→ Drum Key [Com	$nmon] \rightarrow [Effect] \rightarrow [Routin]$	Dg] Zone Transmit
					Effect
Drum Key Cor	nnection Switch In	nsertion FX Switch			Routing
n ti	Edit - Par: 10 - Common	FX		130 🏢 🔅	Ins A
					Ins B
Part Rout	uting Drum Key			InsRev RevSend	EQ
Settings				64 10	Ins Assign
Effect Ins	CO	Category Type Misc VCM E	0 501		Arpeggio
	Keyboard Select	Preset		InsVar VarSend	Common
Arpeggio Ins		FI	lat	127 0	Individual
Arpeggio Ins	- 3-band			2-band Envelope	Advanced
Motion	InsA EQ	ON Ins A-	→B	EQ Follower	Motion Seq
Seq EC		B ON Side Chair		Part Output	Common
Mod / In	ns	0	off 7	→ MainL&R	Lane
	sign	Category Type Comp VCM Compr	pressor 376	Manteak	Mod / Control
		Preset			Control Assign
		Hard Ack	k + Boost		Receive SW
					Кеу
Part 10 Com	nmon BD SD HH	I Close HH Pedal HH Open Low To	Tom Hi Tom Crash	h Drum Key	Osc / Tune
					Filter
	Insertion FX S	witch			Level / Pan
					Element EQ

Determines which Insertion Effect (A or B) is used to process each individual Drum Key, and which is bypassed (Thru).

When the "Keyboard Select" is on, you can select Keys by playing the notes on the keyboard. **Settings:** Thru, InsA (Insertion Effect A), InsB (Insertion Effect B)

Insertion FX Switch

Determines whether or not Insertion Effect A / Insertion Effect B is active or not. **Settings:** Off, On

Category (Effect Category)

Type (Effect Type)

Determines the category and type for the selected effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations.

Settings: For a list of all Preset Performances, see the Data List PDF document.

Side Chain/Modulator (Side Chain/Modulator Part)

Determine the Part used for the Side Chain/Modulator. This is not available depending on the selected Effect Type. For details on the Side Chain/Modulator, see the Routing display (page 76) of the Normal Part (AWM2).

Settings: Part 1-16, A/D, Master, Off

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Determines the	t (Insertion Connection ne effect routing for Inserti lel, Ins A→B, Ins B→A				Drum Part Edit Common Part Settings
VarSend (V Determines th Reverb/Variat Settings: 0–12					General Zone Settings Zone Transmit Effect Routing
Determines th Settings: Main Mair USB USB Off:	 (Part Output Select) a specific output for the a a.&R, USB1&2USB7&8, USB L&R: Outputs in stereo (two c 1&2USB7&8: Outputs in stereo 1USB8: Outputs in mono (C No audio signal for the Part is construction aTorum Key Out" is displayed 	IUSB8, Off, Drum hannels) to the OUTPUT [L/M ereo (Channels 1&2–7&8) to t hannels 1–8) to the [USB TO putput.	he [USB TO HOST] ter HOST] terminal.		Ins A Ins B EQ Ins Assign Arpeggio Common Individual
	bllower Envelope Follower Setting outing display (page 76)	for Normal Parts (AWM2)			Advanced Motion Seq Common Lane Mod / Control
Part Settings	L Edit - Part6 - Common	→ A ON Category Type		0 IIII O InsRev RevSend 95 0	Control Assign Receive SW Key
Effect Arpeggio	Ins A Keyboard Select Ins B Connect 3-bai	Misc VCM Preset F	EQ 501	InsVar 64 0	Osc / Tune Filter Level / Pan Element EQ
Motion Seq Mod / Control	EQ Ins Assign	B ON Side Cha Category Type Comp VCM Com		Part Output ▼ MainL&R	Copying or Exchanging Drum Keys
		Preset Hard At	k + Boost		

InsRev (Insertion Reverb Send) InsVar (Insertion Variation Send)

Part 6 Common

Determines the Send level for the entire Drum Part (all keys), sent from Insertion Effect A/B to the Reverb/ Variation effect.

This is active only when the Drum Key Connection Switch is set to "InsA" or "InsB" and the Part Output/ Drum Key Output is set to "MainL&R."

Settings: 0-127

Reference	Performance	Edit	Sea		Search		Utility		Live Set	
		Normal Part (AWM2)		Drum Part		Normal Part (FM-	X)	Commor	n/Audio	



KeyRev (Drum Key Reverb Send) KeyVar (Drum Key Variation Send)

Determines the Send level for each Drum Key, sent from Insertion Effect A/B to the Reverb/Variation effect. This is active only when the Drum Key Connection Switch is set to "Thru" and the Part Output/Drum Key Output is set to "MainL&R." **Settings:** 0–127



Drum Key Out (Drum Key Output Select)

Determines the specific output for the individual Drum Key. This is displayed only when the Part Output is set to "Drum."

Settings: MainL&R, USB1&2...USB7&8, USB1...USB8

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks.

USB1&2...USB7&8: Outputs in stereo (Channels 1&2-7&8) to the [USB TO HOST] terminal.

USB1...USB8: Outputs in mono (Channels 1–8) to the [USB TO HOST] terminal.

NOTE When the Drum Key Connection Switch is set to "InsA" or "InsB," this parameter is fixed to "MainL&R."

	Part Settings					
		General				
		Zone Settings				
		Zone Transmit				
	Eff	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
		Ins Assign				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Мс	otion Seq				
		Common				
		Lane				
	Мс	od / Control				
		Control Assign				
		Receive SW				
Ke						
		sc / Tune				
		ter				
		vel / Pan				
	Ele	ement EQ				

Drum Part Edit

Common

Reference	Performance	Edit	Search	Utility	Live Set	
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio	

	Drum Part Edit		
Ins A (Insertion Effect A) Ins B (Insertion Effect B)	Common		
	Part Settings		
Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 77).	General		
EQ (Part Equalizer)	Zone Settings		
	Zone Transmit		
Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 78).	Effect		
	Routing		
Ins Assign (Insertion Assign)	Ins A		
Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 81).	Ins B		
	► EQ		
	Ins Assign		
Arpeggio	Arpeggio		
	Common		
Common	Individual		
	Advanced		
Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 82).	Motion Seq		
Individual	Common		
Individual	► Lane		
Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 85).	Mod / Control		
	Control Assign		
Advanced	Receive SW		
Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 87), except for the	Кеу		
additional parameter below.	Osc / Tune		
	Filter		
Fixed SD/BD	l evel / Pan		

When this parameter is set to On, C1 will be used as the note of the Bass Drum and D1 will be used as the note of the Snare Drum in Arpeggio playback. Settings: Off, On

Motion	Sea	(Motion	Sequencer)
	UUU	(101011011	ocquerioer,

Common

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 88).

Lane

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 91).

Mod/Control (Modulation/Control)

Control Assign

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 100), except for the different setting values in the Destination parameter. For the setting value for "Destination," see the "Control List" in the Data List PDF document.

Receive SW (Receive Switch)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 105).

Reference	Performance	Edit	Search	Utility		Live Set
		Normal Part (AWM2)	Drum Part Nor	rmal Part (FM-X)	Common/Audio	
Key Edit	(Key)				Drum Pa Commo	
						Settings
Osc/Tune ((Oscillator/Tune)				(General
From the Oscil	llator/Tune display you ca	an set Oscillator-related	parameters for each K	ev of the Drum Par	t. 2	Zone Settings
-						Zone Transmit
Operation	[PERFORMANCE (HOME))] \rightarrow [EDIT] \rightarrow Part selectio	on \rightarrow Key selection \rightarrow [Os	c/Tune]	Effe	ct
	Davies Key Quitab				I	Routing
	Drum Key Switch				1	ns A
n t	Edit - Part6 - Drum Key (C1 FX	🚛 🔶 🖌 140	o	1	ns B
					1	EQ
Osc / Tune	ON Bank Preset	Number Category Sub Category 4674 Dr/Pc K		DM04	1	ns Assign
Turre					Arpe	eggio
Filter	Assign Mode	Connect	New Wavefor		(Common
	Single	Multi InsA			1	ndividual
Level / Pan	Tune Coarse F	Fine Pitch/Vel				Advanced
/ Pan	+0	+0 +0			Mot	ion Seq
Element		+0 +0			(Common
EQ					1	Lane
				Keyboard Select	Mod	l / Control
	Rcv Note Off Grou			Drum Key	(Control Assign
					1	Receive SW
	OFF	Off		C1 •	Key	

Bank (Waveform Bank) Number (Waveform Number) Category (Waveform Category) Sub Category (Waveform Sub Category)

Name (Waveform Name)

Indicates the information of the waveform used for the selected Drum Key. "Bank" indicates which waveform location (Preset, User and Library) is assigned to the Key.

HH Close HH Pedal HH Open Low Tom Hi Tom

Settings: Refer to the Data List PDF document.

Drum Key Switch

Determines whether the currently selected Drum Key is used or not. **Settings:** Off, On

Assign Mode (Key Assign Mode)

Determines the playing method when the same notes are received continuously, and without corresponding note off messages.

Settings: Single, Multi

Single: Double or repeated playback of the same note is not possible. The first note will be stopped, then the next note will be sounded.

Multi: All notes are sounded simultaneously. This allows playback of the same note when it is played multiple times in succession (especially for tambourine and cymbal sounds that you would want to ring out to their full decay).

Connect (Drum Key Connection Switch)

Determines which Insertion Effect (A or B) is used to process each individual Drum Key. The Insertion Effect is bypassed if "Thru" is selected. This parameter is same as the "Connect" parameter in the "Routing" display of Effect settings in Key Common Edit. Making a setting here automatically changes the setting of that parameter as well.

Settings: Thru, InsA (Insertion Effect A), InsB (Insertion Effect B)

Copying or Exchanging Drum Keys

Osc / Tune

Element EQ

Filter Level / Pan

eference	Performance	Edit	Search	h Utility	y	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audi	0
New Waveform	i				Drum Pa	art Edit
	a stored in the USB flash	n drive as "Waveform."	For details on lo	bading, see "Load"	Commo	<u>on</u>
(page 198). After the Waveform	rm is loaded, the Edit Wa	laveform parameter wil	II be available. F	or datails on "Edit	Par	t Settings
Waveform," see pa			De avaliable. 1	JI UCIAIIS OIT LUIT		General
	-					Zone Settings
Coarse (Coarse	-					Zone Transmit
Settings: -48 – +48	pitch of each Drum Key V	Nave in semitones.			Effe	
C C						Routing
Fine (Fine Tune						Ins A
	ne tuning for the pitch of	of each Drum Key Wave	е.			Ins B
Settings: -64 – 63						EQ
Pitch/Vel (Pitch	h Velocity Sensitivity	y)				Ins Assign
Determines how the	the pitch of the selected		o velocity.			eggio
Settings: -64 – 63						Common
	values: The harder you play e values: The harder you pla					Individual
•	e values: The harder you pla ange in pitch.	у the кеуроаго, the more a	ne pitch lans.			Advanced
						tion Seq
•	Receive Note Off)	·	- 12			Common
Select whether MI Settings: off, on	IIDI Note Off messages a	are received by each L	Drum Key.			Lane
Settings: on, on						d / Control
Group (Alternat	• /					
	Group to which the key				1	Control Assign
	nd simultaneously. This s ds cannot physically be					Receive SW
Soffie druff sound Settings: off, 1–127		played simulanooder,	/, 50011 05 00011	and diosed in ridio.	Key	·
						c / Tune
	Key Reverb Send)				Filte	
• •	Key Variation Send)		Nut - the point /	D		vel / Pan
	evel of the Drum key sou ble depending on the se				t. Eler	ment EQ
Settings: 0–127	ne depending on the se		Connoction call	G11.		
Drum Key Out	(Drum Key Output S	Select)			Copyir	ig or Exchangin

Determines the specific output for the individual Drum Key. This is not available depending on the settings of Drum Key Connection Switch or Part Output. **Settings:** MainL&R, USB1&2...USB7&8, USB1...USB8

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks. USB1&2...USB7&8: Outputs in stereo (Channels 1&2–7&8) to the [USB TO HOST] terminal. USB1...USB8: Outputs in mono (Channels 1–8) to the [USB TO HOST] terminal.

Keyboard Select (Keyboard Select Switch)

Determines whether or not the Keyboard Select setting is active or not. When this is set to on, you can select Drum Keys by playing the notes on the keyboard. **Settings:** Off, On

Drum Key

Indicates the selected Drum key. **Settings:** C0–C6

Reference	Performance	Edit	Search	Utility	Live Set	
		Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Commo	on/Audio	

Filter

From the Filter display you can apply filter settings to the Drum Part. These let you apply a low pass filter and high pass filter to each individual Drum key.

Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Key selection \rightarrow [Filter]



Cutoff (Low Pass Filter Cutoff Frequency)

Use this parameter to set the cutoff frequency for the low-pass filter. **Settings:** 0–255

Cutoff/Vel (Low Pass Filter Cutoff Velocity Sensitivity)

Set the velocity sensitivity of the Low Pass Filter Cutoff frequency. Positive settings will cause the Cutoff Frequency to rise the harder you play the keyboard. A negative setting will have the opposite effect. **Settings:** -64 – +63

Resonance (Low Pass Filter Resonance)

Determines the amount of Resonance (harmonic emphasis) applied to the signal at the Cutoff Frequency. **Settings:** 0–127

HPF Cutoff (High Pass Filter Cutoff Frequency)

Determines the Cutoff frequency of the High Pass Filter. **Settings:** 0–255

Drum Part Edit

Co	Common						
	Part Settings						
		General					
		Zone Settings					
		Zone Transmit					
_	Eff	ect					
_		Routing					
		Ins A					
		Ins B					
		EQ					
		Ins Assign					
_	Arpeggio						
_		Common					
		Individual					
		Advanced					
_	Мс	otion Seq					
_		Common					
		Lane					
_	Мс	od / Control					
_		Control Assign					
		Receive SW					
Key	y						
	Osc / Tune						
	Filter						
_	Le	vel / Pan					
_	Element EQ						

Reference	Performance		Edit	S	earch	Utility		Live Set
		Norm	al Part (AWM2	2) Drum P	art Norm	nal Part (FM-X)	Common/Aud	lio
Level/Par	1						— Drum F — Comn	Part Edit
From the Leve	el/Pan display you can	ı make Level	and Pan set	tings for each	n Drum Key.			rt Settings
Operation	[PERFORMANCE (HO	ME)] → [EDIT	$] \rightarrow$ Part selec	tion \rightarrow Key sele	ection \rightarrow [Leve	I/Pan]		General Zone Settings
	-							Zone Transmit
- m	🛍 Edit - Part6 - Drum I	Key C1	E	x IIII ~	J 140	III O	Ef	ect
Osc /	1							Routing
Tune								Ins A
								Ins B
Filter								EQ
1	· · · ·					_		Ins Assign
Level / Pan	Time	Attack	Decay1 Decay	/2			Ar	peggio
		0	59 5	4				Common
Element EQ	Level		Decay1					Individual
	Level							Advanced
			127			Keyboard Select	Mo	otion Seq
	Level	Level/Vel	Pan	Alternate Pan	Random Pan	Drum Key		Common

Drum Key

C1

₹

The full names of the available parameters are shown in the chart below, as they appear in the display.

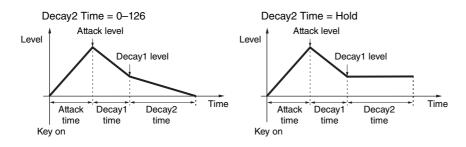
HH Close HH Pedal HH Open Low Tom Hi Tom

	Attack	Decay1	Decay2
Time	Attack Time	Decay1 Time	Decay2 Time
Level	-	Decay1 Level	_

+32

Settings: Time: 0-127, Hold (only for Decay2) Level: 0-127

Commor



Level

Determines the output level of the Drum Key. This lets you make detailed balance adjustments among the various sounds of the Drum Key.

Settings: 0-127

Level/Vel (Level Velocity Sensitivity)

Determines how the output level of the Drum Key responds to Velocity.

Settings: -64 - +63

Positive values: The more strongly you play the keyboard, the more the output rises. Negative values: The more softly you play the keyboard, the more the output rises. 0: The output level does not change.

Pan

Sets the pan position (stereo position) of each Drum Key. This will also be used as the basic Pan position for the Alternate and Random settings.

Settings: L63 (far left)-C (center)-R63 (far right)

Lane

Osc / Tune Filter Level / Pan **Element EQ**

Copying or Exchanging

Drum Keys

Key

Mod / Control

Control Assign

Receive SW

Reference	Performance	Edit		Searc	ch	Utili	ity		L	ive Set
		Normal Part (AWM2)	Drum	Part		Normal Part (FM-X)		Common	n/Audio	

Alternate Pan

Determines the amount by which the sound of the selected Drum key is panned alternately left and right for each note you press. The Pan setting (above) is used as the basic Pan position. Settings: L64-C-R63

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

Element EQ

Same as the Element Edit parameters for Normal Parts (AWM2) (page 127).

Copying or Exchanging Drum Keys

Same as "Copying or Exchanging Elements" for Normal Parts (AWM2) (page 132).

Drum Part Edit								
Co	omn	non						
	Part Settings							
	General							
		Zone Settings						
		Zone Transmit						
	Ef	fect						
	Routing							
		Ins A						
		Ins B						
		EQ						
		Ins Assign						
	Ar	peggio						
		Common						
		Individual						
		Advanced						
	М	otion Seq						
		Common						
		Lane						
	Мо	od / Control						
		Control Assign						
		Receive SW						
Ke	эy							
	Osc / Tune							
	Filter							
	Le	vel / Pan						
	Element EQ							

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	on/Audio

Normal Part (FM-X) Edit

A Normal Part (FM-X) can consist of up to eight Operators. There are two types of Normal Part (FM-X) Edit displays: Operator Common Edit display, for editing settings common to all eight Operators; and Operator Edit display, for editing individual Operators.

Operator Common Edit (Common)

Part Settings

General

From the General display you can set various parameters such as Part Name, Volume, and Pan.



 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Operator [Common] \rightarrow [Part Settings] \rightarrow [General]$

A	🛍 Edit	- Part5 - Com	mon	E	x	J 140			
Part Settings	General	Part Category Main Part Category Sub Part Name IT Bass Synth BASS							
Pitch /	Algorithm	Volume	Pan	Dry Level	VarSend	RevSend	Part Output		
Filter		117	С	127	0	0	MainL&R		
Effect	Zone Settings	Mono/Poly	Key Assign	KeyOnDly Sync	Delay Length				
	Zone	Mono Poly	Single Multi	OFF	0				
Arpeggio	Transmit	Arp Play Only	Random Pan	Alternate Pan	Scaling Pan				
Motion Seq		OFF	0	С	+0				
Mod /		Velocity Limit		Note Limit			Velocity Depth		
Mod / Control		1	127	C -2	G 8	64	64		
-									
Part 5	Common	OP1 OP2	OP3 O	P4 OP5	OP6 OP7	OP8			

Most parameters are the same as parameters on the Element Common Edit display for Normal Parts (AWM2) (page 66) except the following additional parameters as bellows.

Random Pan

Determines the amount by which the sound of the selected Operator is panned randomly left and right for each note you press. The Pan setting is used as the Center Pan position. **Settings:** 0–127

Alternate Pan

Determines the amount by which the sound of the selected Operator is panned alternately left and right for each note you press. The Pan setting is used as the basic Pan position. **Settings:** L64–C–R63

Scaling Pan

Determines the degree to which the notes (specifically, their position or octave range) affect the Pan position, left and right, of the selected Operator. At note C3, the main Pan setting is used for the basic Pan position. Positive settings will cause the Pan position to be set left when you play in the lower range on the keyboard and to be set right when you play in the higher range on the keyboard. A negative setting will have the opposite effect.

Settings: -64 - +0 - +63

Normal Part (FM-X) Edit

		·
Co	omn	hon
	Pa	rt Settings
		General
		Algorithm
		Zone Settings
		Zone Transmit
	Pi	tch / Filter
		Pitch
		PEG/Scale
		Filter Type
		Filter EG
		Filter Scale
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		2nd LFO
		Control Assign
		Receive SW
Oţ	pera	tor
	Fo	rm / Freq
	Le	vel

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commor	n/Audio

KeyOnDly Sync (Key On Delay Tempo Sync Switch)

Determines whether or not "Key On Delay Time Length" is synchronized to the tempo. **Settings:** Off, On

Delay Length (Key On Delay Time Length)

Determines the time (or elapsed delay) between the moment you press a note on the keyboard and the point at which the sound is actually played. You can set different delay times for each Operator. This is not available when "KeyOnDly Sync" is set to on.

Settings: 0-127

Delay Length (Key On Delay Note Length)

Determines the timing of "Key On Delay" when "KeyOnDly Sync" is set to on.

Settings: 1/16, 1/8 Tri. (eighth-note triplets), 1/16 Dot. (dotted sixteenth notes), 1/8, 1/4 Tri. (quarter-note triplets), 1/8 Dot. (dotted eighth notes), 1/4, 1/2 Tri. (half-note triplets), 1/4 Dot. (dotted quarter notes), 1/2, Whole Tri. (whole-note triplets), 1/2 Dot. (dotted half notes), 1/4 x 4 (quarter-note quadruplets; four quarter notes to the beat), 1/4 x 5 (quarter-note quintuplets; five quarter notes to the beat), 1/4 x 6 (quarter-note sextuplets; six quarter notes to the beat), 1/4 x 7 (quarter-note septuplets; seven quarter notes to the beat), 1/4 x 8 (quarter-note octuplets; eight quarter notes to the beat)

Algorithm

From the Algorithm display you can specify the Algorithm, which determines the arrangement of the Operators and how the FM sound is generated.



 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part selection} \rightarrow \mathsf{Operator} [\mathsf{Common}] \rightarrow [\mathsf{Part Settings}] \rightarrow [\mathsf{Algorithm}]$

A	🛍 Edit	- Part5 - Comi	mon			FX	₩₩ ←	J 14	10	o
Part Settings	General									
Pitch / Filter	Algorithm									
Effect	Zone Settings	1 3	57							
Arpeggio	Zone Transmit	Algorithm	Algorith	e m						
Motion Seq		67	Search							
Mod / Control		Feedback 6								
▼ Part5	Common	OP1 OP2	OP3	OP4	OP5	OP6	OP7	OP8		

Algorithm (Algorithm Number)

Changes Algorithms.

Settings: See the Data List PDF document.

Feedback (Feedback Level)

Waveforms can be changed by feeding some of the signal generated by an operator back through that operator. This allows you to set the feedback level. **Settings:** 0–7

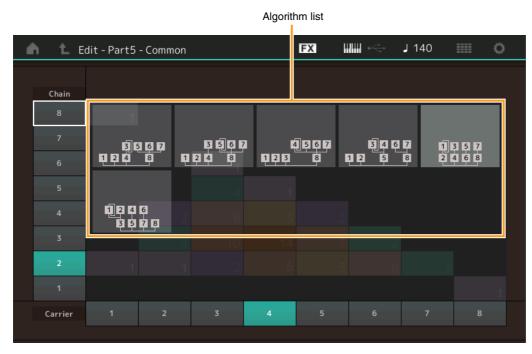
Normal Part (FM-X) Edit

lor	mal	Part (FM-X) Edit
Cc	omn	hon
	Pa	rt Settings
		General
		Algorithm
		Zone Settings
		Zone Transmit
	Pit	tch / Filter
		Pitch
		PEG/Scale
		Filter Type
		Filter EG
		Filter Scale
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		2nd LFO
		Control Assign
_		Receive SW
Oţ	oera	
		rm / Freq
	Le	vel

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	on/Audio

Algorithm Search

Calls up the Algorithm Search display. From this display you can search for desired Algorithms by filtering the number of Carriers, or the maximum length of the serial connection of Operators.



Chain

Filters the Algorithms by the maximum length of serial connection of Operators. **Settings:** 1–8

Carrier

Filters the Algorithms by the number of Carriers. **Settings:** 1–8

Zone Settings

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 71).

Zone Transmit

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 73).

Normal	Dort		
Normal	гап	(「101-へ)	i Euii

		()
Co	omm	ion
	Pa	rt Settings
		General
		Algorithm
		Zone Settings
		Zone Transmit
	Pit	ch / Filter
		Pitch
		PEG/Scale
		Filter Type
		Filter EG
		Filter Scale
	Eff	ect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		2nd LFO
		Control Assign
		Receive SW
Op	oera	tor
	Fo	rm / Freq
	Le	vel

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Common	n/Audio

Pitch/Filter

Pitch

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 68), except that the Legato Slope parameter is not available.

PEG/Scale (Pitch EG/Scale)

From the Pitch EG/Scale display you can make all time and level settings for the Pitch EG, which determine how the pitch of the sound changes over time, and the Scale for Parts.



 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \ \mathsf{selection} \rightarrow \mathsf{Operator} \ [\mathsf{Common}] \rightarrow [\mathsf{Pitch/Filter}] \rightarrow [\mathsf{PEG/Scale}]$

A	🛍 Edit	- Part5	- Common	1		FX	{		≓ J 140	iii o
Part Settings	Pitch									
Pitch / Filter	PEG / Scale									
Effect	Filter Type	Time		Attack	Decay1	Decay	2	Release	Center Key	Deitch/Key
	Filter			0	0	0		0	С 3	+100%
Arpeggio	EG	Level	Initial	Attack	Decay1	Decay	2	Release	Pitch/Vel	
Motion Seq	Filter Scale		+0	+0	+0	+()	+0	+0	
		PEG Dep	th De	epth/Vel			Time	e/Key	Random Pitch	
Mod / Control		8 o	ct	0				0	0	
Part 5	Common	OP1	OP2	OP3	OP4 OF	P5	OP6	OP7	OP8	

The full names of the available parameters are shown in the chart below, as they appear in the display.

	Initial Attack Dee		Decay1	Decay2	Release
Time	-	Attack Time	Decay1 Time	Decay2 Time	Release Time
Level	Hold Level	Attack Level	k Level Decay1 Level Decay2 Level		Release Level

Settings: Time: 0-99

Level: -50 - +50

PEG Depth

Determines the pitch range for Pitch EG. **Settings:** 8 oct, 2 oct, 1 oct, 0.5 oct

Depth/Vel (PEG Depth Velocity Sensitivity)

Determines how the pitch range will be generated according to the Velocity (strength) with which you play notes on the keyboard.

Settings: 0-7

Time/Key (PEG Time Key Follow Sensitivity)

Determines the degree to which the notes (specifically, their position or octave range) affect the Pitch EG Times. The Center Key (C3) is used as the basic pitch for this parameter.

Settings: 0–7

Positive values: High notes result in a high PEG transition speed while low notes result in a slow speed.

0: The PEG transition speed does not change, regardless of the played note.

	Pit	ch / Filter
-		Pitch
		PEG/Scale
		Filter Type
		Filter EG
		Filter Scale
_	Ef	iect
		Routing
		Ins A
		Ins B
		EQ
_		Ins Assign
	Ar	peggio
		Common
		Individual
_		Advanced
_	Mo	otion Seq
		Common
_		Lane
_	Mo	od / Control
		Part LFO
		2nd LFO
		Control Assign
		Receive SW
Ор	era	tor
_	Fo	rm / Freq
	Le	vel

Normal Part (FM-X) Edit

Part Settings

General Algorithm

Zone Settings Zone Transmit

Common

eference	Performance	Edit	Searcl	n Util	ity	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/A	Audio
Pitch/Key (Pitc	ch Key Follow Sensiti	vitv)			Norn	nal Part (FM-X) Edit
Determines the s	ensitivity of the Key Follo	• ·	rval of adjacent	notes), assuming the	nitah	nmon
	y (below) as standard.					Part Settings
Settings: -200%			the second		_	General
	the normal setting): Adjacent notes have the same pitch as t		litorie apart.			Algorithm
	e values: The settings are rev	-				Zone Settings
Contor Koy (Di	teh Koy Follow Sono	Histor Contor Koy)				Zone Transmit
	itch Key Follow Sens i central note or pitch for th		nitch		_	Pitch / Filter
Settings: C -2 – G8	•		piton.		_	Pitch
-		,				PEG/Scale
•	h Velocity Sensitivity the pitch responds to ve					Filter Type
Settings: -64 – 63	the pitch responds to ve	iocity.				Filter EG
-	values: The harder you play	the keyboard, the more the	e pitch rises.			Filter Scale
-	e values: The harder you play	y the keyboard, the more th	ne pitch falls.		_	Effect
0: No cha	ange in pitch.				_	Routing
Random Pitch	(Random Pitch Dept	h)				Ins A
Allows you to ran	ndomly vary the pitch for	each note played.				Ins B
Settings: 0-127						EQ
NOTE For details	on PEG, see the Synthesize	r Parameter Manual PDF	document.			Ins Assign
					_	Arpeggio
Eiltor Typo					_	Common
Filter Type						Individual
Same as the Eler	ment Edit parameters for	Normal Parts (AWM2)	(page 113).			Advanced
					_	Motion Seq
Eilter EC					_	Common
Filter EG						Lane
Same as the Eler	ment Edit parameters for	Normal Parts (AWM2)	(page 118).			Mod / Control
					_	Part LFO
Eiltor Soole						2nd LFO
Filter Scale						Control Assign
Same as the Eler	ment Edit parameters for	Normal Parts (AWM2)	(page 120).			Receive SW
					Ope	erator
						Form / Freq
						Level
					0	w or Evolopido

Copy or Exchange Operators

-

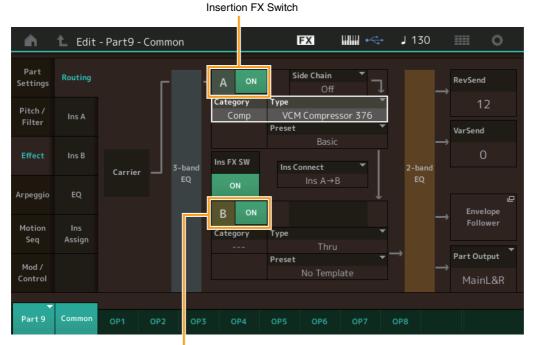
Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	Part (FM-X) Comm	on/Audio

Effect

Routing

From the Routing display you can determine the Effect connections for Parts.

Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Operator [Common] \rightarrow [Effect] \rightarrow [Routing]



Insertion FX Switch

Insertion FX Switch

Determines whether the Insertion Effect A/B is active or not. **Settings:** Off, On

Category (Effect Category) Type (Effect Type)

Determines the category and type for the selected Effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations.

Settings: For a list of all Preset Effects, see the Data List PDF document.

Side Chain/Modulator (Side Chain/Modulator Part)

Determines the Part used for the Side Chain/Modulator. This is not active depending on Effect Types. For details on the Side Chain/Modulator, see the Routing display (page 76) of the Normal Part (AWM2). **Settings:** Part 1–16, A/D, Master, Off

Ins Connect (Insertion Connection Type)

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. For details, see the section "Effect connection" (page 20) of the "Basic Structure."

Settings: Parallel, Ins $A \rightarrow B$, Ins $B \rightarrow A$

Normal	Part ((FM-X)	Edit

Normal Part (FM-X) Edit								
Co	mm	non						
	Pa	rt Settings						
		General						
		Algorithm						
		Zone Settings						
		Zone Transmit						
	Pit	tch / Filter						
		Pitch						
		PEG/Scale						
		Filter Type						
		Filter EG						
		Filter Scale						
	Ef	fect						
		Routing						
		Ins A						
		Ins B						
		EQ						
		Ins Assign						
	Ar	peggio						
		Common						
		Individual						
		Advanced						
	Мо	otion Seq						
		Common						
		Lane						
	Мс	od / Control						
		Part LFO						
		2nd LFO						
		Control Assign						
	_	Receive SW						
Op	bera							
		rm / Freq						
	Le	vel						

eference	Performance	Edit	Search	Utilit	ty	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Au	dio
	everb Send) Send level of the signal se	ent from Insertion Effect	t A/B to the Reve	erb effect.	Norma Comr	l Part (FM-X) Edit non
Settings: 0-127					Pa	art Settings
Var Send (Var	riation Send)					General
Determines the	e Send level of the signal se	ent from Insertion Effect	A/B to the Varia	ation effect.		Algorithm
Settings: 0-127						Zone Settings
Part Output ((Part Output Select)					Zone Transmit
• •	e specific audio output.				Pi	tch / Filter
Settings: MainL&F	&R, USB1&2USB7&8, USB1L					Pitch
	&R: Outputs in stereo (two chan	, .				PEG/Scale
	&2USB7&8: Outputs in stered USB8: Outputs in mono (Char	· · · · ·	. ,	terminal.		Filter Type
	audio signal for the Part is outp	, .	1001] terminal			Filter EG
	-					Filter Scale
					Ef	ifect
•	rtion Effect A)					Routing
Ins D (Inser	rtion Effect B)				•	Ins A
Same as the Ele	ement Common Edit paran	neters for Normal Parts	(AWM2) (page	77).	•	Ins B
					•	EQ
	- !')					Ins Assign
EQ (Part Eq	Jualizer)				A	rpeggio
Same as the Elf	ement Common Edit paran	neters for Normal Parts	(AWM2) (page	78).	•	Common
			· -		•	Individual
					•	Advanced
Ins Assign	(Insertion Assign)				M	otion Seq
Como oo tho El	omont Common Edit parar	meters for Normal Parts	(AWM2) (page	81)		Common

Arpeggio

Common

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 82).

Individual

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 85).

Advanced

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 87).

Motion Seq (Motion Sequencer)

Common

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 88).

Lane

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 91).

Lane Mod / Control

Form / Freq

Copy or Exchange

Operator

Level

Operators

Part LFO 2nd LFO

Control Assign Receive SW

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	I Part (FM-X) Commor	ı/Audio

Mod/Control (Modulation/Control)

Part LFO

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 96), except that the setting values of the Destination parameter differ and that "Element Phase Offset (LFO Element Phase Offset)" is not available. For details on the setting values, see the Data List PDF document.

2nd LFO

Operation

 $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Operator [Common] \rightarrow [Mod/Control] \rightarrow [2nd LFO]$

A	🛍 Edit	- Part5 - Comr	non		F	X		0	J	140			¢
Part Settings	Part LFO	LFO Wave Triang	ile 🔨	/		\mathbb{W}	\mathbb{W}	\mathbb{N}	\mathbb{N}	\mathbb{N}	\mathbb{W}	\mathbb{W}	\mathbb{W}
Pitch / Filter	2nd LFO	Key On Reset OFF	Speed	Phase	℃	Dela	y O						
Effect	Control Assign												
Arpeggio	Receive SW	Destination			Depth	1	2)perate	or Deptl 4	h Ratio 5	6	7	8
Motion		Pitch	Modulation		0	3	3	3	3	3	3	3	3
Seq		Amplitu	ıde Modulati	ion	0	3	3	3	3	3	3	3	3
Mod / Control		Filter Modulation											
▼ Part5	Common	OP1 OP2	OP3	OP4	OP5	OP6	0	P7	OP8				

Pitch Modulation Operator Depth Ratio (2nd LFO Pitch Modulation Operator Depth Ratio)

Amplitude Modulation Operator Depth Ratio (2nd LFO Amplitude Modulation Operator Depth Ratio)

LFO Wave (2nd LFO Waveform)

Selects the 2nd LFO waveform.

Settings: Triangle, Saw Down, Saw Up, Square, Sine, S/H

NOTE When "Sine" is selected, two waves will be shown in the diagram on the display because of the phase shift of the Amplitude Modulation wave.

Key On Reset (2nd LFO Key On Reset)

Determines whether or not the 2nd LFO is reset each time a note is pressed. **Settings:** Off, On

Speed (2nd LFO Speed)

Adjusts the speed (frequency) of the 2nd LFO variation. **Settings:** 0–99

Phase (2nd LFO Phase)

Determines the starting phase point for the 2nd LFO Wave when it is reset. **Settings:** 0°, 90°, 180°, 270°

Delay (2nd LFO Delay Time)

Determines the delay time between the moment you press a key on the keyboard and the moment the 2nd LFO comes into effect.

Settings: 0-99

		Algorithm
		Zone Settings
		Zone Transmit
	Pit	ch / Filter
		Pitch
		PEG/Scale
		Filter Type
		Filter EG
		Filter Scale
	Efl	ect
		Routing
		Ins A
		Ins B
		EQ
_		Ins Assign
	Ar	peggio
		Common
		Individual
_		Advanced
_	Mc	otion Seq
		Common
		Lane
	Mc	od / Control
		Part LFO
		2nd LFO
		Control Assign
		Receive SW
Оре	era	tor
	Fo	rm / Freq
	Le	vel

Normal Part (FM-X) Edit

Part Settings

General Algorithm

Common

		Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part N	lormal Part (FM-X)	Common/Audio
	tion (2nd LFO Pitch I				Normal Part (FM-X) Ed
etermines the ettings: 0–99	amount (depth) by which	1 the 2nd LFO wavelorn	n varies (modulates,) the pitch of the sour	Common
-					Part Settings
•	odulation (2nd LFO A	•	• •	N. H. Harrison	General
etermines the plume of the so	amount (depth) by which	h the 2nd LFO waveforr	n varies (modulates) the amplitude or	Algorithm
ettings: 0–99	Juna.				Zone Settings
-		1. Julatian Danih)			Zone Transmit
	tion (2nd LFO Filter N amount (depth) by which		muariae (modulates) the Eilter Cutoff	Pitch / Filter
equency.		II LIE ZHU LI U WAVEIUN	II Valles (Inoquiates		Pitch
ettings: 0–99					PEG/Scale
itab Madula	tion Operator Depth	Patia			Filter Type
	tion Operator Depth ch Modulation Operat				Filter EG
	ount (depth) which is det	•	O Pitch Modulation I	Depth" for each	Filter Scale
perator.				I	Effect
ettings: 0-7					Routing
molitude Ma	odulation Operator D	enth Ratio			Ins A
	plitude Modulation C))		Ins B
djusts the amo	• ount (depth) which is det			ation Depth" for each	EQ
perator.					
-					Ins Assign
ettings: 0-7					Ins Assign Arpeggio
-					
ettings: 0-7	sian				Arpeggio
-	sign				Arpeggio Common
ettings: 0-7	-	→ (FDIT) → Part selection	→ Operator [Commo	n] → [Mod/Control] →	Arpeggio Common Individual
Control Ass	sign [PERFORMANCE (HOME)] [Control Assign]	\rightarrow [EDIT] \rightarrow Part selection	n → Operator [Commo	n] → [Mod/Control] →	Arpeggio Common Individual Advanced
Control Ass	[PERFORMANCE (HOME)]	\rightarrow [EDIT] \rightarrow Part selection	n → Operator [Commo	n] → [Mod/Control] →	Arpeggio Common Individual Advanced Motion Seq
ettings: 0–7 Control Ass Operation	[PERFORMANCE (HOME)]	→ [EDIT] → Part selection	n → Operator [Commo		Arpeggio Common Individual Advanced Motion Seq Common
ettings: 0-7 Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common		J 140		Arpeggio Common Individual Advanced Motion Seq Common Lane
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common	FX	J 140	D IIII ()	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part LFO Destination 2	EX Display Nam Knob 1	J 140	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part Auto Display Filter Select Asgr 2nd Destination 2	FX Tisplay Nam	J 140	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part LFO 2nd LFO Destination 2 InsA InpLv1	EX Display Nam Knob 1	J 140	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Part LFO 2nd LFO Control Assig
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part Auto Display Filter Select Asgr 2nd Destination 2	EX Display Nam Knob 1	J 140	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Part LFO 2nd LFO Control Assig Receive SW
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part LFO 2nd LFO 2nd LFO InsA InpLv1 Source AsgnKnob 1	EX Display Nam Knob 1	J 140	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Part LFO 2nd LFO Control Assig Receive SW
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part LFO 2nd LFO Destination 2 InsA InpLv1 Source Assign AsgnKnob 1	EX Display Nam	шш 🦟 Ј 14(е (т)	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part LFO 2nd LFO 2nd LFO InsA InpLv1 Source AsgnKnob 1	EX Display Nam	J 140	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part LFO 2nd LFO Destination 2 InsA InpLv1 Source Assign AsgnKnob 1	EX Display Nam	шш 🦟 Ј 14(е (т)	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq Level
Control Ass Operation	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part Auto LFO Display Filter 2nd Destination 2 LFO Source Source Assign Assign AsgnKnob 1 Standard Standard	EX Display Nam NKnob 1 Display Nam NKnob 1 Polarity Ra Uni Bi Etit Compone	e (r) e Table And And And And And And And And And And	D IIII Ø	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO 2nd LFO Control Assig Receive SW Operator Form / Freq Level
ettings: 0–7 Control Ass Operation [Part Settings Pitch / Filter Effect CA Arpeggio R Motion	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part Auto Part Display Filter Select Display Filter 2nd Destination 2 LFO Source Assign AsgnKnob 1 Curve Type Standard Destination Destination	FX Display Nam hKnob 1 → Polarity Ra Uni Bi Edit Common ^{II} Control	e (r) e Table And And And And And And And And And And	D IIII O	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq Level
ettings: 0–7 Control Ass Operation Part Settings Pitch / Filter Effect Arpeggio Motion Seq Mot /	[PERFORMANCE (HOME)] [Control Assign] Edit - Part5 - Common Part Auto Part Display Filter Select Display Filter 2nd Destination 2 LFO Source Assign AsgnKnob 1 Curve Type Standard Destination Destination	Edit Common Control	e (r) e Table And And And And And And And And And And	Page 1	Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq Level

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 100), except for the different setting values in the Destination parameter. For details on the setting value, see the Data List PDF document.

Also the following parameter is shown on this display.

Operator SW (Operator Switch)

Selects whether the controller will affect each individual Operator (On) or not (Off). This is available only when an Operator-related parameter is set in "Destination." **Settings:** Off, On

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio

A	🛍 Edit	- Part5 -	Comm	on			F	Х		÷]′	140		o
Part Settings	Part LFO	Auto Select)isplay F	ilter AsgnKnob	o 1	-	Display	Name		[7]		Page 1	
Pitch / Filter	2nd LFO	Destinatio	n 2 P Frec	- 1		+							
Effect	Control Assign	Source	•	Operator Ra	te		2	3	4	5	6	7	8
	Receive	AsgnKno	ob 1	SW / Rate		+0	+0	+0	+0	+7	+0	+0	+0
Arpeggio	SW	Curve Typ				Polarit	ý	Ratio		Param 1			
Motion Seq		Standa			ннннн	Uni	Bi	+	32	ŗ	5		
		Destinat		Edit	₽	Edit C	ommon						D
Mod / Control		to Nam		User Curve			itrol tings					Del	ete
Part 5	Common	OP1	OP2	OP3	ОР		OP5	OP6	OP7	OP8			

Operator Rate

Determines the sensitivity of the Controller in changing the parameter set in "Destination" for each Operator.

This is available only when "Destination" is set to "OP Freq" or "OP AEG Offset." **Settings:** Off, On

SW/Rate (Operator Switch/Operator Rate Switch)

Switches displays between "Operator Switch" and "Operator Rate." This is available only when "Destination" is set to "OP Freq" or "OP AEG Offset." **Settings:** Off, On

Receive SW (Receive Switch)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 105).

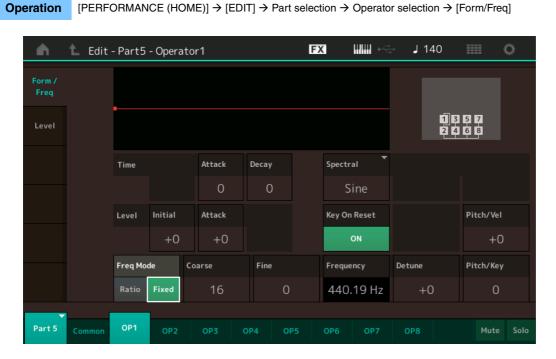
Nor	mal	Part (FM-X) Edit
Co	omn	non
	Pa	rt Settings
		General
		Algorithm
		Zone Settings
		Zone Transmit
	Pi	tch / Filter
		Pitch
		PEG/Scale
		Filter Type
		Filter EG
		Filter Scale
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
		Ins Assign
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Мо	od / Control
		Part LFO
		2nd LFO
		Control Assign
		Receive SW
0	oera	tor
	Fo	rm / Freq
	Le	vel

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commor	n/Audio

Operator Edit (Operator)

Form/Freq (Form/Frequency)

From the Form/Frequency display you can make all the waveform and frequency settings for Operators.



The full names of the available parameters are shown in the chart below, as they appear in the display.

	Initial	Attack	Decay
Time	-	Attack Time	Decay Time
Level	Initial Level	Attack Level	-

Settings: Time: 0-99

Level: -50 – +50

Spectral (Spectral Form)

Determines the "spectral form" of the selected Operator. **Settings:** Sine, All 1, All 2, Odd 1, Odd 2, Res 1, Res 2

Skirt (Spectral Skirt)

Determines the spread of the "skirt" at the bottom of the formant harmonics curve. Higher values produce a wider skirt and smaller values produce a narrower skirt. This is not available when "Spectral" is set to "Sine."

Settings: 0-7

Resonance (Spectral Resonance)

Determines the degree to which velocity affects the Resonance of the Spectral Form. The center frequency moves to higher frequencies, letting you create a special resonance in the sound. This is active only when "Spectral" is set to "Res 1" or "Res 2."

Settings: 0-99

Normal Part (FM-X) Edit

Normain	
Commo	on
Par	t Settings
	General
	Algorithm
1	Zone Settings
1	Zone Transmit
Pitc	h / Filter
	Pitch
	PEG/Scale
	Filter Type
	Filter EG
	Filter Scale
Effe	ct
	Routing
	Ins A
	Ins B
	EQ
	Ins Assign
Arp	eggio
	Common
	Individual
	Advanced
Mot	ion Seq
	Common
	Lane
Мос	d / Control
	Part LFO
	2nd LFO
1	Control Assign
_	Receive SW
perato	
For	m / Freq
Lev	el

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	on/Audio

all2

Center Frequency (F.Coarse & Freq Fine)

odd2

Center Frequency

(F.Coarse & Freq Fine)

res 2

Skirt

Center Frequency

(F.Coarse & Freq Fine) (Hz)

Resonance of Center Frequency

Skirt 🛶

Skirt -

Frequency

Frequency

Frequency

(Hz)

(Hz)

Basic waveforms used as Operators contain harmonics, with the exception of "Sine." A sine wave contains its fundamental frequency with no additional harmonics. Therefore, when "Form" is set to any waveform other than "Sine," you can adjust harmonics and the peak of each formant, depending on the Waveform Type by determining the related parameters. Below are the basic waveforms and the characteristic parameters.

Level

Frequency

Level

Frequency

The larger the "Skirt" value, the more harmonics the wave contains.

Level

Frequency

The larger "Resonance" value, the higher frequency the center frequency is moved. • Resonance=0: The Center frequency is the basic wave • Resonance=99: The Center frequency is the 100th harmonic

(Hz)

(Hz)

all1

Center Frequency (F.Coarse & Freq Fine)

odd1

Center Frequency

(F.Coarse & Freq Fine)

res 1

Skirt

Center Frequency

(F.Coarse & Freq Fine) (Hz)

Resonance of

Center Frequency

Skirt 🛶

Skirt

Level

Level

Level

Normal Part (FM-X) Edit

offiai Part (FM-X) Edit
Common
Part Settings
General
Algorithm
Zone Settings
Zone Transmit
Pitch / Filter
Pitch
PEG/Scale
Filter Type
Filter EG
Filter Scale
Effect
Routing
Ins A
Ins B
EQ
Ins Assign
Arpeggio
Common
Individual
Advanced
Motion Seq
Common
Lane
Mod / Control
Part LFO
2nd LFO
Control Assign
Receive SW
perator
Form / Freq
Level

Key On Reset (Oscillator Key On Reset) Determines whether or not the oscillation of the Operator is reset each time a note is pressed.

Settings: Off, On

Pitch/Vel (Pitch Velocity Sensitivity)

Determines how the pitch of the selected Operator responds to velocity. This is available only when "Freq Mode" is set to "Fixed."

Settinas: -7 - +7

Positive values: The harder you play the keyboard, the more the pitch rises. Negative values: The harder you play the keyboard, the more the pitch falls. 0: No change in pitch.

Freq Mode (Oscillator Frequency Mode)

Determines the settings for the Output Pitch of the Operator. Settings: Ratio, Fixed

> Ratio: Determines the Output Pitch by detecting the note you play on the keyboard. Fixed: Specifies the Pitch by setting "Coarse" and "Fine."

ference	Performa	ance	Edit		Se	earch	Utili	ty	Live Set
		No	rmal Part (AW	/M2)	Drum Pa	art Norr	mal Part (FM-X)	Con	nmon/Audio
Coarse (Coars	e Tune)								Normal Part (FM-X) Ed
Determines the p	•	Operator.							Common
Settings: When "Fre									Part Settings
WINELL FI	req Mode" is set t	to "Fixea ∶ u−∠ i							General
Fine (Fine Tune	•								Algorithm
Determines the fi	•	•	h Operator.						Zone Settings
Settings: When "Fre When "Fre		to "Ratio": 0–99 to "Fixed": 0–127							Zone Transmit
	by mode	10 1 1/100							Pitch / Filter
Detune		- Periodala	· · ·						Pitch
Sets the Output F Even if the same					-d "Fine]	Tuno " the D	Notiona late VOLL		PEG/Scale
even if the same								and	Filter Type
enhance the spat			.or, a	your				une.	Filter EG
Settings: -15 – +15									
Ditah/Kay (Pite	-h Kov Follo	Concitivity	A						Filter Scale
Pitch/Key (Pitc Determines the s	-	-	•	aroo der	nonding (on their nos	vition or octave		Effect
ange). This is av					Jenung				Routing
Settings: 0–99									Ins A
-		pitch specified by	Coarse and Fi	ine.					Ins B
99: Adjac	cent notes are più	itched one semiton	ne apart.						EQ
99: Adja(cent notes are pi [.]	itched one semitor	ne apart.						EQ Ins Assign
	cent notes are pi	itched one semitor	ne apart.						
Level									Ins Assign
Level				ugs for th	ne Opera	tor.			Ins Assign Arpeggio
Level	lisplay you car	n make all the v	rolume settin	-			[ا בעב]		Ins Assign Arpeggio Common
Level	lisplay you car		rolume settin	-			[Level]		Ins Assign Arpeggio Common Individual
Level From the Level di Operation [P	lisplay you car PERFORMANCE	n make all the v E (HOME)] → [ED	rolume settin	-		r selection \rightarrow		 	Ins Assign Arpeggio Common Individual Advanced
Level From the Level di Operation [P	lisplay you car	n make all the v E (HOME)] → [ED	rolume settin	election →	Operator	r selection \rightarrow			Ins Assign Arpeggio Common Individual Advanced Motion Seq
Level From the Level di Operation [P	lisplay you car PERFORMANCE	n make all the v E (HOME)] → [ED	rolume settin	election →	Operator	r selection \rightarrow			Ins Assign Arpeggio Common Individual Advanced Motion Seq Common
From the Level di Operation [P	lisplay you car PERFORMANCE	n make all the v E (HOME)] → [ED	rolume settin	election →	Operator	r selection \rightarrow			Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane
Level From the Level di Operation [P	lisplay you car PERFORMANCE	n make all the v E (HOME)] → [ED	rolume settin	election →	Operator	r selection → J 140	III 0		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control
Level From the Level di Operation [P	lisplay you car PERFORMANCE	n make all the v E (HOME)] → [ED	rolume settin	election →	Operator	r selection → J 140			Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO
Level From the Level di Operation [P	lisplay you car PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [ED Operator1	olume settin DIT] → Part se	election →	> Operator	r selection →	3 5 7 4 6 8		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO
Level From the Level di Operation [P	lisplay you car PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [EE Operator1	Polume settin DIT] → Part se	Election ->	> Operator	r selection → - J 140 Break Point	3 5 7 4 6 8		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW
Level From the Level di Operation [P	lisplay you car PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [ED Operator1	olume settin DIT] → Part se	election →	> Operator	r selection →	3 5 7 4 6 8		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW Operator
Level From the Level di Operation [P	lisplay you car PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [EE Operator1	DIT] → Part se	Pecay2	> Operator	r selection → - J 140 Break Point	3 5 7 4 6 8		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW Operator Form / Freq
Level From the Level di Operation [P	lisplay you car PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [EE Operator1	DIT] → Part se	Pecay2	> Operator	r selection → J 140 Break Point C 1 Lv1/Key Lo	3 5 7 4 6 8 Lv1/Key Hi		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW Operator
Level From the Level di Operation [P	lisplay you can PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [ED Operator1 old Attack 0 0 Attack 99	Polume settin DIT] → Part se DEcay1 D 39 Decay1 D	Decay2 0 Decay2 0	Operator Operator IIIIII Release 40 Rel(Hold) 0	r selection → J 140 Break Point C 1 LvI/Key Lo O	3 5 7 4 6 8 Lv1/Key Hi O		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW Operator Form / Freq
Level From the Level di Operation [P	lisplay you car PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [ED Operator1	Polume settin DIT] → Part se DEcay1 D 39 Decay1 D	Decay2 0 Decay2	Operator Operator IIIIII Release 40 Rel(Hold) 0	r selection → J 140 Break Point C 1 Lv1/Key Lo	3 5 7 4 6 8 Lv1/Key Hi		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW Operator Form / Freq Level
Level From the Level di Operation [P	lisplay you can PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [ED Operator1 old Attack 0 0 Attack 99	Polume settin DIT] → Part se DEcay1 D 39 Decay1 D	Decay2 0 Decay2 0	Operator Operator IIIIII Release 40 Rel(Hold) 0	r selection → J 140 Break Point C 1 LvI/Key Lo O	3 5 7 4 6 8 Lv1/Key Hi O		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW Operator Form / Freq
Level From the Level di Operation [P	lisplay you can PERFORMANCE Edit - Part5 - C	n make all the v E (HOME)] → [ED Operator1 old Attack 0 0 Attack 99 Level/Vel	Polume settin DIT] → Part se DEcay1 D 39 Decay1 D	Decay2 0 Decay2 0	Operator Operator IIIIII Release 40 Rel(Hold) 0 /Key	selection → J 140 J 140 Break Point C 1 Lvl/Key Lo O Curve Lo	3 5 7 4 6 8 Lvl/Key Hi 0 Curve Hi 1		Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW Operator Form / Freq Level Copy or Exchange

The full names of the available parameters are shown in the chart below, as they appear in the display.

	Hold	Attack	Decay1	Decay2	Release
Time	Hold Time	Attack Time	Decay1 Time	Decay2 Time	Release Time
Level	_	Attack Level	Decay1 Level	Decay2 Level	Release (Hold) Level

Settings: Time: 0–99 Level: 0–99

Level (Operator Level)

Determines the output level of the Operator. **Settings:** 0–99

Time/Key (AEG Time Key Follow Sensitivity)	eference	Performance	Edit	Search	Util	ity	Live Set
Determines how the output level of the Operator responds to Velocity. Settings:			Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Commor	/Audio
Determines how the output level of the Operator responds to Velocity. Settings: -77 Positive values: The more strongly you play the keyboard, the more the output rises. Negative values: The more settingly the keyboard, the more the output rises. Time/Key (AEG Time Key Follow Sensitivity) Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. Settings: 0-7 Positive values: The more securiting a fast Amplitude EG transition speed while low notes result in a slow speed. G: The Amplitude EG transition speed does not change, regardless of the played note. Break Point Determines the Amplitude Scale Break Points by specifying their respective note numbers. Settings: -1 - C8 Curve Lo (Low Curve) Curve Lo (Low Curve) Determines the curve for Amplitude scaling. Settings: -1-near. Lv/Key Hi (High Depth) Lv/Key Hi (High Depth) Determines the curve degree of the curve (above). Settings: 0-99 The keyboard is divided in two at the break point. The high-pitch side at the right is set by using the I Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Common Lane Med / Control Part LFO							
Settings: :7-47 Positive values: The more strongly you play the keyboard, the more the output rises. Negative values: The more stongly you play the keyboard, the more the output rises. 0: The output level does not change. Trime/Key (AEG Time Key Follow Sensitivity) Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. Settings: :0-7 Positive values: High notes result in a tast Amplitude EG transition speed while low notes result in a slow speed. 0: The Amplitude EG transition speed does not change, regardless of the played note. Pitch / Filter Pitch Positive values: High notes result in a slow speed. 0: The Amplitude EG transition speed does not change, regardless of the played note. Filter Tgp Filter Tgp Filter Tgp Filter Scale Settings: .4-1 - C8 Curve Lo (Low Curve) Curve Hi (High Curve) Determines the Curve for Amplitude scaling. Settings: .4-1 - C8 Lv/Key Lo (Low Depth) Lv/Key Hi (High Depth) Determines the curve degree of the curve (above). Settings: 0-39 The keyboard is divided in two at the break point. The high-Dift is set by using the E Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Cow Depth Com Common Came Common	•	-	• •			No	rmal Part (FM-X) Edit
Part Settings Positive values: The more strongly you play the keyboard, the more the output rises. Break Point Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. Settings: 0-7 Positive values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed. D: The Amplitude EG transition speed does not change, regardless of the played note. Break Point Determines the Amplitude Scale Break Points by specifying their respective note numbers. Settings: A-1 - C8 Curve Lo (Low Curve) Curve Li (High Curve) Determines the curve (or Amplitude scaling. Settings: 0-49 Determines the curve degree of the curve (above). Settings: 0-49 The keyboard is divided in two at the break point. The high-plich side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + + Low Depth Low Dept		ne output level of the (Operator responds to Ve	elocity.		C	ommon
Negative values: The more softly you play the keyboard, the more the output rises. General 0: The output level does not change. Algorithm Time/Key (AEG Time Key Follow Sensitivity) Zone Statings Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. Pitch / Fitter Settings: 0-7 Positive values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed. Pitch / Fitter Determines the Amplitude EG transition speed does not change, regardless of the played note. Pitch / Fitter Settings: .1-0.8 Editor Values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed. Pitch / Fitter Settings: .1-1.2 Positive values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed. Pitch / Fitter Settings: .1-0.2 Curve Lo (Low Curve) Fitter Scale Effect Curve Lo (Low Depth) Notify and the respective note numbers. Ins B Eq Lvl/Key Lo (Low Depth) Lvl/Key Lo (Low Depth) Ins Assign Azypegio Common Individual Advanced Advanced Motion Seq Common Eq Common Individual Lvl/Key Lo (Low Depth) <td>-</td> <td>/alues: The more stronalv</td> <td>vou play the keyboard, the r</td> <td>more the output rises</td> <td></td> <td></td> <td>Part Settings</td>	-	/alues: The more stronalv	vou play the keyboard, the r	more the output rises			Part Settings
Time/Key (AEG Time Key Follow Sensitivity) Zone Settings Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. Pitch / Filter Settings: 0-7 Positive values: High notes result in a fast Amplitude EG Times times on the applitude EG transition speed while low notes result in a slow speed. Pitch / Filter Betermines the Amplitude EG transition speed while low notes result in a slow speed. 0: The Amplitude EG transition speed while low notes result in a slow speed. Pitch / Filter Betermines the Amplitude EG transition speed while low notes result in a slow speed. 0: The Amplitude EG transition speed while low notes result in a slow speed. Pitch / Filter Betermines the Amplitude EG transition speed does not change, regardless of the played note. Pitch / Filter Pitch / Filter Corner Lo (Low Curve) Effect Routing Filter Scale Effect Curve Lo (Low Depth) Eo Ins B Ins B EQ Ins A sign Lv/Key Li (Ligh Depth) Determines the curve degree of the curve (above). Common Individual Advanced Motion Seq Control Control Control Part LFO 2nd LFO 2nd LFO 2nd LFO 2nd LFO 2nd LFO 2nd LFO Control Assig Receive SW							General
Time Key (AEL: Time Key Pollow Sensitivity) Zone Transmit Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. Pitch / Filter Settings: C-7 Positive values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed. 0: The Amplitude EG transition speed does not change, regardless of the played note. Pitch / Filter Break Point Determines the Amplitude Scale Break Points by specifying their respective note numbers. Filter Type Settings: A1 - C8 Curve Lo (Low Curve) Routing Ins A Curve Lo (Low Curve) Ins A Ins A Lvi/Key Lo (Low Depth) Determines the curve for Amplitude scaling. Ins A Ins A Settings: 0-99 The keyboard is divided in two at the break point. Ins Assign Arpeggio Common Individual Advanced Motion Seq Common Low Depth Low Depth + High Depth Mod / Control Low Depth Low Curve + High Depth Mod / Control Determines the curve degree of the curve as described below. High Depth Mod / Control Part LFO 2 and LFO Low Curve + High Depth Exercice SW <td>0: The out</td> <td>put level does not change.</td> <td></td> <td></td> <td></td> <td></td> <td>Algorithm</td>	0: The out	put level does not change.					Algorithm
Determines the degree to which the notes (specifically, their position or octave range) affect the Amplitude EG Times. Settings: 0-7 Positive values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed. 0: The Amplitude EG transition speed does not change, regardless of the played note. Break Point Determines the Amplitude Scale Break Points by specifying their respective note numbers. Settings: :A1 - C8 Curve Lo (Low Curve) Curve Hi (High Curve) Determines the curve for Amplitude scaling. Settings: -Linear, -Exp, +Exp, +Linear Lv/Key Lo (Low Depth) Lv/Key Li (Ligh Depth) Determines the curve degree of the curve (above). Settings: 0-99 The keyboard is divided in two at the break point. The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Low Depth Low Depth	Time/Key (AFG	Time Key Follow 9	Sensitivity)				Zone Settings
EG Times. Settings: 0-7 Positive values: High notes result in a fast Amplitude EG transition speed does not change, regardless of the played note. Break Point Determines the Amplitude Scale Break Points by specifying their respective note numbers. Settings: A-1 - C8 Curve Lo (Low Curve) Curve Hi (High Curve) Determines the curve for Amplitude scaling. Settings: -Linear, -Exp, +Exp, +Linear Lv//Key Lo (Low Depth) Lv//Key Hi (High Depth) Determines the curve degree of the curve (above). Settings: 0-99 The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. The keyboard is divided in two at the break point. Low Depth Low Depth	• •	•	• •	sition or octave ra	nge) affect the Ampl	itude	Zone Transmit
Positive values: High notes result in a fast Amplitude EG transition speed while low notes result in a slow speed. PEC/Scale D: The Amplitude EG transition speed does not change, regardless of the played note. Filter Type Break Point Petermines the Amplitude Scale Break Points by specifying their respective note numbers. Filter Type Settings: A-1 – C8 Effect Routing Curve Lo (Low Curve) Routing Ins A Determines the curve for Amplitude scaling. Bettings: -Linear, -Exp, +Exp, +Linear EQ Lv/Key Lo (Low Depth) Ins A EQ Lv/Key Hi (High Depth) Arpeggio Common Determines the curve degree of the curve (above). Settings: -0-99 Advanced The keyboard is divided in two at the break point. Advanced Motion Seq The keyboard is divided in two at the break point. High Curve High Depth Part LFO Low Depth Low Depth High Curve High Depth Roetion Assign Low Depth Low Depth High Curve High Depth Eare					nge) aneet ne / impi		Pitch / Filter
0: The Amplitude EG transition speed does not change, regardless of the played note. PECu/Scale Break Point Filter Type Determines the Amplitude Scale Break Points by specifying their respective note numbers. Filter Type Settings: A-1 - C8 Effect Curve Lo (Low Curve) Ins A Curve Hi (High Curve) Ins A Determines the curve for Amplitude scaling. EQ Lvt/Key Lo (Low Depth) Ins Assign Lvt/Key Hi (High Depth) Common Determines the curve degree of the curve (above). Common Settings: -0-99 Common The keyboard is divided in two at the break point. Advanced Modion Seq Common Lane Modion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assig Low Depth High Depth Low Depth High Depth Low Depth High Depth	Settings: 0-7						Pitch
Break Point Filter Type Determines the Amplitude Scale Break Points by specifying their respective note numbers. Filter EG Settings: A-1 - C8 Effect Curve Lo (Low Curve) Ins A Determines the curve for Amplitude scaling. EQ Settings: -Linear, -Exp, +Linear EQ Lv/Key Lo (Low Depth) Ins A sasign Lv/Key Hi (High Depth) Petermines the curve degree of the curve (above). Settings: 0-99 Common The keyboard is divided in two at the break point. Advanced The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Common Uptur Level + Mod / Control Part LFO 2nd LFO 2nd LFO Control Part LFO 2nd LFO Control Part LFO 2nd LFO Control Part LFO 2nd LFO Control Part LFO 2nd LFO Low Depth Key High Depth		-		•		eed.	PEG/Scale
Determines the Amplitude Scale Break Points by specifying their respective note numbers. Settings: A-1 - C8 Curve Lo (Low Curve) Curve Hi (High Curve) Determines the curve for Amplitude scaling. Settings: -Linear -Exp. +Exp. +Linear Lv/Key Lo (Low Depth) Lv/Key Hi (High Depth) Determines the curve degree of the curve (above). Settings: 0-99 The keyboard is divided in two at the break point. The kigh-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Low Depth Low Depth Low Depth Low Depth Low Depth	U: The Am	plitude EG transition speed	d does not change, regardle	ss of the played note).		Filter Type
Settings: A-1 - C8 Curve Lo (Low Curve) Curve Hi (High Curve) Determines the curve for Amplitude scaling. Settings: -Linear, -Exp, +Exp, +Linear Lv/Key Lo (Low Depth) Lv/Key Hi (High Depth) Determines the curve degree of the curve (above). Settings: 0-99 The keyboard is divided in two at the break point. The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Output Level + I ther Output I there output I th	Break Point						Filter EG
Curve Lo (Low Curve) Routing Curve Hi (High Curve) Ins A Determines the curve for Amplitude scaling. Ins B Settings: -Linear, -Exp, +Exp, +Linear EQ Lvl/Key Lo (Low Depth) Ins Assign Lvl/Key Hi (High Depth) Arpeggio Determines the curve degree of the curve (above). Arpeggio Settings: 0-99 Common The keyboard is divided in two at the break point. Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assig Low Depth High Curve Low Depth High Curve Key High Depth		mplitude Scale Break F	Points by specifying the	ir respective note	numbers.		Filter Scale
Curve Hi (High Curve) Ins A Determines the curve for Amplitude scaling. Ins B Settings: -Linear, -Exp, +Exp, +Linear EQ Lv/Key Lo (Low Depth) Ins Assign Lv/Key Hi (High Depth) Arpeggio Determines the curve degree of the curve (above). Common Settings: 0-99 Individual The keyboard is divided in two at the break point. Advanced The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Common Output Level + Mod / Control Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq Low Depth Key High Depth	Settings: A-1 – C8						Effect
Curve Hi (High Curve) Ins A Determines the curve for Amplitude scaling. Ins B Settings: -Linear, -Exp, +Exp, +Linear EQ Lv/Key Lo (Low Depth) Ins Assign Lv/Key Hi (High Depth) Arpeggio Determines the curve degree of the curve (above). Common Settings: 0-99 Individual The keyboard is divided in two at the break point. Advanced The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Common Output Level + Mod / Control Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq Low Depth Key High Depth	Curve Lo (Low	Curve)					Routing
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Lvl/Key Hi (High Depth) Arpeggio Determines the curve degree of the curve (above). Common Settings: 0-99 Individual The keyboard is divided in two at the break point. Advanced The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Common Output Level + Low Depth + Low Depth Key High Depth Operator Form / Freq Level	Settings: -Linear, -E	xp, +Exp, +Linear					EQ
Lvl/Key Hi (High Depth) Arpeggio Determines the curve degree of the curve (above). Common Settings: 0-99 Individual The keyboard is divided in two at the break point. Advanced The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Common Output Level + Low Depth + Low Depth Key High Depth Operator Form / Freq Level	LvI/Kev Lo (Lov	v Depth)					Ins Assign
Determines the curve degree of the curve (above). Settings: 0-99 The keyboard is divided in two at the break point. The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Low Depth Low Depth Low Depth							
The keyboard is divided in two at the break point. The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Low Depth Low Curve Key High Curve High Depth High Depth High Depth High Depth Control Part LFO 2nd LFO Control Assig Receive SW Operator Form / Freq Level		• •	ve (above).				
The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Low Depth Low Curve Key Low Depth Curve Key Low Depth Curve Key Low Depth Curve Key Low Depth Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Control Assig Receive SW Operator Form / Freq Level	Settings: 0-99						Individual
The high-pitch side at the right is set by using the R Depth and the R Curve; the low-pitch side at the left is set by using the L Depth and the L Curve as described below. Output Level + Low Depth Low Curve Key Low Depth Curve Key Low Depth Curve Key Low Depth Curve Key Low Depth Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Low Curve Key Control Assig Receive SW Operator Form / Freq Level	The keyboard is d	lividad in two at the hr	oak point				Advanced
set by using the L Depth and the L Curve as described below. Output Level + Low Depth Low Depth				he R Curve; the l	ow-pitch side at the l	left is	Motion Sea
Output Level + Image: state of the state o							
Output Level + Hinear +exp +exp +linear +exp High Curve High Depth Receive SW Operator Form / Freq Level Level							
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Low Depth Low Curve High Curve Key High Depth High Depth Control Assig Receive SW Operator Form / Freq Level		\	\land \mid $/$				
Low Depth Level			$\backslash \backslash / /$				
Key Operator Form / Freq Level			urve		enth		_
Form / Freq Level				Key High D	epui	0	
Level						-0	
			$//$ $ \setminus \setminus$	λ			
		-exp	-linear -line	ar -exp		_	

Break Point Output Level

Copy or Exchange Operators

The Output level of the Key set as the Break Point depends on the Operator Level setting. For the Keys in the left side of the Break Point, the Output level is adjusted based on the curve which is determined by the Low Curve and Low Depth. For the Keys in the right side of the Break Point, the Output level is adjusted based on the curve which is determined by the High Curve and High Depth. The Output level changes in an exponential fashion from the Break Point on the Exp type curve and the Output level changes in a linear fashion from the Break Point in the Linear type curve. In either case, the farther away from the Break Point the key is, the greater the Output level changes for the key.

■ Copying or Exchanging Operators

Same as "Copying or Exchanging Elements" for Normal Parts (AWM2) (page 132).

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio

Common/Audio Edit (Common/Audio)

A Performance consists up to 16 Parts. You can set the parameters related to the entire Performance and the Audio Parts in the Common/Audio Edit display.

General

From the General display you can set various parameters for the Performance.

Operation $[PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow [General]$ **J** 140 A Edit - Common/Audio FΧ Ö Performance Name ▼ Tg Flag [T] Motion Control Flag General Freaky Dancer FM-X + AWM2 Volume Var Return Rev Return Audio In Motion Portamento Master SW Time Sea ON Assign 1 Mode Assign 2 Mode MS Hold Mode Latch Audition Bank Phrase Number Note Shift Velocity Shift Monitor 879 SynLd 022 Update User Auditions

Performance Name

Determines the selected Performance name. Performance names can contain up to 20 characters. Touching the parameter calls up the input character display.

Motion Control Flag

Determines whether or not to add the "Motion Control" attribute to the selected Performance. When this is set to on, the "MC" icon is displayed in the Performance Play display (page 27). The Performance can be filtered as "MC" in the Performance Category Search display (page 176). **Settings:** Off, On

Tg Flag (Tone Generator Flag)

Shows the attribute by the Tone Generator of the selected Performance. The name icon of the selected Tone Generator is displayed in the Performance Play display (page 27). The Performance can be filtered as "AWM2/FM/AWM2+FM-X" in the Performance Category Search display (page 176). **Settings:** AWM2, FM-X, AWM2+FM-X

Volume (Performance Volume)

Determines the output volume of the selected Performance. **Settings:** 0–127

Pan

Determines the stereo pan position of the selected Performance. **Settings:** L63–C–R63

Var Return (Variation Return)

Determines the return level of the Variation effect. **Settings:** 0–127

Comme	
Comm	non/Audio
Ge	eneral
Au	idio In
	Mixing
	Routing
	Ins A
	Ins B
	EQ
Mc	otion Seq
	Common
	Lane
Co	ontrol
	Control Assign
	Control Number
Eff	ect
	Routing
	Variation
	Reverb
	Master FX
	Master EQ
US	B Monitor

eference	Performance	Edit	Search	Utility		_ive Set
		Normal Part (AWM2)	Drum Part N	ormal Part (FM-X)	Common/Audio	
	everb Return) eturn level of the Reverb	effect.			Common//	
Settings: 0-127					Generation	ral
Audition Phras	se Bank				Audio	In
Selects an Auditi	on Phrase Bank.				Mi	ixing
Audition Phras	se Number				R	outing
	udition Phrase Number.	You can hear a sample	e of the selected Per	formance sounds that	t In:	s A
is called "Audition	n phrase." The best mate					s B
advance.					E	ç
Settings: 1-1093					Motio	n Seq
Note Shift (Aud	dition Phrase Note S	hift)			Co	ommon
	bitch (key transpose) sett	ing for the Audition Phi	rase in semitones.		La	ine
Settings: -24semi -	- +24semi				Contr	ol
Velocity Shift (Audition Phrase Velo	ocity Shift)			Co	ontrol Assign
	elocity of the Audition Ph	nrase.			Co	ontrol Number
Settings: -63 - +63	3				Effect	:
Portamento Ma	aster SW (Portament	o Master Switch)			Ro	outing
	her Portamento is applie		n the "Portamento P	art SW" is set to on for	r Va	riation
the Part.					Re	everb
Settings: Off, On					Ma	aster FX
Portamento Ti	me				Ma	aster EQ
Determines the p Settings: -64 – +63	oitch transition time or rat	e when Portamento is a	applied.		USB I	Vonitor
Assign 1 Mode Determines whet Settings: Latch, Mo Latch: W	e/Assign 2 Mode (Ass her the [ASSIGN 1] and	[ASSIGN 2] buttons fur	nctions as a latch typ atus between on and off	pe or momentary type	÷.	

MS Hold Mode (Motion Sequencer Hold Mode)

Determines how the [MOTION SEQ HOLD] button responds when pressed.

Settings: Latch, Momentary

 $\label{eq:Latch: When set to ``Latch,'' pressing the button alternates the status between on and off.$

Momentary: When set to "Momentary," pressing/holding the button turns on and releasing the button turns off.

Update User Auditions

Converts all of the songs recorded on the MODX to User Auditions. If the User Auditions already exist, all User Auditions will be overwritten.

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norn	nal Part (FM-X) Commo	n/Audio

Audio In

Mixing

From the Mixing display you can adjust the volume settings of the Audio Part (the input signal from the A/D INPUT [L/MONO]/[R] jacks) and the Digital Part (the input signal from the [USB TO HOST] terminal*). * Only the sound of the Port which, among all Device Ports, is set to "Digital L/R."

Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow [Audio In] \rightarrow [Mixing]

A	🛍 Edit	- Common/Aud	io	Đ	×	J 140	¢
General	Mixing						
Audio In	Denting	A/D In	Input Mode				
Audio In	Routing		Stereo				
Motion Seq	Ins A	Volume	Pan	Dry Level	Var Send	Rev Send	Output Select
		100	С	127	0	0	MainL&R
Control	Ins B	Digital In	Input Mode				
Effect	EQ		Stereo				
USB		Volume	Pan	Dry Level	Var Send	Rev Send	Output Select
USB Monitor		100	С	127	0	0	MainL&R
Common							

Cor	nmo	on/Audio Edit
Co	omn	non/Audio
	Ge	eneral
	Au	ıdio In
		Mixing
		Routing
		Ins A
		Ins B
		EQ
	Mo	otion Seq
		Common
		Lane
	Сс	ontrol
		Control Assign
		Control Number
	Ef	fect
		Routing
		Variation

Reverb Master FX Master EQ USB Monitor

A/D In Input Mode/Digital In Input Mode (A/D Part Input Mode/Digital Part Input Mode)

Determines the signal configuration for the A/D Part/Digital 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 is used.

R Mono: Only the R channel is used.

L+R Mono: The L and R channels are mixed and processed in mono.

Stereo: Both the L and R channels are used.

NOTE The sound input only from the [L/MONO] channel is processed in mono.

Volume (A/D Part Volume/Digital Part Volume)

Determines the output level of the A/D Part/Digital Part. **Settings:** 0–127

Pan (A/D Part Pan/Digital Part Pan)

Determines the stereo pan position of the A/D Part/Digital Part. **Settings:** L63–C–R63

Dry Level (A/D Part Dry Level/Digital Part Dry Level)

Determines the level of the A/D Part/Digital Part which has not been processed with the System Effect. This is available only when "Part Output" is set to "MainL&R." **Settings:** 0–127

Var Send (A/D Part Variation Send / Digital Part Variation Send)

Determines the Send level of the Audio Part/Digital Part signal sent to the Variation effect. This is available only when "Part Output" is set to "MainL&R," and for the A/D Part, "Global A/D" is set to "OFF." **Settings:** 0–127

Reference	Performance	Edit	Search		Utility	y		_ive Set
		Normal Part (AWM2)	Drum Part	Normal	Part (FM-X)		Common/Audio	

Rev Send (A/D Part Reverb Send/Digital Part Reverb Send)

Determines the Send level of the Audio Part/Digital Part signal sent to the Reverb effect. This is available only when "Part Output" is set to "MainL&R," and for the A/D Part, "Global A/D" is set to "OFF." **Settings:** 0–127

Output Select (A/D Part Part Output Select/Digital Part Part Output Select)

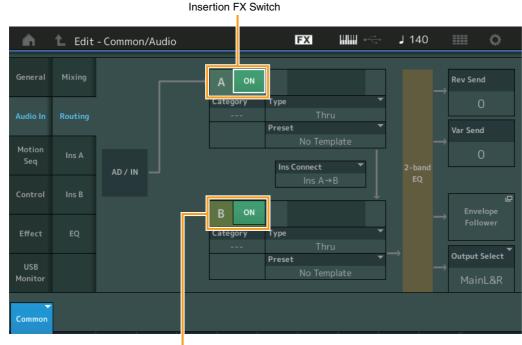
Determines the specific output(s) for the individual A/D Part/Digital Part signal. **Settings:** MainL&R, USB1&2...USB7&8, USB1...USB8, Off

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks. USB1&2...USB7&8: Outputs in stereo (Channels 1&2–7&8) to the [USB TO HOST] terminal. USB1...USB8: Outputs in mono (Channels 1–8) to the [USB TO HOST] terminal. Off: No audio signal for the Part is output.

Routing

From the Routing display you can determine the Effect connections for the A/D Part.

Operation [PERFORMANCE (HOME)] → [EDIT] → [Audio In] → [Routing]



Insertion FX Switch

Insertion FX Switch (Insertion Effect Switch)

Determines whether the Insertion Effect A/B is active or not. **Settings:** Off, On

Category (Effect Category) Type (Effect Type)

Determines the category and type for the selected Effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations. You can change how the sound is affected by the selected pre-programmed settings.

Settings: For a list of all Preset Effects, see the Data List PDF document.

Common/Audio Edit

C

omn	non/Audio
Ge	eneral
Αι	ıdio In
	Mixing
	Routing
	Ins A
	Ins B
	EQ
Mo	otion Seq
	Common
	Lane
Сс	ontrol
	Control Assign
	Control Number
Ef	fect
	Routing
	Variation
	Reverb
	Master FX
	Master EQ
US	SB Monitor

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	on/Audio

Side Chain/Modulator (Side Chain/Modulator Part)

Determines the Part used for the Side Chain/Modulator. This is not available depending on the Effect Type. For details on the Side Chain/Modulator, see the Routing display of the Normal Part (AWM2) (page 76). **Settings:** Part 1–16, A/D, Master, Off

Ins Connect (Insertion Connection Type)

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. For details, see the section "Effect connection" (page 20) of the "Basic Structure."

Settings: Ins A→B, Ins B→A

Rev Send (Reverb Send)

Determines the Send level of the signal sent from Insertion Effect A/B (or the bypassed signal) to the Reverb effect. This is available only when "Part Output" is set to "MainL&R" and "Global A/D" is set to "OFF."

Settings: 0-127

Var Send (Variation Send)

Determines the Send level of the signal sent from Insertion Effect A/B (or the bypassed signal) to the Variation effect. This is available only when "Part Output" is set to "MainL&R" and "Global A/D" is set to "OFF."

Settings: 0-127

Envelope Follower

Calls up the Envelope Follower setting display. For details, see the Routing display (page 76) of Normal Part (AWM2) Edit. This is available only when "Part Output" is set to "MainL&R."

Output Select (Part Output Select)

Determines specific audio output.

Settings: MainL&R, USB1&2...USB7&8, AsgnL, USB1...USB8, Off

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks. USB1&2...USB7&8: Outputs in stereo (Channels 1&2–7&8) to the [USB TO HOST] terminal. USB1...USB8: Outputs in mono (Channels 1–8) to the [USB TO HOST] terminal. Off: No audio signal for the Part is output.

Ins A (Insertion Effect A) Ins B (Insertion Effect B)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 77).

EQ (Equalizer)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 78) except that "3-band EQ" is inactive.

mn	non/Audio
Ge	eneral
Αι	ıdio In
	Mixing
	Routing
	Ins A
	Ins B
	EQ
Mo	otion Seq
	Common
	Lane
Сс	ontrol
	Control Assign
	Control Number
Ef	fect
	Routing
	Variation
	Reverb
	Master FX
	Master EQ
US	B Monitor

Common/Audio Edit

Со

Reference	Performance	Edit	Search		Utili	ty		Live Set
		Normal Part (AWM2)	Drum Part	Normal	Part (FM-X)		Common/Audi	0

Motion Seq (Motion Sequencer)

Common

From the Common display you can set the parameters related to Motion Sequencer commonly used for all Parts in Common/Audio Part.

Operation [PERFORMANCE (HOME)] → [EDIT] → [Motion Seq] → [Common]

General	Common	Common							
		Clo	ock	A	rp		Mot	ion Seq	
		Swing	Unit	Gate Time	Velocity	Amplitude	Shape	Smooth	Random
Audio In	Lane	+0	100%	+0	+0	+0	+0	+0	+0
Motion Seq									
Control								F	Random
Control Effect									Random O
Control Effect USB							Sync P		

Common Clock Swing (Common Swing)

Determines the Swing of the Arpeggio/Motion Sequencer for the entire Performance. This is the offset value for the Swing of the Arpeggio/Motion Sequencer for each Part. **Settings:** -120 - +120

Common Clock Unit (Common Unit Multiply)

Adjusts the Arpeggio/Motion Sequencer playback time for the entire Performance.

This parameter is applied to the Part when the Unit Multiply parameter for the Part is set to "Common."

By using this parameter, you can create a different Arpeggio/Motion Sequencer type from the original one. **Settings:** 50%–400%

200%: The playback time will be doubled and the tempo is halved.

100%: The normal playback time.

50%: The playback time will be halved and the tempo doubled.

Common Arp Gate Time (Common Arpeggio Gate Time)

Determines the Gate Time Rate (length) of the Arpeggio for the entire Performance. This is the offset value for the Gate Time Rate of the Arpeggio for each Part.

Settings: -100 - +100

Common Arp Velocity (Common Arpeggio Velocity Rate)

Determines the Velocity Rate of the Arpeggio for the entire Performance. This is the offset value for the Velocity Rate of the Arpeggio for each Part.

Settings: -100 - +100

Common Motion Seq Amplitude (Common Motion Sequencer Amplitude)

Determines the Amplitude of the Motion Sequencer for the entire Performance. "Amplitude" determines how the entire Motion Sequence changes.

This is the offset value for the Part Motion Seq Amplitude, which is also the offset value for the Lane Amplitude. This results in that both of the Common and Part MS Amplitudes offset the Amplitude setting in the Lane (only when "MS FX" is set to on for the Lane).

Settings: -64 - +63

164

Common/Audio Edit

Common/Audio General

> Audio In Mixing

> > Routing Ins A

Ins B EQ Motion Seq Common Lane Control

Effect

Routing Variation Reverb Master FX Master EQ USB Monitor

Control Assign Control Number

Reference	Performance	Edit	Search	۱	Utility	7		Live Set
		Normal Part (AWM2)	Drum Part		Normal Part (FM-X)	Сс	ommon/Audio	

Common Motion Seq Shape (Common Motion Sequencer Pulse Shape)

Determines the Pulse Shape of the Motion Sequencer for the entire Performance. This changes the step curve shape of the sequence.

This is the offset value for the Part Motion Seq Pulse Shape, which is also the offset value for the Lane Pulse Shape. This results in that both of the Common and Part MS Pulse Shapes offset the Pulse Shape setting for the parameter in the Lane (only when "MS FX" is set to on for the Lane and "Control" is set to on for the parameter).

Settings: -100 - +100

Common Motion Seq Smooth (Common Motion Sequencer Smoothness)

Determines the Smoothness of the Motion Sequencer for the entire Performance. "Smoothness" is the degree to which the time of the Motion Sequence is smoothly changed.

This is the offset value for the Part Motion Seq Smoothness, which is also the offset value for the Lane Smoothness. This results in that both of the Common and Part MS Smoothnesses offset the Smoothness setting for the parameter in the Lane (only when "MS FX" is set to on for the Lane). **Settings:** -64 - +63

Common Motion Seq Random (Common Motion Sequencer Random)

Determines the Random of the Motion Sequencer for the entire Performance. "Random" is the degree to which the Step Value of the Sequence is randomly changed. This is the offset value for the Part Motion Seq Random when "MS FX" is set to on for the Lane. **Settings:** -64 - +63

Random (A/D Part Motion Sequencer Random)

Determines the degree of random change in the Step Value of the Motion Sequence for the A/D Part is. For details about "Random," see "Quick Edit" on page 38.

Settings: 0-127

Sync Part (Motion Sequencer Sync Part)

Determines the Part for synchronizing to the Motion Sequencer. The Motion Sequencer is synchronized to the Note On setting and the Arp/Motion Seq Grid setting of the specified Part. **Settings:** Part 1–Part 16

Arp/MS Grid (Arpeggio/Motion Sequencer Grid)

Determines the type of note that serves as the basis for the Quantize or Swing. The parameter value is displayed in clocks. For Motion Sequencer, this parameter value is one step length. This setting is applied to the Part which is selected as the Sync Part (above).

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)

Lane

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 91).

Common/Audio Edit

Comn	non/Audio
Ge	eneral
Αι	udio In
	Mixing
	Routing
	Ins A
	Ins B
	EQ
Mo	otion Seq
	Common
	Lane
Co	ontrol
	Control Assign
	Control Number
Ef	fect
	Routing
	Variation
	Reverb
	Master FX
	Master EQ
US	SB Monitor

		Normal Dart (AMMO)			
		Normal Part (AWM2)	?) Drum Part	Normal Part (FM-X)	Common/Audio
Control					Common/Audio Edit
					Common/Audio
Central Ac	-!				General
Control Ass	sign				Audio In
	[PERFORMANCE (HOME)] -	\rightarrow [EDIT] \rightarrow [Control] $-$	→ [Control Assign]		Mixing
Operation	or				Routing
	Touch [Edit Super Knob] in th	e Super Knob display.			Ins A
	Touching the "+" button add	ds a Part parameter to	be used as a control	taraet.	Ins B
					EQ
. n. t.	Edit - Common/Audio	FX	x	140 📖 🔅	Motion Seq
	Auto Display Filter		Ŀ	Page	Common
General	ontrol	ollow 1	it Envelope Follower	1	Lane
	Destination 6				Control
Audio In	Control	\pm			Control Assig
	InsA Param 1				Control Numb
Motion Seq	Source				Effect
	EnvFollow 1				Routing
Control			Rayan		Variation
	Curve Type	Polarity	Ratio Param'		Reverb
Effect	Standard	Uni Bi	+32	5	Master FX
		ے dit			Master EQ
USB Monitor		ait Curve		Delete	USB Monitor

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 100), except for the following parameters.

Destination

When "Source" is set to "AsgnKnob 1-8," "Part 1-16 Assign 1-8" are added as this parameter values. In this case, "Curve Type" and "Curve Ratio" are not selectable. Settings: See the "Control List" in the Data List PDF document.

Source

When "Destination" is set to "Part 1–16 Assign 1–8," only "AsgnKnob 1–8" can be set for this parameter. Settings: AsgnKnob 1-8, MS Lane 1-4, EnvFollow 1-16, EnvFollowAD, EnvFollowMst

Display Filter

Determines the Controller to be displayed. When "Super Knob" is selected, all Assignable Knob settings in which "Super Knob Link" is set to On are displayed.

Settings: AsgnKnob 1-8, Super Knob, MS Lane 1-4, EnvFollow 1-16, EnvFollowAD, EnvFollowMst, All

The following parameters are displayed only when "Destination 1–16" is set to "Part 1–16 Assign 1–8." Also, when Destination is not set to any Assignable Knobs for the Part, only the shortcut buttons are available.

Destination

Determines the controller settings for the Part to be displayed.

Settings: 1-16 (The number of Destinations for the Assignable Knobs for the Part which is selected in "Destination 1-16" is displayed.)

Parameter

Determines the parameters for the Part to be controlled. Settings: Refer to the "Control List" in the Data List.

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part No	ormal Part (FM-X) Comm	on/Audio

Edit Part Control Settings

Calls up the Control Assign display for the currently selected Part.

Curve Type

Determines the specific curve for changing the parameter which is set in "Destination." The horizontal axis indicates the value of the controller set in "Source" and the vertical axis indicates the parameter values.

Settings: Standard, Sigmoid, Threshold, Bell, Dogleg, FM, AM, M, Discrete Saw, Smooth Saw, Triangle, Square, Trapezoid, Tilt Sine, Bounce, Resonance, Sequence, Hold

For User Bank: User 1-32

When a Library file is read: Curves in Library 1–8

Polarity (Curve Polarity)

Determines the Curve Polarity of the Curve type set in "Curve Type."

Settings: Uni, Bi

Uni: Unipolar changes only in a positive direction or in a negative direction from a base parameter value according to the Curve shape.

Bi: Bipolar changes in both of positive and negative directions from a base parameter value.

Ratio (Curve Ratio)

Determines the Curve Ratio. **Settings:** -64 – +63

Control Number

0

Determines the MIDI Control Change numbers common for the entire system. You can use the Knobs on the front panel and external controllers by assigning appropriate MIDI Control Change numbers. When the same control number is assigned to the Super Knob and any Assignable Knob, the Super Knob takes priority and operation of the Assignable Knob may be ignored. A warning message appears in that case. **NOTE** External controllers include external sequencers and external MIDI controllers.

NOTE The Control Number set in this display is stored as Performance data. However, "FS Assign," "Super Knob CC" and "Scene CC" are stored as general system settings, and not as Performance data.

peration	$[PERFORMANCE (HOME)] \rightarrow [EDII] \rightarrow [Control] \rightarrow [Control Number]$	

A	🛍 Edit	- Common/Aud	io	FΣ	× الللل	J 140	
General	Control Assign						
Audio In	Control	Ribbon Ctrl	Breath Ctrl	Foot Ctrl 1	Foot Ctrl 2		
Audio III	Number	16	2	11	Super Knob		
Motion Seq		Assign SW 1	Assign SW 2	MS Hold	MS Trigger		
		86	87	88	89		
Control		Assign Knob 1	Assign Knob 2	Assign Knob 3	Assign Knob 4		Scene CC
Effect		17	18	19	20		92
USB		Assign Knob 5	Assign Knob 6	Assign Knob 7	Assign Knob 8	FS Assign	Super Knob CC
USB Monitor		21	22	23	24	Arp SW	95
Common						MIDI S	묘 ettings

Ribbon Ctrl (Ribbon Controller Control Number)

Determines the Control Change Number received from an external device with a Ribbon Controller. Even when the instrument receives MIDI messages with the same Control Change Number specified here from an external device, the instrument assumes that the message is generated by operating the Ribbon Controller.

Settings: Off, 1-95

Common/Audio Edit

Common/Audio General

Audio In

Mixing

Routing

Ins A

Ins B EQ

Motion Seq

Lane

Control

Effect

Common

Control Assign

Routing Variation

Reverb Master FX

USB Monitor

Master EQ

Control Number

Reference	Performance	Edit	Search		Utility	/	Li	ive Set
		Normal Part (AWM2)	Drum Part	Normal	Part (FM-X)		Common/Audio	

Breath Ctrl (Breath Controller Control Number)

Determines the Control Change Number received from the external equipment such as a Breath Controller. Even when the instrument receives MIDI message with the same Control Change Number specified here from the external equipment, the instrument assumes that the message is generated by operating the Breath Controller.

Settings: Off, 1-95

Foot Ctrl 1/Foot Ctrl 2

(Foot Controller 1 Control Number/Foot Controller 2 Control Number)

Determines the Control Change Number generated by using a Foot Controller connected to the FOOT CONTROLLER [1] /[2] jack.

Even when the instrument receives MIDI messages with the same Control Change Number specified here from the external equipment, the instrument assumes that the message is generated by operating the Foot Controller.

Settings: Off, 1–95, Super Knob

Assign SW 1/Assign SW 2 (Assignable Switch 1 Control Number/Assignable Switch 2 Control Number)

Determines the Control Change Number generated by using the [ASSIGN 1]/[ASSIGN 2] button (Assignable Switch 1/2).

Even when the instrument receives MIDI messages with the same Control Change Number specified here from the external equipment, the instrument assumes that the message is generated by operating the [ASSIGN 1]/[ASSIGN 2] button (Assignable Switch 1/2.) **Settings:** Off, 1–95

MS Hold (Motion Sequencer Hold Control Number)

Determines the Control Change Number generated by using the [MOTION SEQ HOLD] (Motion Sequencer Hold) button.

Even when the instrument receives MIDI messages with the same Control Change Number specified here from the external equipment, the instrument assumes that the message is generated by operating the [MOTION SEQ HOLD] (Motion Sequencer Hold) button.

Settings: Off, 1-95

MS Trigger (Motion Sequencer Trigger Control Number)

Determines the Control Change Number generated by using the [MOTION SEQ TRIGGER] (Motion Sequencer Trigger) button.

Even when the instrument receives MIDI messages with the same Control Change Number specified here from the external equipment, the instrument assumes that the message is generated by operating the [MOTION SEQ TRIGGER] (Motion Sequencer Trigger) button.

Settings: Off, 1-95

Assign Knob 1-8 (Assignable Knob 1-8 Control Number)

Determines the Control Change Number generated by using the Assignable Knob 1–8. Even when the instrument receives MIDI messages with the same Control Change Number specified here from the external equipment, the instrument assumes that the message is generated by operating the Assignable Knob 1–8.

Settings: Off, 1-95

MIDI Settings

Calls up the MIDI I/O display in Utility.

Common/Audio Edit

Co	omn	non/Audio					
	General						
	Audio In						
		Mixing					
		Routing					
		Ins A					
		Ins B					
		EQ					
	Мо	otion Seq					
		Common					
		Lane					
	Сс	ontrol					
		Control Assign					
		Control Number					
	Ef	fect					
		Routing					
		Variation					
		Reverb					
		Master FX					
		Master EQ					
	US	B Monitor					

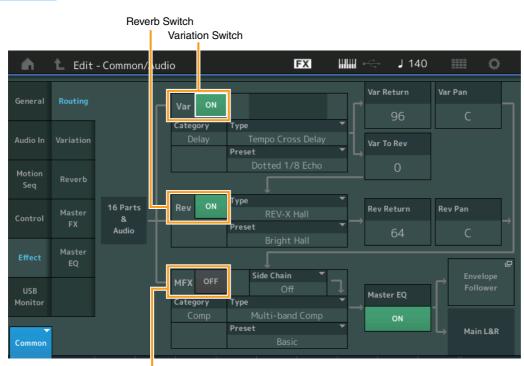
Reference	Performance	Edit	Search		Utility	У	L	ive Set
		Normal Part (AWM2)	Drum Part	Normal	Part (FM-X)		Common/Audio	

Effect

Routing

From this display you can determine the System Effect and Master Effect connections that commonly affect all Parts.

Operation [PERFORMANCE (HOME)] → [EDIT] → [Effect] → [Routing]



Common/Audio Edit							
Comn	non/Audio						
Ge	General						
Αι	ıdio In						
	Mixing						
	Routing						
	Ins A						
	Ins B						
	EQ						
Мо	otion Seq						
	Common						
	Lane						
Co	ontrol						
	Control Assign						
	Control Number						
► Ef	fect						
	Routing						
	Variation						
	Reverb						
	Master FX						
	Master EQ						
US	B Monitor						

Master Effect Switch

Variation/Reverb/Master Effect Switch

Determines whether Variation/Reverb/Master Effect is active or not. **Settings:** Off, On

Category (Variation/Reverb/Master Effect Category) Type (Variation/Reverb/Master Effect Type)

Determines the category and type for the selected effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset (Variation/Reverb/Master Effect Preset)

Allows you to call up pre-programmed settings for each Variation/Reverb/Master Effect type, designed to be used for specific applications and situations.

Settings: For a list of all Preset Effect Types, see the Data List PDF document.

Side Chain/Modulator (Variation/Master Effect Side Chain/Modulator Part)

Determines the Part used for Side Chain/Modulator for Variation/Master Effect. This is not available when you select the same Part or "Master" as the Modulator Part. **Settings:** Part 1–16, A/D, Master, Off

Var Return (Variation Return) Rev Return (Reverb Return)

Determines the return level of the Variation/Reverb effect. **Settings:** 0–127

Reference	Performance	Edit	Search	Utility		Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audi	0
Var Pan (Variat Rev Pan (Reve						n/Audio Edit
Determines the p	an position of the Variat	ion/Reverb effect.				neral
Settings: L63 (far le	eft)-C (center)-R63 (far right)				dio In
Var to Rev (Var	iation to Reverb)					Mixing
Determines the S	end level of the signal s	ent from the Variation E	Effect to the Reve		Routing	
Settings: 0-127					Ins A	
Master EQ (Ma	ster Equalizer Switc	h)				Ins B
•	her the Master EQ is ac	•				EQ
Settings: Off, On					Mot	tion Seq
Envelope Follo	wer					Common
•	elope Follower setting di	splay. See the Routing	display (page 75) for the Normal Part		Lane
(AWM2).						ntrol
						Control Assign

Variation

From this display you can determine the detailed settings of the Variation effect.

Operation

 $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow [\mathsf{Effect}] \rightarrow [\mathsf{Variation}]$

Variation Switch

A	🛍 Edit	- Cc mmon/Aud	io	FΣ	< ₩₩ ~	- J 140	0
General	Routing	ON Categor Dela		ipo Cross Dela	▼ Preset ay Dotte	▼ ed 1/8 Echo	
Audio In	Variation	Delay Time L>R	Delay Time R>L	Lag	Feedback	FB High Damp	
Audio In	variation	1/8 Dot.	1/4	Oms	+22	1.0	
Motion Seq	Reverb	Input Select					
Control	Master	L&R					
Control	FX	EQ Low Gain	EQ High Gain				
Effect	Master EQ	OdB	OdB				
USB		EQ Low Freq	EQ High Freq				
Monitor		250Hz	4.0kHz				
Common							

Effect Parameter

Variation Switch

Determines whether the Variation effect is active or not. **Settings:** Off, On

Category (Variation Category)

Type (Variation Type)

Determines the category and type for the selected effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset (Variation Preset)

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations.

Settings: For a list of all Preset Effect Types, see the Data List PDF document.

Control Number

Effect

►

Routing

Variation

Reverb Master FX

Master EQ USB Monitor

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio

Side Chain/Modulator (Variation Effect Side Chain/Modulator Part)

Determines the Part used for Side Chain/Modulator for Variation Effect. This is not available when you select the same Part or "Master" as the Modulator Part. **Settings:** Part 1–16, A/D, Master, Off

Effect Parameter

Editable parameters differ depending on the selected Effect Types. For details on the editable Effect parameters for each Effect Type, see the Data List PDF document. Also, for details on the description for each Effect parameter, see the Synthesizer Parameter Manual PDF document.

Reverb

From this display you can determine the detailed settings of the Reverb effect.

Operation [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow [Effect] \rightarrow [Reverb]

Reverb Switch

A	🛍 Edit	- Common/Aud	io	Ð	< ₩₩ ~	≓ J 140	≡ ¢
General	Routing	ON Categor		REV-X Hall	▼ Preset Br	▼ ight Hall	
Audio In	Variation	Reverb Time 3.7s	Room Size	Initial Delay 105.6ms	High Ratio	Low Ratio	Diffusion 10
Motion Seq	Reverb		Decay			HPF Cutoff	LPF Cutoff
Control	Master FX		49			100Hz	4.0kHz
Effect	Master EQ						
USB Monitor							
Common							

Effect Parameter

Reverb Switch

Determines whether the Reverb effect is active or not. **Settings:** Off, On

Category (Reverb Category)

Type (Reverb Type)

Determines the category and type for the selected effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset (Reverb Preset)

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations.

Settings: For a list of all Preset Effect Types, see the Data List PDF document.

Effect Parameter

Editable parameters differ depending on the selected Effect Types. For details on the editable Effect parameters for each Effect Type, see the Data List PDF document. Also, for details on the description for each Effect parameter, see the Synthesizer Parameter Manual PDF document.

Common/Audio Edit

omn	non/Audio				
Ge	General				
Αι	ıdio In				
	Mixing				
	Routing				
	Ins A				
	Ins B				
	EQ				
Mo	otion Seq				
	Common				
	Lane				
Сс	ontrol				
	Control Assign				
	Control Number				
Ef	fect				
	Routing				
	Variation				
	Reverb				
	Master FX				
	Master EQ				
US	B Monitor				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/Audio

Common/Audio Edit Master FX (Master Effect) Common/Audio From this display you can determine the detailed settings of the Master Effect. General Audio In Operation $[\mathsf{PERFORMANCE} (\mathsf{HOME})] \rightarrow [\mathsf{EDIT}] \rightarrow [\mathsf{Effect}] \rightarrow [\mathsf{Master} \mathsf{FX}]$ Mixing Routing Master Effect Switch Ins A FX J 140 Ö Edit - Co mmon/Audio Ins B A EQ Preset Side Chain Category Type Motion Seq Common High Threshold Audio In Lane Control Low Gain Mid Gain High Gain **Control Assign Control Number** Effect Low Ratio Mid Ratio High Ratio Routing Variation Reverb Low Attack Mid Attack High Attack Com Release Master FX Monitor Master EQ **USB** Monitor

Effect Parameter

Master Effect Switch

Determines whether the Master Effect is active or not. **Settings:** Off, On

Category (Master Effect Category) Type (Master Effect Type)

Determines the category and type for the selected effect.

Settings: For details on the editable Effect categories and types, see the Data List PDF document. Also, for details on the description for each Effect type, see the Synthesizer Parameter Manual PDF document.

Preset (Master Effect Preset)

Allows you to call up pre-programmed settings for each Effect type, designed to be used for specific applications and situations.

Settings: For a list of all Preset Effect Types, see the Data List PDF document.

Side Chain/Modulator (Master Effect Side Chain/Modulator Part)

Determines the Part used for Side Chain/Modulator for Master Effect. This is not available when you select the same Part or "Master" as the Modulator Part. **Settings:** Part 1–16, A/D, Master, Off

Effect Parameter

Editable parameters differ depending on the selected Effect Types. For details on the editable Effect parameters for each Effect Type, see the Data List PDF document. Also, for details on the description for each Effect parameter, see the Synthesizer Parameter Manual PDF document.

Reference	Perfor	rmance	Edit	Search	Uti	lity	Live Set
		Normal F	Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/A	udio
Master E	Q (Master E	qualizer)					non/Audio Edit
	-					Com	nmon/Audio
From this dis	splay you can s	et parameters related to	the Master EQ.			(General
Operation		NCE (HOME)] \rightarrow [EDIT] \rightarrow	[Effect] → [Master	r EOl		4	Audio In
operation							Mixing
	Master	EQ Switch					Routing
						-	Ins A
- m	🚹 Edit - Comn	mon/Audio	FX	, , ~ ∭	140 🏢 🔅		Ins B
		+24					EQ
General	Routing	+12				I	Motion Seq
		0					Common
Audio In	Variation	-12					Lane
Mathem		20 50 100	200 500 1	k 2k 5	k 10k 20k	C	Control
Motion Seq	Reverb	Low Gain Lo Mid Gain	Mid Gain	Hi Mid Gain	High Gain		Control Assign
		+OdB +OdB	+0dB	+0dB	+OdB	_	Control Number
Control	Master FX	Low Freq Lo Mid Freq	Mid Freq	Hi Mid Freq	High Freq	E	Effect
			_				Routing
Effect	Master EQ	80Hz 200Hz	500Hz	3.2kHz	8.0kHz		Variation
		Lo Mid Q	Mid Q	Hi Mid Q			Reverb

Shelf

High Shape

Peak

Master EQ Switch

Determines whether the Master EQ is active or not. **Settings:** Off, On

Shelf

Low Shape

Low Gain (Master EQ Low Gain)

Determines the level gain of the Master EQ Low band. **Settings:** -12dB – +12dB

Lo Mid Gain (Master EQ Low Mid Gain)

Determines the level gain of the Master EQ Low Mid band. **Settings:** -12dB – +12dB

Mid Gain (Master EQ Mid Gain)

Determines the level gain of the Master EQ Mid band. **Settings:** -12dB - +12dB

Hi Mid Gain (Master EQ High Mid Gain)

Determines the level gain of the Master EQ High Mid band. **Settings:** -12dB – +12dB

High Gain (Master EQ High Gain)

Determines the level gain of the Master EQ High band. **Settings:** -12dB – +12dB

Low Freq (Master EQ Low Frequency)

Determines the frequency for the Master Low band. **Settings:** 32Hz–2.0kHz

Master FX
Master EQ
USB Monitor

eference	Performance	Edit	Search	Utility		Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audi	io
• •	Master EQ Low Mid Fr frequency for the Master	• • • •			Comme	on/Audio Edit non/Audio
Mid Freq (Mas	ster EQ Mid Frequency	••				eneral idio In
Determines the fine Settings: 100Hz-10	frequency for the Master 10kHz	Mid band.				Mixing Routing
-						Routing
• •	Master EQ High Mid Fr frequency for the Master	• • • •				Ins B
Settings: 100Hz-10		light who barre.				EQ
High Freq (Ma	aster EQ High Frequer	nov)			Мо	otion Seq
• • •	frequency for the Master	• •				Common
Settings: 500Hz-10		0				Lane
Low Q (Master	r FQ I ow Q)				Co	ontrol
•	EQ bandwidth of the Mas	ster Low band. This is ϵ	available only whe	n the Master EQ Low		Control Assign
Shape (below) is	s set to "Peak."		-			Control Numbe
Settings: 0.1–12.0	<i>I</i>				Effe	ect
Lo Mid Q (Mas	ster EQ Low Mid Q)					Routing
•	EQ bandwidth of the Mas	ster Low Mid band.				Variation
Settings: 0.1-12.0	J					Reverb
Mid Q (Master	r FQ Mid Q)					Master FX
•	EQ bandwidth of the Mas	ster Mid band.				Master EQ
Settings: 0.1-12.0)				US	B Monitor
Hi Mid Q (Mas	ster EQ High Mid Q)					

Determines the EQ bandwidth of the Master High Mid band. **Settings:** 0.1–12.0

High Q (Master EQ High Q)

Determines the EQ bandwidth of the Master High band. This is available only when the Master EQ High Shape (below) is set to "Peak."

Settings: 0.1–12.0

F

Low Shape (Master EQ Low Shape) High Shape (Master EQ High Shape)

Determines whether the equalizer type used is Shelving or Peaking. The Peaking type attenuates/boosts the signal at the specified Frequency setting, whereas the Shelving type attenuates/boosts the signal at frequencies above or below the specified Frequency setting. This parameter is available only for the LOW and HIGH frequency bands.

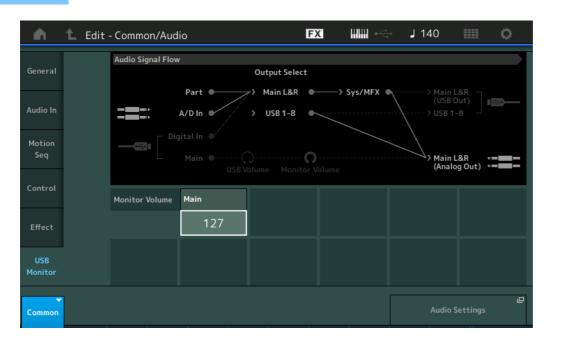
Settings: Shelf (Shelving Type), Peak (Peaking Type)

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Comm	on/Audio

USB Monitor

From the USB Monitor display, you can adjust the Audio Input level from the [USB TO HOST] terminal. **NOTE** USB Main Monitor Volume is stored as Performance Data.

Operation [PERFORMANCE (HOME)] → [EDIT] → [USB Monitor]



Common/Audio General Audio In Mixing Routing Ins A Ins B EQ **Motion Seq** Common Lane Control **Control Assign Control Number** Effect Routing

Variation Reverb Master FX Master EQ

USB Monitor

Common/Audio Edit

USB Main Monitor Volume

Adjusts the Audio signal level which is input from the [USB TO HOST] terminal and output to the OUTPUT [L/MONO]/[R] jacks. Settings: 0–127

Audio Settings

Calls up the Audio I/O display in Utility.

Search

Name Search

Utility

Category Search

The Performances/Arpeggios/Waveforms are conveniently divided into specific Categories. The categories are divided based on the general instrument type or sound characteristics. The Category Search function gives you quick access to the sounds you want.

The Favorite function has been added, giving you quick access to desired sounds and Arpeggios. **NOTE** You can filter the Performance List by Favorite in the Part Category Search and in the Performance Merge, but you cannot turn the Favorite icon on/off from the search displays.

Performance Category Search

From the Performance Category Search display you can search and select the Performance.

In case of Performance Category Search

Operation

[PERFORMANCE (HOME)] → [CATEGORY] (Performance Category Search) or

Touch the Performance Name → Select [Category Search] from the displayed menu

n t	Performa	nce Catego	ory Search		FX		ج J	40	0
Main	Bank/Favor All	ite	▼ Attrib All	ute	•	ρ			[Τ]
	Piano	Keyboard	Organ	Guitar	Bass	Strings	Brass	Woodwind	No Assign
Sub	Syn Lead	Pad/Choir	Syn Comp	Chromatic Perc	Drum/Perc	Sound FX	Musical FX	Ethnic	Init
All	Analog	Digital	Нір Нор	Dance	Rock/Pop	R&B/ Hip Hop	Electronic	Jazz/World	No Assign
Catatoni	x	Eleck	tronic Cha	t	Freaky Da	DCOK	Elvis	ng Dub	
							FIYI		
lluminato	Rum2 me	Wave	Runner MV			RUM2+FM-X	n in	Rum2+F ection Twir	
*	or Auma ise Vocoder	Huge	Runner MW		 SuperGlide Bleep Lead 	er MW DA	Refle	(AUM2+F	nkle IIIIIIIIII Je
*	or Auma IIII ise Vocoder Auma IIIII	Huge	Runner MW	DA 300	 SuperGlide Bleep Lead 	er MW DA	Refle Detu	Rum2+= ection Twir Rum2 uned Vintag	ıkle

Favorite icon Performance list

Bank/Favorite (Performance Bank Select/Favorite)

Filters the Performance List by Bank or Favorite. When Favorite is selected, only Performances having a Favorite icon are listed.

Settings: All, Favorite, Preset, User, Library Name (when the Library file is read)

NOTE When the Category Search display is selected, pressing the [CATEGORY] button repeatedly switches Banks among All, Favorite, Preset, User, Library (when the Library file is read). Holding down the [CATEGORY] button lets you go back to All.

Attribute (Performance Attribute)

Filters the Performance List by Attribute (page 159). This is not available for Part Category Search. **Settings:** All, AWM2, FM, AWM2+FM-X, MC, SSS, Single, Multi

Name Search (Performance Name Search)

Searches the Performance by inputting a part of the Performance Name. **Settings:** See the Data List PDF document.

Performance Category
Arp Category
Waveform
Rhythm Pattern

Search

Utility

Main (Performance Main Category)

Settings: See the Data List PDF document.

Sub (Performance Sub Category)

Settings: See the Data List PDF document.

Audition (Audition Switch)

Determines whether the Audition phrase is played back or not. This is not available when "Audition Lock" (page 193) is set to on in the Utility display. **Settings:** Off, On

Sort (Sort Order)

Determines the Sort Order of the Performance List.

Settings: Default, Name, Date

Name: Sorts by name. When the lower arrow is displayed, the List is arranged in ascending order (A to Z). When the upper arrow is displayed, the List is arranged in descending order.

Date: Sorts in order of storing. When the lower arrow is displayed, the List is arranged in descending order (newer to older). When the upper arrow is displayed, the List is arranged in ascending order.

Favorite Set / Unset

Enters (Sets) or cancels (Unsets) the Favorite icon to the currently selected Performance. This is not available when the cursor is not on the Performance List.

NOTE You can also set/unset the Favorite icon from the menu which is displayed by touching the Performance name on the Performance Play (Home) display.

Favorite All Clear

Clears all Favorite icons on Performances. This is available only when at least one Performance has a Favorite icon.

Sea	arch
	Performance Category
-	Arp Category
	Waveform
	Rhythm Pattern

Search

Utility

In case of Part Category Search

You can select any Part in a Performance and assign the sound of the Part to another. When "Mixing" of the "Parameter with Part" (Param. with Part) setting is set to off, you can change sounds continuously, using the current setting values for the Part such as Volume, Pan and Note shift.



[PERFORMANCE (HOME)] → (When the Part to which any sounds are assigned is selected) Select the Part Name → [SHIFT]+[CATEGORY] (Part Category Search) or

(When the Part to which any sounds are assigned is selected) Touch the Part Name \rightarrow Select [Category Search] from the displayed menu

When the selected Part and all succeeding Parts have no sound assigned (or are empty), executing the operation above opens the Performance Merge display.

n t	Part1 - Ca	ategory Se	arch		FX		i	40	¢ I
Main	Bank/Favor All	ite	▼ Attrib All	ute		Source Part 1	م		[7]
AII	Piano	Keyboard	Organ	Guitar	Bass	Strings	Brass	Woodwind	No Assign
Sub	Syn Lead	Pad/Choir	Syn Comp	Chromatic Perc	Drum/Perc	Sound FX	Musical FX	Ethnic	Init
All	Acoustic	Layer	Modern	Vintage	Rock/Pop	R&B/ Hip Hop	Electronic	Jazz/World	No Assign
CFX + FM E	EP	CFX +	- FM EP 2		CFX Conce	ert	CFX	Stage	
CFX Pop/R	ock	CFX P	opStudio	Grand	CFX Mood	у	CFX	& Pad	
CFX & Pad	2	CFX 8	Orch		CFX & Orc	h 2	CFX	Shrine	
CFX Shrine	2	CFX P	added		CFX Padde	ed 2	CFX	& Pad & Su	b
Solo	Sort Default	Name	Date	Param. with Mixing	part Arp/MS	Scene	Zone	Page	~

Source

Determines which Part of the selected Performance will be assigned to the Performance being edited. **Settings:** Part 1–16

Solo (Solo Switch)

Determines the Solo function is active (On) or not (Off.) When this is set to on and any sound is assigned to the Part, only the Part will be sounded.

Settings: Off, On

Param. with part (Parameter with Part)

Determines whether or not to read and use the parameter values for the next Performance. When the set of parameters is set to off, the current setting values are continuously used even when the next Performance is selected.

The "Zone" parameter is available only when "Zone Master" (page 193) is set to on in the Utility display. **Settings:** Off, On

Performance Category
Arp Category
Waveform
Rhythm Pattern

R	eı	e	re	n	C	5

Search

Utility

Live Set

Performance Merge

From the Performance Merge display, you can collectively assign multiple Parts from the selected Performance to empty Parts in the Performance currently being edited. For example, you can merge four Piano Parts in one Performance and two Strings Parts in another Performance to create even more richly textured, layered sounds.

This allows you to separately mute original Parts and newly added Parts.

Operation [PERFORMANCE (HOME)] → (the selected Part and all Parts that follow must not be assigned) → [SHIFT] + [CATEGORY] or touch the "+" icon

Main	Bank/Favorito All	2	▼ Attrib All	ute		Source ` A	م -		
All	Piano	Keyboard	Organ	Guitar	Bass	Strings	Brass	Woodwind	No Assig
Sub	Syn Lead	Pad/Choir	Syn Comp	Chromatic Perc	Drum/Perc	Sound FX	Musical FX	Ethnic	Init
	RUM2+FM-X (III II)		- FM EP 2			AWM2		Stage RUN2	
CFX Pop/R			Rum2+Fm opStudioG		CFX Mood			Auma & Pad	
	AWM2		AUM2			, Awn2		AMM2	
	2	CFX 8	، Orch		CFX & Orc	h 2	CFX	Shrine	
			AMW2			AUM2 💷 🗉		AMW2+F	
CFX & Pad	RUM2 🗰 📰								ıh
CFX & Pad		CFX P	added		CFX Padde	ed 2	CFX	& Pad & Su	u
CFX & Pad CFX Shrine		CFX P	added	×		ed 2 Aum2+Fm-X	CFX	A Pad & Su Ruma	

Additional Part Mute

Original Part Mute

Source

Determines which Part of the selected Performance will be assigned to the Performance being edited. **Settings:** All, Part 1–16

All: All non-empty Parts of the selected Performance are assigned to available empty Parts.

Part 1-16: Only the sound from the specified Part is assigned to the selected Part.

Original Part Mute

When set to OFF, all of the Parts existed before adding any Parts in the Performance Merge display will be muted.

Settings: Off, On

Additional Part Mute

When set to OFF, only the Part added in the Performance Merge display will be muted. **Settings:** Off, On

Performance Category
Arp Category
Waveform
Rhythm Pattern

Search

Utility

Arpeggio Category Search (Arp Category Search)

From the Arpeggio Category Search display you can search and select Arpeggio Types.

- Operation
- Arpeggio related display \rightarrow Part selection \rightarrow [CATEGORY]

n t	Bank/Favor	rp1 - Cateo ite			FX	• الااااا		40	. 0
Main All	Piano	Keyboard	Organ	Guitar	Bass	Strings	Brass	Woodwind	No Assign
Sub	Syn Lead	, Pad/Choir	Syn Comp	Chromatic Perc	Drum/Perc	Sound FX	Musical FX	Ethnic	Control / HybridSee
All	Rock	Ballad	Нір Нор	Modern R&B	House / Dance Pop	Jazz / Swing	Latin	General	
	Pop Rock	Chillout / Ambient	Funk	Classic R&B	Techno / Trance	D&B / Breakbeats	World	No Assign	
MA_Brea	kbeats 2 _N		reakbeats	2_N	MC_Break	beats 2 _N	I FA_I	Breakbeats	; 2 _N
+ FB_Breakbeats 2 _NBreakbeats 2				2	BA_Breakbeats 2 _N MA_EDM Ballad Lea			d Lead	
MA_Squad Theme _N IA_Arptelligence _N					MA_Wind Dancer _N MA_			_Landing Gear _N	
Sort					Favorite			Page	

Favorite icon

Arpeggio Type list

Bank/Favorite (Performance Bank Select/Favorite)

Filters the Performance List by Bank or Favorite. When Favorite is selected, only Performances having a Favorite icon are listed.

Settings: All, Favorite, Preset, User, Library Name (when the Library file is read)

When the Category Search display is selected, pressing the [CATEGORY] button repeatedly switches Banks among All, Favorite, Preset, User, Library (when the Library file is read). Holding down the [CATEGORY] button lets you go back to All.

Name Search (Arpeggio Name Search)

Searches for an Arpeggio by inputting a part of the Arpeggio Name. **Settings:** See the Data List PDF document.

Main (Arpeggio Category)

Settings: See the Arpeggio Category List (page 11).

Sub (Arpeggio Sub Category)

Settings: See the Arpeggio Sub Category List (page 11).

Sort (Sort Order)

Determines the Sort Order of the Arpeggio Type List.

Settings: Default, Name, Date

Name: Sorts by name. When the lower arrow is displayed, the List is arranged in ascending order (A to Z). When the upper arrow is displayed, the List is arranged in descending order.

Date: Sorts in order of loading. When the lower arrow is displayed, the List is arranged in descending order (newer to older). When the upper arrow is displayed, the List is arranged in ascending order.

Favorite Set / Unset

Enters (Sets) or cancels (Unsets) the Favorite icon to the currently selected Performance. This is not available when the cursor is not on the Performance List.

_	Performance Category						
	Arp Category						
	Waveform						
	Rhythm Pattern						

Reference	Performance	Edit	Search	Utility	Live Set
Favorite All Cle			when at least one Porfe		Search
Favorite icon.	Clears all Favorite icons on Performances. This is available only when at least one Performance has a Favorite icon.				
Page (Page Se	lect)				Waveform
When Files in "Fil- the pages.	le Select" are displayed in	n multiple pages, you w	ill need to use this butto	n to scroll through	Rhythm Pattern

Search

Utility

Waveform Category Search (Waveform Search)

From the Waveform Category Search display you can search and select the Waveforms.

Operation Waveform related display

y → Part	selection \rightarrow	Waveform	selection ->	[CATEGORY]	

							Name	Search	
<u> </u>	Part1 - El	em1 - Wav	eform Sea	rch	FX	L	⊷ J <mark>1</mark>	40	•
Main	Bank/Favor All	ite	*			م			י]
	Piano	Keyboard	Organ	Guitar	Bass	Strings	Brass	Woodwind	No Assign
Sub	Syn Lead	Pad/Choir	Syn Comp	Chromatic Perc	Drum/Perc	Sound FX	Musical FX	Ethnic	
All	SE	Scratch	MegaFX						
Grain3 St		Grain	3 L		Grain3 R		Mov	ing Harp S	t
A Moving Har	трL		ng Harp R		Metal Mod	ł	Digi	tal Wind	
Digi Voice I	Mod	thni	c Rhythm	Rv All	Ethnic Rh	ythm Rv-1		nic Rhythm	ı Rv-2
Ethnic Rhy	thm Rv-3	thni	c Rhythm	Rv-4	Ethnic Rh	ythm Rv-5	6 Ethr	nic Rhythm	ı Rv-6
	Sort Def	ault Nar	ne Dat	e	Favorite Set	All Clea		Page	~
	F	avorite ico	n	Wavefo	orm list				

Bank/Favorite (Performance Bank Select/Favorite)

Filters the Performance List by Bank or Favorite. When Favorite is selected, only Performances having a Favorite icon are listed.

Settings: All, Favorite, Preset, User, Library Name (when the Library file is read)

When the Category Search display is selected, pressing the [CATEGORY] button repeatedly switches Banks among All, Favorite, Preset, User, Library (when the Library file is read). Holding down the [CATEGORY] button lets you go back to All.

Name Search (Waveform Name Search)

Searches for a Waveform by inputting a part of the Waveform Name. Settings: See the Data List PDF document.

Main (Waveform Category)

Settings: See the Data List PDF document.

Sub (Waveform Sub Category)

Settings: See the Data List PDF document.

Sort (Sort Order)

Determines the Sort Order of the Waveform List.

Settings: Default, Name, Date

Name: Sorts by name. When the lower arrow is displayed, the List is arranged in ascending order (A to Z). When the upper arrow is displayed, the List is arranged in descending order.

Date: Sorts in order of storing. When the lower arrow is displayed, the List is arranged in descending order (newer to older). When the upper arrow is displayed, the List is arranged in ascending order.

Favorite Set / Unset

Enters (Sets) or cancels (Unsets) the Favorite icon to the currently selected Performance. This is not available when the cursor is not on the Performance List.

Search

Performance Category
Arp Category
Waveform
Rhythm Pattern

Reference	Performance	Edit	Search	Utility	Live Set
Favorite All Cl Clears all Favorit Favorite icon.	lear te icons on Performances.	. This is available only v	vhen at least one Perfor	rmance has a	Search Performance Category
	Page (Page Select) When Files in "File Select" are displayed in multiple pages, you will need to use this button to scroll through				Arp Category Waveform
the pages.	e Select are displayed in	multiple pages, you wi	II need to use this dullo	n to scroll through	Rhythm Pattern

leference Per	rformance	Edit Se	arch Utility	Live Set
Rhythm Patterr	ı			Search
Use this function to add				Performance Catego
				Arp Category
Operation [RHYTHM	PART]			Waveform
		Ν	lame Search	Rhythm Pattern
n 🕇 Part7-I	Rhythm Pattern		J 140 🏢 🔅	
Bank/Fave All	orite 🔻	م	[7]	
Real Drums Kit	Real Drums Kit 2	New Oak Custom Kit	NewMapleCustom Kit	
BeechwoodSnare Kit	t BeechwoodSnareKit2	Real Brushes Kit	Jazz Brushes Kit	
Jazz Sticks Kit	D'elo Kit	T's EDM Kit	T's EDM Kit 2	
T's Hip Hop Kit	T's Hip Hop Kit 2	Trap Kit	Trap Kit 2	
Mute Sor			Page	
Org D	efault Name Date		~	
Arp				
Envelope			Cancel	
Follower			Cancel	
	Bbyth	n Pattern List		

Rhythm Pattern List

Bank/Favorite (Rhythm Pattern Bank Select)

Filters the Rhythm Pattern List by Bank or Favorite.

Settings: All, Favorite, Preset, User, Library Name (when the Library file is read)

Name Search (Rhythm Pattern Name Search)

Searches the Rhythm Patterns by inputting a part of the Rhythm Pattern Name.

Original Part Mute

When set to OFF, all of the Parts existed before adding any Parts in the Rhythm Pattern display will be muted.

Settings: Off, On

Additional Part Mute

When set to OFF, only the Part added in the Rhythm Pattern display will be muted. **Settings:** Off, On

Sort (Sort Order)

Determines the Sort Order of the Rhythm Pattern List.

Settings: Default, Name, Date

Name: Sorts by name. When the lower arrow is displayed, the List is arranged in ascending order (A to Z). When the upper arrow is displayed, the List is arranged in descending order.

Date: Sorts in order of storing. When the lower arrow is displayed, the List is arranged in descending order (newer to older). When the upper arrow is displayed, the List is arranged in ascending order.

Page (Page Select)

When Files in "File Select" are displayed in multiple pages, you will need to use this button to scroll through the pages.

Cancel

Touching this button or pressing the [RHYTHM PATTERN] button cancels the selection and closes the Rhythm Pattern display.

Reference	Performance	Edit	Search	Utility	Live Set

Arpeggio Tab

n 🖒 Part7 - Rhytł	nm Pattern	FX IIII 兴	J 140 💷 🔅
Bank/Favorite All	*	م	[7]
Real Drums Kit	Real Drums Kit 2	New Oak Custom Kit	NewMapleCustom Kit
BeechwoodSnare Kit	BeechwoodSnareKit2	Real Brushes Kit	Jazz Brushes Kit
Jazz Sticks Kit	D'elo Kit	T's EDM Kit	T's EDM Kit 2
T's Hip Hop Kit	T's Hip Hop Kit 2	Trap Kit	Trap Kit 2
Mute Sort Org Add Default	Name Date		Page
Category Arp Dr/Pc	Sub Category Na Pop Rock	me MA_Pop Rock 1	TempoVolume140120
Envelope Follower	3 4	5 6	7 8

Arpeggio Tab

Arp Category (Arpeggio Category) Arp Sub Category (Arpeggio Sub Category) Arp Name (Arpeggio Name) Arp Select (Arpeggio Select)

Same as the Individual display for Arpeggio (page 85).

Tempo

Determines the Rhythm Part tempo. **Settings:** 5–300

Volume

Determines the Rhythm Part volume. **Settings:** 0–127

Search

Performance Category
Arp Category
Waveform
Rhythm Pattern

Reference	Performance	Edit	Search	Utility	Live Set

Envelope Follower Tab

n 🖒 Part7 - Rhytł	ım Pattern	FX IIIII 🛹	J 140 💷 🔅
Bank/Favorite A	*	م	[7]
Real Drums Kit	Real Drums Kit 2	New Oak Custom Kit	NewMapleCustom Kit
BeechwoodSnare Kit	BeechwoodSnareKit2	Real Brushes Kit	Jazz Brushes Kit
Jazz Sticks Kit	D'elo Kit	T's EDM Kit	T's EDM Kit 2
T's Hip Hop Kit	T's Hip Hop Kit 2	Trap Kit	Trap Kit 2
Mute Sort Org Add Default	Name Date		Page
Arp Envelope Fo	ollower 7 Gain OUT -24.0dB	Edit ••• > Destination	Volume
Envelope Follower Standard	Polarity Uni Bi	Ratio Param1 -32 5	Cancel

Envelope Follower Tab

Envelope Follower Switch

Determines whether the Envelope Follower is used (on) or not (off). **Settings:** Off, On

Envelope Follower Gain

Same as the parameter in the Envelope Follower display (page 21).

Edit

Opens the Envelope Follower setting display.

Destination

Settings: Volume, Cutoff, Resonance, Pitch, Pan, Reverb Send, Variation Send, LFO Speed, LFO Depth 1, LFO Depth 2, LFO Depth 3

Curve Type Curve Polarity

Curve Ratio

Same as the parameters in the Control Assign display (page 100).

Curve Parameter 1 Curve Parameter 2

Settings: 0–127 NOTE This parameter is not available depending on the Curve Type.

Search

Performance Category
Arp Category
Waveform
Rhythm Pattern

Performance

Edit

Search

Utility

Live Set

Utility

The Utility display has four tabs; the Setting tab, the Contents tab, the Tempo Settings tab, the Effect Switch tab, and the Other Info tab. You can make various settings for the entire system.

Settings

Sound

From the Sound display you can make overall settings for the sounds output from the instrument.

Operation $[UTILITY] \rightarrow [Settings] \rightarrow [Sound]$

A	🕇 Utili	ty		FX	<	J 140		⊅
Settings	Sound							
Contents	Quick	Tone Generator	Volume	Note Shift	Tune			
contents	Setup		127	+Osemi	+0.0	440.0Hz		
Tempo Settings	Audio I/O		Sustain Pedal	•				
Effect	MIDI		FC3A (H	lalf On)				
Switch	1/0	Keyboard	Octave Shift	Transpose	Velocity Curve		Fixed Veloc	ity
Other Info	Advanced		+0	+0semi	Fixed		64	
	System							

Tone Generator Volume

Determines the overall volume of the instrument. **Settings:** 0–127

Tone Generator Note Shift

Determines the amount (in semitones) by which the pitch of all notes is shifted. **Settings:** -24semi – +24semi

Tone Generator Tune

Determines the fine tuning of the instrument's overall sound (in 0.1 cent steps). **Settings:** -102.4 – +102.3

Sustain Pedal (Foot Switch Sustain Pedal Select)

Selects the Foot switch type connected to the FOOT SWITCH [SUSTAIN] jack on the rear panel.

• When the FC3 or FC3A is used:

When you connect an optional FC3 or FC3A (equipped with the half-damper feature) for producing the special "half-damper" effect (as on a real acoustic piano), set this parameter to "FC3A (Half on)." If you don't need the half-damper feature or want to disable it while still using an FC3 or FC3A, set this parameter to "FC3A (Half off)."

• When the FC4, FC4A, or FC5 is used:

Select "FC4A/FC5." The FC4, FC4A, and FC5 are not equipped with the half-damper feature.

Settings: FC3A (Half On), FC3A (Half Off), FC4A/FC5

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.

Uitlity	
Se	ettings
	Sound
	Quick Setup
	Audio I/O
	MIDI I/O
	Advanced
	System
Co	ontents
	Load
	Store / Save
	Data Utility
	Library Import
Те	mpo Settings
Ef	fect Switch
Ot	her Info
	Shift Function
	Legal Notices

Reference

Search

Utility

Live Set

Uitlity

Settings

Sound

Quick Setup

Audio I/O

MIDI I/O

System

Contents

Load

Advanced

Store / Save

Data Utility

Tempo Settings

Effect Switch

Other Info

Library Import

Shift Function

Legal Notices

►

Keyboard Octave Shift

Determines the amount in octaves by which the range of the keyboard is shifted up or down. This parameter is linked with the OCTAVE [-]/[+] buttons on the panel.

Settings: -3 - +3

Keyboard Transpose

This parameter is used to transpose the current zone in units of one semitone.

Settings: -11semi - +11semi

NOTE If you transpose beyond the note range limits (C -2 - G8), notes in the adjacent octaves will be used.

Keyboard Velocity Curve

These 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 provides increased response, especially for higher velocities.

Wide: This curve accentuates your playing strength by producing lower velocities in response to softer playing and louder velocities in response to harder playing. As such, you can use this setting to expand your dynamic range.

Fixed: This setting produces the same amount of sound change (set in Keyboard Fixed Velocity below), no matter what your playing strength. The velocity of the notes you play are fixed at the value set here.

Keyboard Fixed Velocity

The Fixed curve can be used to send a fixed velocity to the tone generator regardless of how hard or soft you play the keyboard. This parameter is only available if you select the "Fixed" Keyboard Velocity Curve above.

Settings: 1-127

Operation

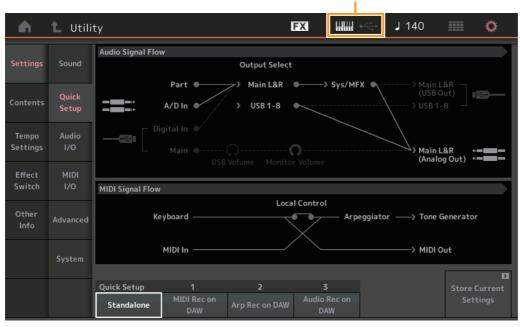
Quick Setup

Using Quick Setup can instantly call up appropriate sequencer-related panel settings by selecting convenient preset setups, allowing you to simultaneously and instantly set a variety of important sequencer-related parameters.

 $[\mathsf{UTILITY}] \rightarrow [\mathsf{Settings}] \rightarrow [\mathsf{Quick Setup}],$

(SHIFT] + [UTILITY],

or Touch the QUICK SETUP icon



QUICK SETUP icon

MODX Reference Manual

Reference	Performance	Edit	Search	Utility	Live Set

Audio Signal Flow

Indicates the Audio signal connections. The connections will change depending on the status of the [USB TO HOST] terminal and the general settings of the instrument.

MIDI Signal Flow

Indicates the MIDI signal connections. The connections will change depending on the general settings of the instrument.

Quick Setup

Determines the Quick Setups.

Settings: Standalone, 1-3

The parameters for Quick Setups are as follows.

Audio Settings	A/D Input Gain
	L&R Gain
	USB L&R Gain
	USB 1–8 Gain
	Direct Monitor Switch
MIDI Settings	MIDI In/Out
	Local Control
	Arp MIDI Out
	MIDI Sync
	Clock Out
	Receive/Transmit Sequencer Control
	Controller Reset
	FS CC Number
	Super Knob CC Number
	Scene CC Number
Part Output Settings	Part 1–16 Output Select
	A/D In Output Select
	Digital In Output Select

Uitlity			
	Settings		
		Sound	
		Quick Setup	
		Audio I/O	
		MIDI I/O	
		Advanced	
		System	
	Сс	ontents	
		Load	
		Store / Save	
		Data Utility	
		Library Import	
	Те	mpo Settings	
	Ef	fect Switch	
	Ot	her Info	
		Shift Function	

Legal Notices

For details about parameters related to Audio Settings, see "Audio I/O" (page 190). For details about parameters related to MIDI Settings, see "MIDI I/O" (page 191).

The default settings for Quick Setups are as follows.

Standalone

Use this setting when this instrument is to be used alone or as the master clock source for other equipment.

Local Control	Direct Monitor	Output Select	Arp MIDI Out
On	On	Main L&R	Off

MIDI Rec on DAW

Use this setting when recording this instrument's performance (not including Arpeggio data) to the DAW software.

Local Control	Direct Monitor	Output Select	Arp MIDI Out
Off	On	Main L&R	Off

Arp Rec on DAW

Use this setting when recording this instrument's performance including Arpeggio data to the DAW software.

Local Control	Direct Monitor	Output Select	Arp MIDI Out
Off	On	Main L&R	On

Reference

Audio Rec on DAW

Use this setting when recording the signals from the tone generator and the A/D INPUT [L/MONO]/[R] jacks separately to DAW software, and playing the signals from the OUTPUT [L/MONO]/[R] jacks directly.

Local Control	Direct Monitor	Output Select	Arp MIDI Out
On	Off	Depends on the Part	Off

The Output settings for Individual are as follows.

Performance

Part 1 Output Select	Main L&R
Part 2 Output Select	USB 1&2
Part 5 Output Select	USB 7&8
Part 16 Output Select	Main L&R
A/D In Output Select	Main L&R
Digital In Output Select	Main L&R

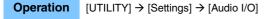
Store Current Settings

Stores the edited settings as 1-3 of "QuickSetup."

Audio I/O

Effect Switch

From the Audio I/O display you can set the parameters related to Audio Input and Output.



Audio Signal Flow

Part @

A/D In 🌒

Main 🔍

A/D Input

Main L&R

Digital In

Utility

Sound

Ouick

Advanced

Output

A/D Input (A/D Input Gain)

When using the A/D INPUT [L/MONO]/[R] jacks, this determines the input source, microphone (Mic) or Line.

USB Main

Settings: Mic, Line

Mic: Intended for low output equipment, such as a microphone.

Line: Intended for high output equipment, such as a keyboard, synthesizer, or CD player.

NOTE A guitar or bass having active pickups can be directly connected. However, when using passive pickups, connect the instrument via an effect device.

190

Uitlity			
Se	ettings		
	Sound		
	Quick Setup		
	Audio I/O		
	MIDI I/O		
	Advanced		
	System		
Co	ontents		
	Load		
	Store / Save		
	Data Utility		
	Library Import		
Те	mpo Settings		
Ef	fect Switch		
Ot	her Info		
	Shift Function		
	Legal Notices		

Live Set

Edit

Search

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-> Svs/MFX (

FΧ

C

Monitor Volume

USB 1-8

Output Select

Main L&R

USB 1-8

С USB Volume

Line

J 90

Main L&R (USB Out)

Main L&R •== (Analog Out) •==

Direct Monitor

ON

> USB 1-8

Ö

Utility

eference	Performance	Edit	Search	Utility		Live Set
•	ain L&R Output Gain)			ι	Jitlity	
	output gain of the OUTPUT	۲ [L/MONO]/[R] jacks	3.	-	Se	ettings
Settings: -6dB, +0	лdB, +6dB, +12dB					Sound
USB Main (US	SB Main L&R Output Ga	ain)				Quick Setup
Determines the c	output gain of the Main L&I	R channel of the [US	B TO HOST] terminal.			Audio I/O
Settings: -6dB, +0	JdB, +6dB, +12dB					MIDI I/O
USB 1-8 (USB	3 1–8 Output Gain)					Advanced
•	output gain of 1-8 channel	Is of the [USB TO HC	ST1 terminal.			System
Settings: -6dB, +0	1 0	0 0 0 0 0 0			Сс	ontents
Direct Monito	r (Direct Monitor Switcl	• h)				Load
	ther or not the audio signal		e external device via the "	"Main I &R." "USB		Store / Save
Main" or "USB 1-	-8" channels also sounds f	from this instrument (I	Direct Monitoring). When	this is set to "on,"		Data Utility
	which is output via the "Ma					Library Import
	NO]/[R] jacks and [PHONE t Monitor Switch is automat		ternal device is not conne	ected via USB	Те	empo Settings
Settings: Off, On	WORRON OWNER TO determine	lically turned on.			Ef	fect Switch
-					01	ther Info
Monitor Volum						Shift Function
Opens the USB i	Monitor setting display (pa	ige 175).				Legal Notices
MIDI I/O						
From the MIDLI/	O display you can set para	ameters related to M				
	the Super Knob or switch S					

Operation	$[UTILITY] \rightarrow [Settings] \rightarrow [MIDI \ I/O]$	
Operation	[UTILITY] → [Settings] → [MIDI I/O]	

A	🕇 Utili	ty		FX	۱۱۱۱۱ 🛞) J 140	o	
Settings	Sound	MIDI Signal Flow		Least	antual			
Sectings		Key	Local Control Keyboard ————————————————————————————————————					
Contents	Quick Setup		MIDI In		DI Thru	> MIDI O	Dut	
Tempo Settings	Audio I/O	MIDI	MIDI IN/OUT	MIDI Thru	Switch	Local Control	Arp MIDI Out	
Effect	MIDI		MIDI USB	OFF		ON	OFF	
Switch	1/0	Sync	MIDI Sync 🔻	Clock Out	Song Play/Stop	Receive	Transmit	
Other Info	Advanced		MIDI	ON		ON	ON	
		Controller	Hold/Reset	FS Assign	Super Knob CC	Scene CC		
	System		Hold Reset	Arp SW	95	92		
						Control	₽ Number	

MIDI IN/OUT

Determines which physical output/input terminal(s) will be used for transmitting/receiving MIDI data. **Settings:** MIDI, USB

NOTE The two types of terminals above cannot be used at the same time. Only one of them can be used to transmit/ receive MIDI data.

MIDI Thru

Determines whether the MIDI [OUT] terminal will be used as a MIDI Thru terminal or not. **Settings:** Off, on

		5	

Determines the status of the controllers (Modulation Wheel, Aftertouch, Foot Controller, Breath Controller, Knobs, etc.) when switching between Performances. 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) Sett

Minimum
Maximum
Off
Center
Maximum
Maximum
Off
Off
0 (minimum) when Lane Motion Sequencer Polarity is set to "Unipolar" 64 (center) when Lane Motion Sequencer Polarity is set to "Bipolar"

FS Assign (Foot Switch Assign Control Number)

Determines the Control Change number generated by using the Foot switch connected to the FOOT SWITCH [ASSIGNABLE] jack. Even when the instrument receives MIDI message with the same Control Change Number specified here from the external equipment, the instrument assumes that the message is generated by using the Foot switch.

Settings: Off, 1-95, Arp SW, MS SW, Play/Stop, Live Set+, Live Set-, Oct Reset

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 instrument 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

Arp MIDI Out (Arpeggio MIDI Out)

Determines whether to output MIDI data of Arpeggio playback or not. Settings: Off, On

Performance

MIDI Sync

You can set various parameters related to MIDI clock and synchronization here.

Determines whether Arpeggio/Motion Sequencer/Song playback will be synchronized to the instrument's internal clock, an external MIDI clock, or the Audio signal input from the A/D INPUT [L/MONO]/[R] jacks. Settings: Internal, MIDI, A/D In

Internal: Synchronization to internal clock. You can use this setting when this tone generator is to be used alone or as the master clock source for other equipment.

MIDI: Synchronization to a MIDI clock received from an external MIDI instrument via MIDI. Use this setting when the external sequencer is to be used as master.

A/D In: Synchronization to the tempo of the Audio signal received via the A/D INPUT [L/MONO]/[R] jacks.

Clock Out

Determines whether MIDI clock messages will be transmitted via MIDI or not. Settings: Off, On

Receive (Receive Sequencer Control)

Determines whether the Sequencer Control signals—start and stop of Song—will be received via MIDI or not.

Settings: Off, On

Transmit (Transmit Sequencer Control)

Determines whether the Sequencer Control signals—start and stop of Song—will be transmitted to MIDI or not

Settings: Off, On

Hold/Reset (Controller Hold/Reset)

it setting. When this is set to these	
Hold, Reset	
If you select "reset," the controllers will be	reset to the following states/positions:
Ditch Dond	Center
Pitch Bend	Center
Modulation Wheel	Minimum
Aftertouch	Minimum
Foot Controller	Maximum
Foot Switch	Off
	Hold, Reset If you select "reset," the controllers will be Pitch Bend Modulation Wheel Aftertouch Foot Controller

Live Set

Uitlity

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Se	ettings
	Sound
	Quick Setup
	Audio I/O
	MIDI I/O
	Advanced
	System
С	ontents
	Load
	Store / Save
	Data Utility
	Library Import
Те	mpo Settings
Ef	fect Switch
Oi	her Info
	Shift Function
	Legal Notices

Edit

Search

eference	Performance	Edit	Search	Utility	Live Set	
Super Knob (CC (Super Knob Contro	I Change Numbe	r)		Uitlity	
	Control Change number ge				Settings	
	nessages with the same Co				Sound	
	instrument assumes that the t to "Multi," Channel 1 is use				Quick Setup	
	annel specified in "MIDI I/O				Audio I/O	
Settings: Off, 1-9	95				MIDI I/O	
NOTE When this	parameter is set to off, MIDI d	ata is transmitted by S	ysEx (System Exclusive) mes	ssages.	Advanced	
Scene CC (Sc	cene Control Change Nu	umber)			System	
•	Control Change Number ge		ig Scenes. Even when the	e instrument	Contents	
	nessage with the same Con				Load	
	instrument assumes that the	e message is genera	ated by switching Scenes		Store / Save	
Settings: Off, 1–9	ь 8 is selected depending on the	Control Change value			Data Utility	
	ene 1, 16–31: Scene 2, 32–47: \$			Scene 6, 96–111:		
	112–127: Scene 8				Library Import	
	same Control Change Number an exclamation mark (!) is shov				Tempo Settings	
	id changes to the Super Knob		Such a case, changes to so		Effect Switch	
		0			Other Info	
Control Numb					Shift Function	
Calls up the Col	ntrol Number display in the	Common/Audio Edit	i.		Legal Notices	
Advanced						
	nced display you can set the					
instrument and	an external device using or	ny the specified MID	i channel is also available	Э.		
Operation	$[UTILITY] \rightarrow [Settings] \rightarrow [Adva]$	ancedl				

Operation	$[UIILIIY] \rightarrow [Settings] \rightarrow [Advanced]$	

n	🕇 Utili	ty		FX	۵ الللل) J 140	¢
Settings	Sound						
Contents	Quick	Advanced Mode	Zone Master	Audition Lock	MIDI I/O Mode		MIDI I/O Ch.
Contents	Setup		ON	OFF	Multi	Single	Ch1
Tempo Settings	Audio I/O	MIDI	Device Number	Bank Select	Pgm Change	Receive Bulk	Bulk Interval
Effect	MIDI		All	ON	ON	On	Oms
Switch	I/O	Sequencer	Event Chase				
Other Info	Advanced		Off				
	System		Init On Boot OFF				Initialize Advanced Settings

Zone Master (Zone Master Switch)

Determines whether the Zone function is used (on) or not (off). **Settings:** Off, On

Audition Lock

Determines whether the Audition Lock is active or not. When this is set to On, the Audition function is not available.

Settings: Off, On

Reference

Search

Utility

Live Set

MIDI I/O Mode

Determines which MIDI I/O mode is used for data communication between this instrument and an external device.

Settings: Multi, Single

Multi: Transmits MIDI data such as Note On/Off messages for each Part.

Single: Transmits MIDI data using only the channel specified in "MIDI I/O Ch."

MIDI I/O Ch. (MIDI I/O channel)

Determines the MIDI channel to be used for data communication when "MIDI I/O Mode" is set to "Single." **Settings:** Ch1–16

When this parameter is set to "Single," Arpeggio data is not transmitted to the external device. When the Zone function is active, the Zone setting for the Performance is given priority over the "MIDI I/O Mode" setting. You can see which setting is active from the MIDI Signal Flow in the MIDI I/O display.

Device Number

Determines the MIDI Device Number. 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

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. **Settings:** Off, On

Pgm Change (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. **Settings:** Off, On

Receive Bulk

Determines whether or not Bulk Dump data can be received. **Settings:** Protect (not received), On (received)

Bulk Interval

Determines the interval time of the Bulk Dump transmission when a Bulk Dump Request is received. **Settings:** 0ms–900ms

Event Chase (Song Event Chase)

Event Chase allows you to specify which non-note data types are properly recognized during fast-forward and rewind operations. 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)

Init On Boot (Initialize User Data on Boot-up)

Determines whether the User Data is initialized (On) or not (Off) when the power of the instrument is turned on.

Settings: Off, On

Initialize Advanced Settings

Initializes the system settings edited in the Advanced display.

NOTICE

When the Initialize operation is executed, the target data and system settings you edited will be erased. Make sure you are not overwriting any important data. Be sure to save all important data to your USB flash drive before executing this procedure.

	2.0	11:000
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		Sound
		Quick Setup
		Audio I/O
		MIDI I/O
)		Advanced
		System
(Сс	ontents
		Load
		Store / Save
		Data Utility
		Library Import
1	Ге	mpo Settings
E	Efl	ect Switch
(Ot	her Info
		Shift Function
		Legal Notices

Reference

Performance

Edit

Search

Utility

Live Set

System

From the System display you can make global system settings for the instrument.

Operation [UTILITY] → [Settings] → [System]

n	🕇 Utili	ty		FX	< ₩₩ ~	→ J 140	¢				
Settings	Sound										
Contents	Quick Setup	Boot	Power on Mode	Power Option	Auto Power Off		ロ Calibrate Touch Panel				
Tempo Settings	Audio I/O	Initial Live Set	Bank	Page	Slot	D Set Current	D Initialize				
Effect	MIDI		Preset	1	1	Slot	All Settings				
Switch Other	1/0	UI	Animation ON	Blur	Beep	Live Set Font	D Initialize User Data				
Info	Advanced	LED	Knob Flash	KnobBrightness	Half Glow	Large	D Initialize				
	System		ON	128	1/4		All Data				
MODX Firmware Version : (c)2018 Yamaha Corporation											

MODX Firmware version

Power on Mode

Determines the start-up display (which is automatically called up when power is turned on). **Settings:** Perform, Live Set

Auto Power Off

To prevent unnecessary power consumption, this instrument features an Auto Power Off function that automatically turns the power off if the instrument is not operated for a specified period of time. This parameter determines the amount of time that elapses before the power is automatically turned off. **Settings:** Off, 5, 10, 15, 30, 60, 120min

Initial Live Set Bank Initial Live Set Page Initial Live Set Slot

Selects the Live Set Bank, Page and Slot for the start-up display, for when the Power on Mode is set to "Live Set."

Settings: Bank: Preset, User1–User8, Library1–Library8

Page: 1-16 Slot: 1-16

Set Current Slot

Sets the currently selected Live Set Bank, Page and Slot to be displayed at startup.

Animation (Animation Switch)

Determines whether the animation of screen transition is turned on or off. **Settings:** Off, On

Blur (Blur Switch)

When any display is selected, the display previously selected is blurred. This parameter determines whether the Blur function is turned on or off. **Settings:** Off, On

 Se	ttings
	Sound
	Quick Setup
	Audio I/O
	MIDI I/O
	Advanced
	System
Сс	ontents
	Load
	Store / Save
	Data Utility
	Library Import
Те	mpo Settings
Ef	fect Switch
Ot	her Info
	Shift Function
	Legal Notices

Reference	Performance	Edit	Search	Utility	Live Set
	witch) ther the beep sound (that (confirms operations, r	nenu/parameter selectio		Jitlity Settings
on or off. Settings: Off, On		-)			Sound Quick Setup
•	tuper Knob LED Switch ther the flashing function o	•	irned on or off.		Audio I/O MIDI I/O Advanced
-	ss (Knob Brightness)	e Super Knob.			System Contents
Settings: 0–128 Half Glow (LE	D Half Glow Brightnes	s)			Load Store / Save
Controls the dim Settings: Off, 1/4,	ming of the button lamps.				Data Utility Library Import
Calibrate Touc	ch Panel				Tempo Settings
1	bration display for the Touc	ch Panel. Calibration c	of the touch panel may be	e necessary if the	Effect Switch
touch panel doe	s not respond correctly.				Other Info
Initialize All Se	ettings				Shift Function
	em settings you created o	n the Utility display.		_	Legal Notices

Initialize User Data

Initializes User data (Performance, Motion Sequence, and Live Set) in the specified area of User memory.

Initialize All Data

Initializes all User data in the User memory and all system settings you created on the Utility display.

NOTICE

When the Initialize operation is executed, all target data and system settings you created will be erased. Make sure you are not overwriting any important data. Be sure to save all important data to your USB flash drive before executing this procedure.

MODX Firmware Version

Shows the version of the firmware installed on your MODX.

Live Set Font (Live Set Font Size)

Determines the font size of the contents name on the Live Set display and the Category Search display. Settings: Normal, Large

Live Set display

Normal

Live Set		FX IIII +	J 140 🗰 🔅
Bank Preset	✓ Page Best of MO	DX 1	~
CFX + FM EP 2	Creation	Pearly Gates	Plastic Beat
A.PIANO CFX+FM EP Run2+Fm×X []] = SSS	SYN PAD w/ Auto SK AWM2 ALL SSS	CHILL OUT Style ARP	DANCE Style ARP
Rd 1 Gallery 2	Ocean Pad	FM Sweeping Poly	Start The Machine
E.PIANO RD Rum2	SYN PAD Rum2 III = SSS	Syn Pad Finx (iii iii) 555	DANCE Style ARP
Wr Gallery 2	Romance Strings	FM Linear Synth	Whip Motion
E.PIANO WR Rum2+Fmxx SSS	STRINGS Ensemble	SYN PAD Aun2+Fm×1 III = 1955	SYN PAD
All 9 Bars!	Texas Chicken Pick	Multi Saw MW DA	Turn It On
ORGAN Aum2 III SSS	E.GUITAR Clean	SYN COMP Rum2 III SSS	SYN COMP w/ M.SEQ
교 Category	Freaky	Dancer	Amust Eury
Search	DANCE St	yle ARP	

Search

Utility

Live Set

• Large

-			
Live Set		FX HIII ~~	J 140 🗰 Ö
Bank	✓ Page		~
Preset	Best of MO	DX 1	
CFX + FM EP 2	Creation	Pearly Gates	Plastic Beat
A.PIANO CFX+FM EP	SYN PAD w/ Auto SK Rum2 III III IIII IIII	CHILL OUT Style ARP	DANCE Style ARP RUN2+FMX (111) SSS
Rd 1 Gallery 2	Ocean Pad	FM Sweepin…	Start The M…
E.PIANO RD	SYN PAD Aum2 III = SSS5	Syn Pad	DANCE Style ARP
Wr Gallery 2	Romance St…	FM Linear S…	Whip Motion
E.PIANO WR	STRINGS Ensemble	SYN PAD Rum24Fm×1 []] [] [SSS	SYN PAD
All 9 Bars!	Texas Chick…	Multi Saw M…	Turn It On
ORGAN	E.GUITAR Clean	SYN COMP Runz III SSS	SYN COMP w/ M.SEQ
口 Category	Freaky	Dancer	Amust Em-X
Search	DANCE St	yle ARP	

Category Search display

• Normal

n t	Performar	nce Catego	ory Search		FX		i	140	¢ I
Main	Bank/Favori All	te	▼ _{Attrib} All	ute	•	Q			[7]
AII	Piano	Keyboard	Organ	Guitar	Bass	Strings	Brass	Woodwind	No Assign
Sub	Syn Lead	Pad/Choir	Syn Comp	Chromatic Perc	Drum/Perc	Sound FX	Musical FX	Ethnic	Init
All	Analog	Digital	Нір Нор	Dance	Rock/Pop	R&B/ Hip Hop	Electronic	Jazz/World	No Assign
Catatonix		Eleckt	tronic Cha	t	Freaky Da	ncer	Flyi	ng Dub	
lluminator		Wave	Runner MW	/ DA	SuperGlide	er MW DA		ection Twi	nkle
Synth Nois		Huge	Lead	× III = 555	Bleep Lead		Det	uned Vinta	
Space Lead		Dual S	Gquare Lea		Vintage S			Rum2 :y Hook	655
	Sort	335	Sums		Favorite		633	Rum2 Page	
Audition	Defa	ault Nan	ne Dat	e					\sim

• Large

n t	Performar	nce Catego	ory Search		FX		÷	140	i o
Main	Bank/Favori All	ite	▼ Attrib All	ute	•	Q			(T)
All	Piano	Keys	Organ	Gtr	Bass	Str	Brass	ww	
Sub	SynLd	Pad	SynCp	CPerc	Dr/Pc	S.FX	M.FX	Ethnc	Init
All	Analg	Digtl	Н Нор	Dance	Rock	R&B	Elect	Jz/Wd	
Catatoni		Elec	ktronic (Chat	Freaky [Dancer	Fly	ring Dub	
Iluminat		Wav	eRunner	MW ···	SuperGI	ider MW		flection T	wink…
· ·	oise Voco		e Lead	633	Bleep Le	ad AF2	De	tuned Vir	ntage…
Space Le	ead		Square		Vintage	Sync	Dir	ty Hook	635
Audition	Sort Def				Favorite Set			Page	~

Uitli	Uitlity					
	Se	ttings				
-		Sound				
		Quick Setup				
		Audio I/O				
		MIDI I/O				
		Advanced				
		System				
-	Сс	ontents				
-		Load				
		Store / Save				
		Data Utility				
		Library Import				
-	Те	mpo Settings				
-	Effect Switch					
-	Other Info					
-		Shift Function				
		Legal Notices				

Reference	Performance	Edit	Search	Utility	Live Set
Contents					Uitlity
oomenta					Settings
					Sound
Load					Quick Setup
From the Load dis	splay you can load files a	nd data.			Audio I/O
					MIDI I/O
Operation [U	$TILITY] \rightarrow [Contents] \rightarrow [Loa]$	ad]			Advanced
	Pare	nt Folder Name Curr	ent Folder Name Free Stora	ige	System
					Contents
🖻 土 (Utility	FX	IIIIII •<→ J 90 III	<u> </u>	Load
	Content Type > Dev	vices > usb1	Library	doL	Store / Save
Settings Loa	ad Library File		0/8		Data Utility
Sto	re MODXLibrary.X8L				Library Import
Contents / Sa	ave				Tempo Settings
Tempo Dat	ta				Effect Switch
Settings Utili	ity MODXLibrary001.X8L	_			Other Info
Effect Libra	ary				Shift Function
Switch Impo					Legal Notices
Other Info					
	Sort		Page		

Content Type

Among the various types of data saved in a single file on a USB flash drive or this instrument, you can load all of them to this synthesizer at once or only a specific, desired type of data. This parameter determines which specific type of data will be loaded from a single file. The editable parameters differ depending on how you arrive at this display.

Import Option

Folder/File select

Settings: The file types which can be loaded as follows.

File Types	Device Type	Extension	Description
User File	File	.X8U .X7U	Files of the "User File" type saved to USB flash drive can be loaded and restored to the dedicated area in the User Memory of the instrument (page 23). User File Type data is as follows. • Performance • Arpeggio • Motion Sequence • Curve • Live Set (all User Banks; User 1–8) • Micro Tuning • Waveform • Utility settings • Quick Setup • Audition
Library File	File	.X8L .X7L	 Files of the "Library File" type saved to USB flash drive can be loaded and restored to the dedicated area in the User Memory of the instrument (page 23). Library File Type data is as follows. Performance Arpeggio Motion Sequence Curve Live Set (only one Bank; contents of User 1 Bank when saved) Micro Tuning Waveform Audition

Performance

Edit

Search

Utility

Live Set

File Types Device Type		Extension	Description	Uitlity		
Backup File	File	.X8A	Data that is saved to USB flash drive as a backup file can be loaded to the User Memory again. A backup file includes all	Settings		
			User data, Library data, and Song data.		Sound	
			NOTE .X7A format (MONTAGE backup files) is not		Quick Setup	
			supported.		Audio I/O	
Song&Perf	Internal data		A specified Song in a file that is saved to the dedicated area in		MIDI I/O	
			the User Memory as a "Song" type can be individually selected and loaded (played back) to the instrument. Both of		Advanced	
			MIDI sequence and Performance data can be loaded.		System	
Song	Internal data		A specified Song in a file that is saved to the dedicated area in the User Memory as a "Song" type can be individually	Co	ontents	
			selected and loaded (played back) to the instrument. Only		Load	
			MIDI sequence data can be loaded.		Store / Save	
.mid File	File	.MID	Standard MIDI File (SMF in format 0, 1) data that is saved to USB flash drive can be loaded and played back.		Data Utility	
.wav File	File	.WAV	Audio data (Wave File) that is saved to USB flash drive can be		Library Import	
	-		loaded and played back.	Те	mpo Settings	
Audio File*	File	.WAV	Audio data (Wave File and AIFF File) that is saved to USB flash	Ef	fect Switch	
		.AIF	drive can be loaded and as "Waveform." Example: [PERFORMANCE (HOME)] → [EDIT] → Part	Other Info		
			selection \rightarrow Element selection \rightarrow [Osc/Tune] \rightarrow "New		Shift Function	
			Waveform"		Legal Notices	
Motion Seq*	Internal data		A specified Sequence data in a file that is saved to the dedicated area in the User Memory as an "Motion Seq" type can be individually selected and loaded to the instrument. Example: [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element/Operator [Common] \rightarrow [Motion Seq] \rightarrow [Lane] \rightarrow "Load Sequence"			

NOTE Files with an asterisk (*) are not displayed when you call up this display from the Utility display.

Parent Folder Name

Current Folder Name

Indicates the Parent Folder name and the current selected Folder Name. Once you touch the Parent Folder Name, the Folder becomes the currently selected folder.

Free Storage

Indicates the free space and the full space of the selected storage area. This parameter differs depending on the Content Type.

Folder/File Select

Indicates Folders/Files in the selected Folder.

Sort (Sort Order)

Determines the Sort Order of the Files in "File Select."

Settings: Name, Size, Date, Number

Name: Sorts by name. When the lower arrow is displayed, the List is arranged in ascending order (A to Z). When the upper arrow is displayed, the List is arranged in descending order.

Size: Sorts in order of data size. When the lower arrow is displayed, the List is arranged in ascending order (small to big.) When the upper arrow is displayed, the List is arranged in opposite order. This is not available for "Motion Seq," "Song," and "Song&Perf" type Files.

Date: Sorts in order of storing. When the lower arrow is displayed, the List is arranged in descending order (newer to older). When the upper arrow is displayed, the List is arranged in ascending order. This is available only for "Motion Seq," "Song," and "Song&Perf" type Files.

Number: Sorts in order of Content Number. This is available only for "Song" and "Song&Perf" type Files.

Import Option

With the MOTIF XF, MOTIF, XS, or MOXF files, you can set the file to be loaded as Performance or Voice. **Settings:** Voice, Perf

Page (Page Select)

When Files in "File Select" are displayed in multiple pages, you will need to use this button to scroll through the pages.

Reference	Performance	Edit	Search	Utility	Live Set
Job (Job Swite	,				Uitlity
	rned on, touching	Settings			
the File/Folder/C Touching the cur		Sound			
Settings: Off, On		Quick Setup			
	Audio I/O				

Compatible with the MONTAGE6/MONTAGE7/MONTAGE8 data

The following data can be loaded to MODX6/MODX7/MODX8 among all MONTAGE6/MONTAGE7/ MONTAGE8 data. Note that .X7U files are loaded only as "User Files" and that .7L files are loaded only as "Library Files."

Also you can switch the Content Type between User file and Library file. **NOTE** The .X7A format (MONTAGE backup files) is not supported.

File Type on MONTAGE	Extension on MONTAGE	Contents
User File	.X7U	User File
Library File	.X7L	Library File

Compatible with the MOTIF XF6/MOTIF XF7/MOTIF XF8 data

The following data can be loaded to MODX6/MODX7/MODX8 among all MOTIF XF6/MOTIF XF7/MOTIF XF8 data. Please note that the data is loaded as "User File" or "Library File." Also you can switch the Content Type between User file and Library file.

File Type on MOTIF XF	Extension on MOTIF XF	Contents
All	.X3A	User Voice, User Arpeggio, User Waveform
AllVoice (All Voice)	.X3V	User Voice, User Waveform
AllArp (All Arpeggio)	.X3G	User Arpeggio
AllWaveform (All Waveform)	.X3W	User Waveform

Compatible with the MOTIF XS6/MOTIF XS7/MOTIF XS8 data

The following data can be loaded to MODX6/MODX7/MODX8 among all MOTIF XS6/MOTIF XS7/MOTIF XS8 data. Please note that the data is loaded as "User File" or "Library File." Also you can switch the Content Type between User file and Library file.

File Type on MOTIF XS	Extension on MOTIF XS	Contents
All	.X0A	User Voice, User Arpeggio, User Waveform
AllVoice (All Voice)	.X0V	User Voice, User Waveform
AllArp (All Arpeggio)	.X0G	User Arpeggio
AllWaveform (All Waveform)	.XOW	User Waveform0

Compatible with the MOXF6/MOXF8 data

The following data can be loaded to MODX6/MODX7/MODX8 among all MOXF6/MOXF8 data. Please note that the data is loaded as "User File" or "Library File."

Also you can switch the Content Type between User file and Library file.

File Type on MOXF	Extension on MOXF	Contents
All	.X6A	User Voice, User Arpeggio, User Waveform
AllVoice (All Voice)	.X6V	User Voice, User Waveform
AllArp (All Arpeggio)	.X6G	User Arpeggio
AllWaveform (All Waveform)	.X6W	User Waveform

MIDI I/O Advanced

System

Store / Save

Data Utility Library Import Tempo Settings Effect Switch Other Info

Shift Function

Legal Notices

Contents

Load

Reference	Performanc	e Edit	Searc	ch	Utility		Live Set
Store/Save	e				Ui	tlity	lings
From the Store	e/Save display you c	an store Files and da	ita.				Sound
	Press the [STORE] b						Quick Setup
Operation	or						Audio I/O
	[UTILITY] → [Conten					1	MIDI I/O
		Parent Folder Name	Current Folder Name	Free Storage			Advanced
•	L Utility		FX IIIII ~~	J 140	0	:	System
				User Perform		Con	ntents
Settings	Content Type Load Performan	> MODX	> Performance	1/640	Job	I	Load
							Store / Save
Contents	Store [Store As New / Save	11241					Data Utility
	/ Save					-	Library Import
Tempo Settings	Data Utility [Overwrite Cu	rrent Perf.]					npo Settings
sectings	lover write ed						ct Switch
Effect Switch	Library Import						er Info
Switch	Freaky Dancer					_	Shift Function
Other Info							Legal Notices
	Sort			Page			
	Name ↓	Date		1/1			

File select

Content Type

You can store all data or the specified data to the instrument or USB flash drive. This parameter determines which specific data will be stored/saved.

The editable setting value differs depending on how you arrive at this display.

Settings: The Content Types which can be stored/saved are as follows.

File Types	Device Type	Extension	Description
Performance	Internal data		Data can be stored to the dedicated area in the User Memory as a "Performance" (page 23).
User File	File	.X8U	Data that is stored to the dedicated area in the User Memory can be saved to USB flash drive. Data saved as "User File" is as follows. Performance Arpeggio Motion Sequence Curve Live Set (all User Banks; User 1–8) Micro Tuning Waveform Utility Settings Quick Setup Audition
Library File	File	.X8L	Data that is stored to the dedicated area in the User Memory can be saved to USB flash drive. Data saved as "Library File" is as follows. • Performance • Arpeggio • Motion Sequence • Curve • Live Set (User1 Bank only) • Micro Tuning • Waveform • Audition

Search

Utility

Live Set

File Types	Device Type	Extension	Description
Backup File	File	.X8A	Data that is saved to USB flash drive as a backup file can be loaded to the User Memory again. A backup file includes all User data, Library data, and Song data.
.mid File	File	.MID	MIDI data that is stored to the dedicated area in the User Memory (page 23) can be saved as a Standard MIDI File (only Format 0 SMF) to USB flash drive.
Motion Seq*	Internal data		Data can be stored as "Motion Seq" to the dedicated area in the User Memory. Example: [PERFORMANCE (HOME)] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element/Operator [Common] \rightarrow [Motion Seq] \rightarrow [Lane] \rightarrow "Edit Sequence" to call up "Motion Sequence Edit" \rightarrow "Store Sequence"

NOTE Files with an asterisk (*) are not displayed when you call up this display from the Utility display.

Parent Folder Name

Current Folder Name

Indicates the parent folder name and the current selected folder name. Once you touch the Parent Folder Name, the Folder becomes the currently selected folder.

Free Storage

Indicates the free space and the full space of the selected storage area. This parameter differs depending on the Content Type.

Folder/File Select

Indicates folders/files in the selected folder.

Sort (Sort Order)

Determines the sort order of the files in "File Select."

Settings: Name, Size, Date

Name: Sorts by name. When the lower arrow is displayed, the List is arranged in ascending order (A to Z). When the upper arrow is displayed, the list is arranged in descending order.

Size: Sorts in order of data size. When the lower arrow is displayed, the List is arranged in ascending order (small to big.) When the upper arrow is displayed, the List is arranged in opposite order. This is not available for "Performance" and "Motion Seq" type files.

Date: Sorts in order of storing. When the lower arrow is displayed, the List is arranged in descending order (newer to older). When the upper arrow is displayed, the List is arranged in ascending order. This is available only for "Performance" and "Motion Seq" type files.

Page (Page Select)

When files in "File Select" are displayed in multiple pages, you will need to use this button to scroll through the pages.

Job (Job Switch)

Determines whether the Job function is active (On) or not (Off.) When this parameter is turned on, touching the File/Folder/Content in "File Select" calls up the menu to select "Rename" or "Delete." Touching the currently connected USB device calls up the menu to select "Format." Also you can create a new folder when storing a file.

Settings: Off, On

Sound
Quick Setup
Audio I/O

Settings

Audio I/O MIDI I/O Advanced System Contents Load Store / Save Data Utility Library Import Tempo Settings Effect Switch Other Info Shift Function Legal Notices

Reference	R	ef	e	'ei	n	ce
-----------	---	----	---	-----	---	----

Performance

Edit

Search

Page

Utility

Live Set

Uitlity **Data Utility** Settings From the Data Utility display you can control Files and data in the User Memory. Also, you can collectively Sound delete multiple contents such as Performances in the User Memory. **Quick Setup** Audio I/O Operation $[UTILITY] \rightarrow [Contents] \rightarrow [Data Utility]$ MIDI I/O Folder List Advanced **Current Folder Name** System Contents FX J 140 Ö n 👠 Utility Load Store / Save Data Utility Library Import / Save Tempo Settings Effect Switch Other Info **Shift Function** Legal Notices

Folder select

Current Folder Name

Indicates the Current Folder Name.

Job (Job Switch)

Determines whether the Job function is active (On) or not (Off). This parameter is available only for the "Waveform" folder on this display. When the parameter is turned on, touching "Waveform" folder calls up the menu to select "Optimize." When this function is active, you can select multiple contents collectively from this display.

Settings: Off, On

Folder Select

Indicates the Content Types in the User Memory as folders. Touching the Folder opens it.

- Arp (Arpeggio)
- Library
- Live Set
- Motion Seq
- Performance
- Song
- Waveform

Page (Page Select)

When folders in "Folder Select" are displayed in multiple pages, you will need to use this button to scroll through the pages.

eference	F	Performance	Edit	_	Searc	ch	Utility		Live Set
		eted Folder is	s opened n select multiple cor	stants coll	actively from	a this display		Uitlity	
	แบบ เอ อ	-	Parent Folder Name		Folder Name	Free Storage		Se	ettings Sound
									Quick Setup
n t	L Utilit	ty		FX		J 90	0		Audio I/O
			> MODX	> Perform		Selected	Job		MIDI I/O
Settings	Load		> MODX	Perion	ance	3/6	JOB		Advanced
	Store	CFX + FM EP 2	Plastic B	Beat					System
Contents	/ Save							Co	ontents
Tempo	Data							—	Load
	Utility	Creation	Rd 1 Gal	lery 2	······································				Store / Save
Effect I	Library								Data Utility
	Import	Init Normal (AWM2							Library Import
Other			1+++++++++===						empo Settings
Info								Ef	fect Switch
		Pearly Gates						0	ther Info
									Shift Function
		Sort		D		Page			Legal Notices
		Name ↓ Da	ate Uns	select All	Delete	Page 1/1			

File Select

Parent Folder Name Current Folder Name

Indicates the parent folder name and the current selected folder name. Touching the parent folder name returns to the folder list view.

Free Storage

Indicates the free space and the full space of the selected storage area. This parameter differs depending on the Content Type. This parameter is displayed only when "Job" is set to OFF.

File Select

Indicates Files in the selected Folder. The Job function is always available in this display. Touching the File/ Content in "File Select" calls up the menu to select "Rename" or "Delete." ("Rename" is not available for the Files in "Library" type Folder.)

Sort (Sort Order)

Determines the Sort Order of the Files in "File Select."

Settings: Name, Size, Date, Number

Name: Sorts by name. When the lower arrow is displayed, the List is arranged in ascending order (A to Z). When the upper arrow is displayed, the List is arranged in descending order.

Size: Sorts in order of data size. When the lower arrow is displayed, the List is arranged in ascending order (small to large). When the upper arrow is displayed, the List is arranged in opposite order. This is available only for "Library" type Contents.

Date: Sorts in order of storing. When the lower arrow is displayed, the List is arranged in descending order (newer to older). When the upper arrow is displayed, the List is arranged in ascending order. This is not available for "Arp" and "Library" type Contents.

Number: Sorts in order of Content Number. This is available only for "Arp," "Song," and "Waveform" type Contents.

Select All

Selects all contents in the folder. This button is displayed only when no content is selected.

Unselect All

Unselects all contents in the folder. This button is displayed only when any of contents is selected.

Delete

Deletes the selected content(s). This button is displayed only when any of contents is selected.

Reference

Search

Utility

Live Set

Page (Page Select)

When Files in "File Select" are displayed in multiple pages, you will need to use this button to scroll through the pages.

Library Import

You can select a desired Performance in the Library file which is loaded to the User Memory and copy the Performance to the User Bank.



 $[UTILITY] \rightarrow [Contents] \rightarrow [Library Import]$

Library Folder List

A	🛍 Utili	ty		FX	₩₩ ↔	J 140		0
Settings	Load		> MODX	> Library				
Contents	Store / Save	MODXLibrary						
Tempo Settings	Data Utility							
Effect Switch	Library Import							
Other Info								
						Fage	1/1	

Library Folder Select

Library Folder Select

Indicates the Libraries as folders. Touching the Folder opens it. These folders are displayed only when Library files are loaded in the Load display.

Uitlity								
	Settings							
		Sound						
	Quick Setup							
	Audio I/O MIDI I/O							
		Advanced						
		System						
	Сс	ontents						
		Load						
		Store / Save						
		Data Utility						
		Library Import						
	Те	mpo Settings						
	Ef	fect Switch						
	Ot	her Info						
-		Shift Function						
		Legal Notices						

Reference	Performance	Edit	Search	Utility	Live Set
When the	e selected Library Fo	lder is opened		Uit	lity

When the selected Library Folder is opened

A	🕇 Util	ity			FX		- J	140		0
Settings	Load		➤ Library		> MODXI	_ibrary		Select		
Contents	Store / Save	Freaky Dancer								
Tempo Settings	Data Utility									
Effect Switch	Library Import	-								
Other Info										
		Sort Name↓ Da	ate	Unse	D lect All	∎ Import to User Bank		Page	1/1	
		_								

Performance Select

Performance Select

Indicates the Performances in the selected Library. Touching the name switches between being selected or unselected.

Select All

Selects all Performances in the selected Library folder. This button is displayed only when no Performance is selected.

Unselect All

Unselects all Performances in the Library folder. This button is displayed only when any of Performances is selected.

Import to User Bank

Copies the selected Performance in the User Bank. User Waveforms and User Arpeggio which are used in the selected Performance are copied to the User Bank as well. This button is displayed only when any of the Performances is selected.

Settings Sound **Quick Setup** Audio I/O MIDI I/O Advanced System Contents Load

Store / Save **Data Utility** Library Import Tempo Settings Effect Switch Other Info

> **Shift Function** Legal Notices

eference	Performanc	e	Edit		Search	Utility	Live Set
Tempo Se	ettinas						– Uitlity
	Juligo						- Settings
From the Tem	po Settings display	you can set pa	arameters rel	ated to Tem	oo and Synch	nronization.	Sound
		0 - 11 1					Quick Setup
	[UTILITY] → [Tempo or	Settingsj					Audio I/O
Operation	[SHIFT] + [ENTER]						MIDI I/O
	or Touch the TEMPO S	FTTING icon					Advanced
							System
				-	TEMPO SETTI	NG icon	Contents
							Load
	A		F	v	<i>⊂</i> 1140	···· *	LOAU
A	🖒 Utility		F	×	< 🖌 140	¢	Store / Save
	t Utility Tempo	Knob Flash	F Global Tempo	X Hilling •	< J 140	···· •	
Settings		Knob Flash ON			 J 140 		Store / Save
Settings	Tempo		Global Tempo		J 140	···· •	Store / Save Data Utility
	Tempo		Global Tempo		J 140	···· •	Store / Save Data Utility Library Import
Settings	Tempo 140	ON	Global Tempo				Store / Save Data Utility Library Import Tempo Settings
Settings Contents	Tempo	ON MIDI Sync	Global Tempo OFF	Тар Тетро	Clock Out		Store / Save Data Utility Library Import Tempo Settings Effect Switch
Settings Contents Tempo	Tempo 140	ON	Global Tempo				Store / Save Data Utility Library Import Tempo Settings Effect Switch Other Info
Settings Contents Tempo Settings	Tempo 140	ON MIDI Sync	Global Tempo OFF	Тар Тетро	Clock Out	Type	Store / Save Data Utility Library Import Tempo Settings Effect Switch Other Info Shift Function
Settings Contents Tempo Settings Effect	Tempo 140 Sync	ON MIDI Sync Internal	Global Tempo OFF MIDI	Tap Tempo A/D In	Clock Out ON		Store / Save Data Utility Library Import Tempo Settings Effect Switch Other Info Shift Function
Settings Contents Tempo Settings Effect Switch Other	Tempo 140 Sync	ON MIDI Sync Internal Mode	Global Tempo OFF MIDI Precount	Tap Tempo A/D In Volume	Clock Out ON Beat	Туре	Store / Save Data Utility Library Import Tempo Settings Effect Switch Other Info Shift Function

Tempo

Determines the Performance tempo. This parameter is not available when the "MIDI Sync" is set to "MIDI" or "A/D In" and the instrument is synchronized to an external device ("EX. Tempo" is displayed instead of the setting value.)

Settings: 5-300

Knob Flash (Super Knob LED Switch)

Determines whether the flashing of the Super Knob is turned on or off. **Settings:** Off, On

Global Tempo (Global Tempo Switch)

When this switch is set to OFF, the tempo setting changes when a different Performance is selected. When this switch is set to ON, the current tempo is used for all Performances. **Settings:** Off, On

Tap Tempo

Allows you to tap the desired tempo by touching this parameter or by moving the cursor to this parameter and pressing (tapping) the [ENTER] button on the panel.

This parameter is not displayed when the "MIDI Sync" is set to "MIDI" and the instrument is synchronized to an external device.

NOTE When "MIDI Sync" is set to "A/D In," the tempo search starts by touching this parameter.

Reference	Performance	Edit	Search	Utility	Live Set	
MIDI Sync				ι	Uitlity	
	ameters related to MIDI clo	,		1	Settings	
	ether Arpeggio/Motion Sequ In external MIDI clock, or th				Sound	
Settings: Internal		ie Addie Signal input			Quick Setup	
	I: Synchronization to internal clo		ng when this tone generator is	to be used alone or	Audio I/O	
	naster clock source for other equipment of the source for other equipment of the source for the source of the sour	1		this patting when the	MIDI I/O	
	I sequencer is to be used as ma		WIDT INSTRUMENT VIA WIDT. OSE	this setting when the	Advanced	
A/D In:	Synchronization to the tempo of	the Audio signal received	d via the A/D INPUT [L/MONO]]/[R] jacks.	System	
Clock Out					Contents	
	ether MIDI clock messages	will be transmitted or	r not.		Load	
Settings: Off, On	C C				Store / Save	
Mode (Click N	(ode)				Data Utility	
•	click sound (metronome) th	nat is used during rec	ording or playback		Library Import	
Settings: Off, Rec			oranig or playbaok.		Tempo Settings	
Off: The	e click will not sound.				Effect Switch	
	ne click will sound during Song re	÷ ·			Other Info	
	ay: The click will sound during S :: The click will always sound.	ong recording and playba	ack.		Shift Function	
Always	• The click will always sould.				Legal Notices	

Precount (Click Pre-count)

Determines the number of count-in measures provided before recording actually starts after pressing the [►] (Play) button while the Song recording.

Settings: Off (Recording starts as soon as the [▶] (Play) button is pressed), 1meas–8meas

NOTE Since the click sound is created with the internal tone generator, using click playback affects the overall polyphony of the instrument.

Volume (Click Volume)

Determines the click sound volume. **Settings:** 0–127

Beat (Click Beat)

Determines which beats the metronome click will sound. **Settings:** 1/16 (16th notes), 1/8 (8th notes), 1/4 (quarter notes), 1/2 (half notes), Whole (whole notes)

Type (Click Type)

Determines the click sound type. **Settings:** 1–10

Sync Quantize (Sync Quantize Value)

Determines the actual timing at which the next Arpeggio playback starts when you trigger it while the Arpeggio of multiple Parts is played back. When set to "off," the next Arpeggio starts as soon as you trigger it. The displayed number 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)

Click Out (Click Output Select)

Determines the specified output for the "Click."

Settings: MainL&R, USB1&2...USB7&8, USB1...USB8

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks. USB1&2...USB7&8: Outputs in stereo (Channels 1&2–7&8) to the [USB TO HOST] terminal. USB1...USB8: Outputs in mono (Channels 1–8) to the [USB TO HOST] terminal.

Reference

Performance

Edit

Search

Utility

Live Set

Uitlity Effect Switch Settings Sound From the Effect Switch display you can make Effect Bypass settings. None of the settings made on this display will be stored. When the instrument is restarted, the parameter values are also initialized. **Quick Setup** Audio I/O [UTILITY] → [Effect Switch] MIDI I/O Operation or Touch the EFFECT icon Advanced System EFFECT icon Contents Load FX J 90 Ö Utility Store / Save **Data Utility** Library Import Insertion FX Master EQ Tempo Settings ON ON ON ON Effect Switch Other Info Settings **Shift Function** Effect **Legal Notices** Switch Arp Bypass

Insertion FX (Insertion Effect Switch)

Determines whether the Insertion Effect is active or not. **Settings:** Off, On

System FX (System Effect Switch)

Determines whether the System Effect is active or not. **Settings:** Off, On

Master FX (Master Effect Switch)

Determines whether the Master Effect is active or not. This parameter is automatically switched off when Global A/D is ON, and switched on when Global A/D is OFF. Set this switch manually when needed. **Settings:** Off, On

Master EQ Switch

Determines whether the Master EQ is active or not. This parameter is automatically switched OFF when Global A/D is set to ON, and switched ON when Global A/D is set to OFF. Set this switch manually when needed.

The Master EQ Switch settings are not stored. **Settings:** Off, On

Arp Bypass (Arpeggio Bypass Switch)

Determines whether the Arpeggio Bypass is active or not. When this is set to on, all Arpeggiator operations are disabled.

Settings: Off, On

- **NOTE** Arpeggio Bypass can also be turned on/off by simultaneously holding down the [SHIFT] button and using the [ARP ON/OFF] button. The [ARP ON/OFF] button flashes when Arpeggio Bypass is turned on.
- **NOTE** When the Part Arpeggio Switch setting is changed, Arpeggio Bypass is automatically turned off even if it has been set to on.
- **NOTE** You can edit arpeggios in Song data generated by the arpeggiator with using DAW software. By turning Arpeggio Bypass on, you can prevent Song data edited on the DAW software from being affected again by the arpeggiator when routed back to the MODX.

Reference	Performance	Edit	Search	Utility	Live Set	
Determines whe turned on only fo When this is set Settings: Off, On NOTE When you	(Keyboard Control Lo ther Keyboard Control Loc or Part 1 and off for the oth to off, Keyboard Control se use the MODX as a 16-part n ion is useful for creating or ec	k is active or not. Wh er Parts. ettings for all Parts ar nulti-timbral sound mode	e returned to the original s ule with DAW software, the K	yboard Control is [–] status.	Jitlity Settings Sound Quick Setup Audio I/O MIDI I/O Advanced	
Determines whe When this paran	ther the volume for the A/E neter is ON, the volume for	the A/D Part stays th	e same, and other param	eters related to	System Contents	
Performance, ar	the A/D Part do not change. When set to OFF, the volume changes according to the volume set in each Performance, and other parameters related to the A/D Part change accordingly. The Global A/D settings are not stored. Settings: Off, On					
					Tempo Settings Effect Switch Other Info Shift Function Legal Notices	

Reference	Performance	Edit	Search	Utility	Live Set
				(Jitlity
Other Info					Settings
Shows other info	ormation.				Sound
					Quick Setup
Shift Function	on				Audio I/O
					MIDI I/O
Shows the Shift F	Function List.				Advanced
					System
Legal Notice	es				Contents
-					Load
Shows legal notic	ices such as the GNU GEN	VERAL PUBLIC LICEN	NSE.		Store / Save
					Data Utility
					Library Import
					Tempo Settings
					Effect Switch
					Other Info
					Shift Function
				_	Legal Notices

Search

Utility

Live Set

Live Set

Live Set is a list in which Performances can be freely arranged. Up to 16 Performances can be selected from the Preset Live Sets and arranged over a single page—making it easy to call up and play your favorite Performances. For basic instructions on Live Set, see the Owner's Manual.

Live Set

From the Live Set display you can call up the registered Performances.



Preset	∼ Best of MC	DX 1	~				
CFX + FM EP 2	Creation	Pearly Gates	Plastic Beat				
A.PIANO CFX+FM EP	SYN PAD w/ Auto SK	CHILL OUT Style ARP	DANCE Style ARP				
Rd 1 Gallery 2	Ocean Pad	FM Sweeping Poly	Start The Machine				
E.PIANO RD	SYN PAD Runz III = ISSS	SYN PAD	DANCE Style ARP				
Wr Gallery 2	Romance Strings	FM Linear Synth	Whip Motion				
E.PIANO WR	STRINGS Ensemble	SYN PAD Rum2+Fm×X III = ISSS	SYN PAD				
All 9 Bars!	Texas Chicken Pick	Multi Saw MW DA	Turn It On				
	E.GUITAR Clean	SYN COMP Runz III SSS	SYN COMP w/ M.SEQ				
Category Freaky Dancer							
Search							

Current Performance Name

Performance Attribute

LIVE SET icon

Ö

J 140

Bank (Live Set Bank Select)

Determines the Live Set Bank. Settings: Preset, User 1–8 (default), Library Name (when the Library file is read)

Page (Live Set Page Select)

Determines the Live Set Page. Settings: Live Set page 1–16 (default)

Performance List

Indicates the Performances registered in the selected Live Set.

Category Search

Calls up the Performance Category Search display (page 176).

Current Performance Name

Indicates the selected Performance Name registered in the selected slot.

Current Slot Name

Indicates the selected Slot Name.

Performance Attribute

Indicates the Performance Attribute registered in the selected Slot.

Live Set Live Set Edit Register

Search

Live Set

Live Set Edit

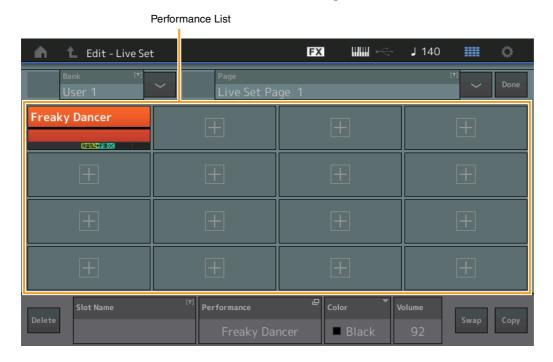
Register

Live Set Edit (Edit)

From the Live Set Edit display you can edit the Live Sets (User Bank only).

Operation [LIVE SET] \rightarrow User Bank selection \rightarrow [EDIT]

■ When the Slot to which a Performance has been registered is selected



Bank (Live Set Bank Name)

Enters the desired name for the selected Live Set Bank. The names can contain up to 20 characters. Touching the parameter calls up the input character display.

Page (Live Set Page Name)

Enters the desired name of the selected Live Set Page. The names can contain up to 20 characters. Touching the parameter calls up the input character display.

Done

Touching this parameter finishes the Live Set Editing and returns to the Live Set display.

Performance List

Indicates the Performances registered in the selected Live Set.

Delete

Deletes the Performance from the selected Slot.

Slot Name

Enters the desired name of the selected Slot. The names can contain up to 20 characters. Touching the parameter calls up the input character display.

Performance (Performance Name)

Indicates the Performance Name in the selected Slot.

Color

Determines the Color of the selected Slot.

Settings: Black, Red, Yellow, Green, Blue, Azure, Pink, Orange, Purple, Sakura, Cream, Lime, Aqua, Beige, Mint, Lilac

Volume

Determines the volume of the Performance in the selected Slot.

Reference	Performance	Edit	Search	Utility	Live Set

Swap (Swap Switch)

Determines whether the Swap function is turned on or off. You can switch settings between Slots. For instructions on the Swap function, see the Owner's Manual. **Settings:** Off, On

Copy (Copy Switch)

Determines whether the Copy function is turned on or off. You can copy the setting to another Slot. **Settings:** Off, On

When an empty Slot is selected

🖬 🛍 Edit - Live Se	t	FX 🗰 ሩ	J 80 🗰 🔅	
Bank [7] User 1	 Page Live Set Page 	ge 1	[T] V Done	
Freaky Dancer	Creation	+	+	
+	±	Ŧ	+	
+	+	+	+	
+	H	+	+	
Delete Slot Name	^[T] Performance Creatio		110 Swap Copy	

Search

Utility

Live Set

Live Set

Edit

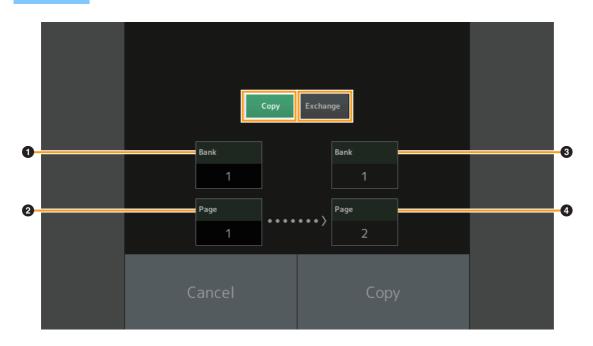
Live Set

Register

■ Copying or Exchanging Live Sets

You can copy (or exchange) between Live Sets on a Bank or page basis. **NOTE** Page copy (or exchange) between different Banks cannot be executed.

Operation	[LIVE SET] → User Bank selection → [EDIT] → Select Bank/Page to be copied → [SHIFT] + [EDIT]
oporation	



Сору

Touching this button activates the Bank/Page Copy function.

Exchange

Touching this button activates the Bank/Page Exchange function.

1 Bank to be copied (or exchanged)

NOTE The currently selected Part is set automatically and this setting cannot be changed.

- **2** Page to be copied (or exchanged)
- **3** Copy (or exchange) destination Bank
- Opy (or exchange) destination Page

Reference

Live Set Register (Register)

From the Live Set Register display you can register Performances to the Live Set. For basic instructions on Live Set Registering, see the Owner's Manual.

Operation	[SHIFT] + [LIVE SET] (from any operation displays, other than Live Set)

	Select							
n t Register - Liv			FX	•••	J 80		Ö.	
Bank User 1	~	Page Liv	e Set Pa	ge 1			~	
Freaky Dancer Crea		tion						
Rum2+Fm-X		(AWM2)						

Bank (Live Set Bank Select)

Determines the Live Set Bank for registering Performances. Preset Bank and Library Bank cannot be selected for this parameter.

Settings: User 1-8 (default)

Page (Live Set Page Select)

Determines the Live Set Page for registering Performances. **Settings:** Live Set Page 1–16 (default)

Slot Select

Determines the Slot for registering Performance. When the Slot containing the Performance is selected and press the [ENTER] button (or touch the Slot again on the display), the Performance in the slot is replaced with the currently selected Performance.

Settings: Slot 1-16

Utility

Live Set

Live Set

Live Set	
Edit	
Register	

Edit

Search

Search

iPhone/iPad connection

Connecting an iPhone or iPad

NOTE In order to eliminate the risk of noise from other communication when using this instrument with an iPad or iPhone app, be sure to turn on Airplane Mode and then turn on Wi-Fi.

NOTICE

Be sure to place your iPad or iPhone on a stable surface to prevent it from falling over and being damaged.

Apps compatible with the MODX provide many more convenient, enjoyable ways to use this musical instrument.

For details on how to connect the devices, refer to the "iPhone/iPad Connection Manual," which is available from the Yamaha web site.

NOTE For audio signal transfer, refer to the connection using Lightning to USB Camera Adapter.

Details of compatible smart devices and apps can be found on the following page from the Yamaha web site.

http://www.yamaha.com/kbdapps/

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