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Using the MONTAGE Manuals

Your MONTAGE6/MONTAGE7/MONTAGE8 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 MONTAGE6/MONTAGE7/MONTAGE8 and how to perform basic operations.

- This manual explains the following operations.
 - Quick Guide Selecting Performances
 - Quick Guide Playing the Keyboard
 - Quick Guide Creating Your Own Live Sets
 - Quick Guide 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 MONTAGE6/MONTAGE7/MONTAGE8 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.
- \mbox{NOTE} The most-recent version of $\mbox{Adobe}^{\mbox{$^{(\! R$}$}}$ Reader $\mbox{$^{(\! R$}$}$ can be downloaded from the following web page.

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.
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Select the display name tab

Select the function

Basic Structure

Functional Blocks

The MONTAGE6/MONTAGE7/MONTAGE8 system consists of eight main functional blocks: Tone Generator, A/D Input, Sequencer, Motion Sequencer, Arpeggio, Controller, Effect, and Envelope Follower.



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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.

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 145).

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 58. For instructions on editing a Normal Part (FM-X), see page 131. For instructions on editing a Drum Part, see page 119.

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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.

Vel

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 MONTAGE 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

4		/	/	\square
locity	Element 2	Element 4	Element 6	
	Element 1	Element 3	Element 5	
1				

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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 MONTAGE 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 MONTAGE 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 MONTAGE 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 153) 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.

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

http://www.yamaha.com/montage/

Elements, Drum Keys and Operators

Elements/Drum Keys/Operators are the smallest "building blocks" in the MONTAGE 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).



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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 94, page 126)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → Operator selection → [Form/Freq] (page 141)

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 94, page 126)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Pitch/Filter] (page 134)

Parameters related to Pitch EG can be set as follows.

- For Normal Parts (AWM2)
 [EDIT] → Part selection → Element selection → [Pitch EG] (page 98)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Pitch/Filter] (page 134)

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 100, page 128)
- For Normal Parts (FM-X)
 [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Pitch/Filter] (page 134)

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) $[EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Amplitude] (page 108)$
- For Drum Parts $[EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Level/Pan] (page 129)$
- For Normal Parts (FM-X) $[EDIT] \rightarrow Part selection \rightarrow Operator selection \rightarrow [Level] (page 143)$

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] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Mod/Control] \rightarrow [Part LFO] (page 85)
- For Normal Parts (FM-X) [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Mod/Control] → [Part LFO] or [2nd LFO] (page 138)

Parameters related to Element LFO can be set as follows.

 $[EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Element LFO] (page 113)$

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 each AWM2 and 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.

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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.

 $[\mathsf{PERFORMANCE}] \rightarrow [\mathsf{Mixing}] (\mathsf{page 44})$

 $[\text{EDIT}] \rightarrow \text{PART} [\text{COMMON}] \rightarrow [\text{Audio In}] \rightarrow [\text{Mixing}] \text{ (page 147)}$

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] → PART [COMMON] → [Audio In] → [Routing] (page 148)

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.

 $[UTILITY] \rightarrow [Settings] \rightarrow [Audio I/O] \rightarrow "A/D Input" (page 168)$

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 MONTAGE can store up to 64 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 MONTAGE 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.

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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.

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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 15).

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 15).

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 15), the Arpeggios created for use of Drum Parts (page 15), and Arpeggios containing mainly non-note events (page 16).

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	8	4	6	6	Ø	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			1
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.

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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).

O 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 73)

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] → Part Selection → ELEMENT/OPERATOR [COMMON] → [Arpeggio] → [Common] (page 73)

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.

[EDIT] → Part Selection → ELEMENT/OPERATOR [COMMON] → [Arpeggio] → [Advanced] (page 77)

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Normal Part (FM-X) Edit
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iPhone/iPad connection

Using the Knobs to control Arpeggios

By pressing the Knob function [ARP/MS] button, you can use the Knobs 1-4 to control Arpeggio playback. Try this out and listen for the changes in the sound. For details regarding the effect of the Knobs 1-8, see Quick Edit (page 31).

Arpeggio functions which can be controlled by Knob operations



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. [EDIT] → Part Selection → ELEMENT/OPERATOR [COMMON] → [Arpeggio] → [Advanced] (page 77)

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] → Part Selection → ELEMENT/OPERATOR [COMMON] → [Arpeggio] → [Advanced] (page 77)

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.

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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.

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.

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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] → Part Selection → ELEMENT/OPERATOR [COMMON] → [Arpeggio] → [Common] (page 73)

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 "Quick Guide" in the Owner's Manual.

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.

 $[PERFORMANCE] \rightarrow [Motion Control] \rightarrow [Motion Seq] (page 38)$

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

[PERFORMANCE] → [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Motion Seq] → [Lane] (page 81)

		setting Sequence					lence	ce Patterns for the Lane						
n 🕇 Edit - Part1 - Common						FX			€ G	J 1	40	===		0
Part	Common	Motion Seq	Lane	LaneSW	MS FX	Trigger	Seque	ence Sel	ect					
Settings		Master SW	1	ON	OFF	OFF	1	2	3	4	5	6	7	8
Effect	Lane	ON . Motion Seq	2	ON	OFF	OFF	1	2	3	4	5	6	7	8
Arpeggio		Part SW	3	ON	OFF	OFF	1	2	3	4	5	6	7	8
Motion			4	ON	OFF	OFF	1	2	3	4	5	6	7	8
Seq		Sync	Speed		Key On R	eset 🔻	Loop		locity					
Mod / Control		Off	6	53	Of	ff		ON		1			127	7
		Load Sequence	Edit Se	لے equence	Cycle	6	1 2	34	56	78	9 10	11 12	13 14	15 16
Common	1	2 3	•	4	5	6	7	8	•	AII				

Selected Sequence setting

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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.

 $[EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [MOTION Seq] \rightarrow [Lane] (page 81)$

Using the Knobs to control Motion Sequencer

By pressing the Knob function [ARP/MS] button, you can use the Knobs 1 - 2 and 5 - 8 to control Motion Sequencer playback. Try this out and listen for the changes in the sound. For details regarding the effect of the Knobs, see Quick Edit (page 31).

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 83.

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 89.

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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 set Part Edit \rightarrow [Effect] (page 67, page 122, page 136).

This synthesizer features 17 sets of Insertion Effects. They can be applied to 1 to 16 Parts (maximum) 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.

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Effect connection

Each EQ and Insertion Effect applied to each Part

2 Variation and Reverb related parameters

Setting: Part Edit → [Effect] → [Routing] (page 67, page 122, page 136) Common/Audio Edit → [Effect] → [Routing] (page 154)

O Master Effect related parameters

Setting: Common/Audio Edit → [Effect] → [Master FX] (page 158)

Master EQ related parameters

Setting: Common/Audio Edit → [Effect] → [Master EQ] (page 159)

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

MONTAGE 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.

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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 89).



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

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

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Controller Block

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

Keyboard

The keyboard transmits the note on/off messages to the Tone Generator Block (for sounding) and Sequencer Block (for recording). 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 60). Functions other than Pitch Bend can be assigned to the Pitch Bend wheel in the Part Edit \rightarrow [Mod/Control] \rightarrow [Control Assign] (page 89, page 139).

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 89, page 139).

Ribbon Controller

The Ribbon Controller is touch sensitive, and is controlled by running your finger laterally across the surface. Various functions are assigned to each Part of the preset Performance. Various functions can be assigned to the Ribbon Controller in the Control Assign display (page 89) of the Part Edit. You can also determine whether the Ribbon Controller value returns to the center, or stays at the point where you released your finger in the General display (page 146) of the Common/Audio Edit.

Assignable Switches

According to the XA (Expanded Articulation) Control settings (page 6) in Element Edit \rightarrow [Osc/Tune] (page 94), 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 145). 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 89, page 139).

s other than Pitch e Part Edit → Pitch down 99).



Pitch up

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Knobs/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/sliders, see the Owner's Manual. For instructions on using the Knobs 1 – 8, see "Quick Edit" (page 29).

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 39). Also, for instructions on setting the Assign 1 - 8 controls, see the Control Assign display (page 152) for the Common/Audio Edit.

Internal Memory

The MONTAGE 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 the following: It does not include the Utility or Quick Setup settings. Also, the included Live Set contains 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.

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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 (.X7L) read from the USB flash memory device 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.

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.

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Search

Reference

Display (touch panel)

Display (touch panel) configuration

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

Navigation bar							
000		4 5	6 7 8				
Live Set		FX IIII 🔶	J 125 🛄 📀				
Bank	V Page		~				
Preset	Best of MC						
CFX + FM EP	Wax And Wane	Pearly Gates	DJ Montage				
A.PIANO CFX+FM EP Runz+Fmx (#1=) [555	SYN PAD w/ Auto SK	CHILL OUT Style ARP	DANCE Style ARP				
Rd 1 Gallery	Ocean Pad	FM Sweeping Poly	Tektonic Dub				
E.PIANO RD Rum2	SYN PAD Runz 🖬 🖬 SSS	SYN PAD	DANCE Style ARP				
Wr Gallery	Seattle Sections	FM Linear Synth	Particles in Space				
E.PIANO WR	STRINGS Ensemble	SYN PAD Rum2+Fm×X III = LSSS	SYN PAD Rum2+Fm-X III SSS				
All 9 Bars!	8 Amps and a TC	Multi Saw MW DA	Turn It On				
ORGAN Runz (#1=) (555	E.GUITAR Clean	SYN COMP Run2 III SSS	SYN COMP w/ M.SEQ				
교 Category							
Search							

HOME icon

Moves to the Performance Play display (page 26).

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.

4 EFFECT icon

Touch the icon to call up the Effect Switch display (page 182). The icon turns off when any of the Effect blocks (Insertion, System or Master) is off.

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 166).

6 TEMPO SETTINGS icon

Displays the tempo of the currently selected Performance. Touch the icon to call up the Tempo Settings display (page 180).

LIVE SET icon

Touch the icon to call up the Live Set display (page 183).

O UTILITY icon

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

Search

Display (touch panel)



Scroll buttons

Display All

- m - L	Edit - Part2 - C	ommon			J 125	¢
	_	_	_	×	ē	Page 1
PitchBend	AsgnKnob 2	MS Lane 1	EnvFollow 6	EnvFollow 15		
ModWheel	AsgnKnob 3	MS Lane 2	EnvFollow 7	EnvFollow 16		
AfterTouch	AsgnKnob 4	MS Lane 3	EnvFollow 8	EnvFollowAD		
FootCtrl 1	AsgnKnob 5	MS Lane 4	EnvFollow 9	EnvFollowMst		
FootCtrl 2	AsgnKnob 6	EnvFollow 1	EnvFollow 10		Param 1	
FootSwitch	AsgnKnob 7	EnvFollow 2	EnvFollow 11		5	
Ribbon	AsgnKnob 8	EnvFollow 3	EnvFollow 12			
Breath	AsgnSw 1	EnvFollow 4	EnvFollow 13			Delete
AsgnKnob 1	AsgnSw 2	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

Utility

Motion Control

Overview Quick Edit

Arpeggio Motion Seq

Super Knob Knob Auto

Performance

Mixing Scene

Play / Rec MIDI

Audio

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.

2 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.

S 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	
FM-X+AWM2 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 - 8.

Search

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Performance

	Но	ome
-	M	otion Control
-		Overview
		Quick Edit
		Arpeggio
		Motion Seq
		Super Knob
		Knob Auto
-	Mi	ixing
	Sc	ene
-	PI	ay / Rec
		MIDI
		Audio
-	Sc	Motion Seq Super Knob Knob Auto ixing cene ay / Rec MIDI

9 Part names

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

6 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. **Settings:** Off, On

Output 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

Keyboard 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

① Switching Mute on/off for Parts

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

B Switching Solo on/off for Parts

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

B Volume of Parts

Determines the Volume for the Part. **Settings:** 0 – 127

Meter

Indicates the audio output level of the Part.

Search

Utility

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Motion Control

Quick Edit

Arpeggio

Motion Seq

Super Knob

Knob Auto

Mixing Scene Play / Rec

> MIDI Audio

Overview

Performance Home

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

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

Operation [PERFORMANCE] → [Motion Control] → [Overview] or [SHIFT] + [PERFORMANCE]



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 152. For Part 1 – 16, see page 89.

Control Function (Controller Function)

Switches between the Performance Control and the Part Control. **Settings:** Performance Control, Part Control

Reference	Performance	Edit	Search	Utility	L	ive Set
Controller					Performa	nce
Determines wh The "Controller • Pitch Bend w	' here refers to:	n of the connection betwo	een "Controller" and Pa	rt is shown.	Home Motior	n Control
Modulation wRibbon Conti	oller	Assignable switches 1 ar	nd 2)		► Qu	verview uick Edit peggio
-	Q HOLD] (Motion sequer Q TRIGGER] (Motion sec				Su	otion Seq Iper Knob Iob Auto
Assignable	athar or pat the illustration	a of the connection betw	oon "Assignable" and E	Part is shown	Mixing	
	e" here refers to:	n of the connection betwo	een Assignable and F	ait is shown.	Scene Play /	Rec
Settings: Off, On					Au	Idio

Fader

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

Control sliders 1 – 8
 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

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.

The parameters with the indicators can be controlled by the Knobs 1 – 8. To do this, use the Knob Function [TONE]/[EQ/FX]/[ARP/MS] buttons for switching the knob operations.



Operation [PERFORMANCE] \rightarrow [Motion Control] \rightarrow [Quick Edit]

Reference	Performance	Edit	Search	Utility		Live Set
Part					Performa	ance
	Ce Performance Edit Search Utility Live Set es the currently selected Part. Select the Part you want to use Quick Edit with here. Performance Home Motion Control s: Common, Part 1 – 16 Motion Control Overview Quick Edit Overview a can edit the parameters commonly applied to all Parts. Outle Edit Arpeggio rformance Name Arpeggio Motion Seq					
Seangs. Comm	01, 1 att 1 - 10				Motio	on Control
When "Pa	art" is set to "Common'	,			O	verview
You can ed	it the parameters commonly	y applied to all Parts.			Qr	uick Edit
Performa	nce Name				A	rpeggio
Enters the o	desired name for the Perfor	mance. Performance	names can contain up to 20) characters.	M	otion Seq

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 105) 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 105) 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 105) of the Element/Operator Common.

Settings: -64 - +63

Edit Master EQ

Calls up the Master EQ display (page 159) for Common/Audio Edit.

Edit All Arp (Edit All Arpeggio)

Calls up the Arpeggio display (page 35) for Motion Control.

Touching the parameter calls up the input character display.

Edit Common MS (Edit Common Motion Sequencer)

Calls up the Motion Sequencer Lane display (page 151) 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 102) 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 103) for the Element/Drum Key/Operator Common. **Settings:** -64 – +63

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 105) 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 110, page 129, page 143) for the Element/Drum Key/Operator.

Settings: -64 - +63

Super Knob Knob Auto

Mixing

Scene

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MIDI

Audio

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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 110, page 129, page 143). 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 110, page 129, page 143) 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 110, page 129, page 143) 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

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

Pan (Performance Pan)

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

Var Return (Variation Return)

Determines the Return level of the Variation Effect. **Settings:** 0 – 127

Rev Return (Reverb Return)

Determines the Return level of the Reverb 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

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

erence	Performance	Edit	Search	Utility		Live Set
	Clock Unit (Common U				Perfo	rmance
	Arpeggio/Motion Sequence eter is applied to the Part wh			Action Sequencer	Н	ome
	s set to "Common."			Notion Dequencer	M	otion Control
By using th	is parameter, you can create	e a different Arpeggio	/Motion Sequencer type	from the original		Overview
one.						Quick Edit
Settings: 50						Arpeggio
	0%: The playback time will be do0%: The normal playback time.	oubled and the tempo is h	alved.			Motion Seq
	%: The playback time will be halv	ved and the tempo double	ed.			Super Knol
Common	Arp Gate Time (Commo	n Arneggio Gate T	'ime)			Knob Auto
	the Gate Time Rate (length			This is the offset	M	lixing
	e Gate Time Rate of the Arp	,			S	cene
Settings: -10	00 - +100				Р	lay / Rec
Common	Arp Velocity (Common	Arneggio Velocity	Rate)			MIDI

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

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 Seg Random when "MS FX" is set to on for the Lane. **Settings:** -64 - +63

Audio

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Mixing Scene Play / Rec MIDI Audio

Motion Control Overview Quick Edit Arpeggio Motion Seq Super Knob Knob Auto

■ When "Part" is set to Part 1 – 16

You can edit the parameters for the selected Part.

•	Perfo	ormance			G	x III	i de la	140	¢
Home	Overview	Part Category Main Bass		Part Category		Part Name			
		Das	5	Acoustic		Dance Off!			
Motion	Motion Quick	FEG Atk	FEG Decay	FEG Sus	FEG Rel	Edit Part 4	Edit Part 4	Edit Part 4	Part
Control	Edit	+0	+0	+0	+0	Part 4 EQ	Part 4 Arp	MS	Part 4
Mixing	Arpeggio	Cutoff	Resonance	FEG Depth	Portamento	Attack	Decay	Sustain	Release
Scene	Motion Seg	+0	+0	+0	64	+0	+0	+0	+0
	·	EQ Low Gain	EQ Mid Free	EQ Mid Gair	n EQ Mid Q	EQ Hi Gain	Pan	VarSend	RevSend
Play / Rec	Super Knob	+2.25dB	952.7Hz	3.38dB	0.7	0.00dB	C		
	Knob	Clock		Arp		Mc		tion Seq	
	Auto	Swing	Unit	Gate Time	Velocity	Amplitude	Shape	Smooth	Random
		+0	100%	100%	100%	+0	+0	+0	

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.

Part Name

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

The parameters below are same as the ones when "Part" is set to "Common" (page 30).

- FEG Atk (FEG Attack Time)
- FEG Decay (FEG Decay Time)
- FEG Rel (FEG Release Time)
- Cutoff
- Resonance
- FEG Depth
- Portamento (Portamento Time) The setting values differ from the ones which "Part" is set to "Common." Settings: 0 – 127
- Attack (AEG Attack Time)
- Decay (AEG Decay Time)
- Sustain (AEG Sustain Level)
- 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 105). Settings: -64 - +63

Edit Part EQ

Calls up the Part EQ display (page 70) for Part Edit.

Edit Part Arp (Edit Part Arpeggio)

Calls up the Arpeggio display (page 73) for Part Edit.

Edit Part MS (Edit Part Motion Sequencer)	Perfor	rmance	
Calls up the Motion Sequencer Lane display (page 81) for Part Edit.	Ho	Home	
EQ Low Gain (3 band EQ Low Gain)	Me	otion Control	
Determines the level gain for the Low band.		Overview	
Settings: -12dB - +12dB	•	Quick Edit	
EQ Mid Freq (3 band EQ Mid Frequency)		Arpeggio	
Determines the frequency for the Mid band.		Motion Seq	
Settings: 139.7Hz – 10.1kHz		Super Knob	
EQ Mid Gain (3 band EQ Mid Gain)		Knob Auto	
Determines the level gain for the Mid band.	Mi	ixing	
Settings: -12dB - +12dB	Sc	cene	
EQ Mid Q (3 band EQ Mid Q)	PI	ay / Rec	
Determines the EQ bandwidth of the Mid band.		MIDI	
Settings: 0.7 – 10.3		Audio	

Search

Utility

Live Set

Edit

EQ High Gain (3 band EQ Hi Gain)

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

Performance

Pan

Reference

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

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 76) 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 76) of each Arpeggio Select setting. **Settings:** 0% – 200%

ference	Performance	Edit	Search	Utility		Live Set	
Part Moti	on Seq Amplitude (Part	Motion Sequence	r Amplitude)		Perfor	mance	
Determines	Нс	Home					
Settings: -6	offset value for the Lane Mo $\frac{4}{4}$ - +63	stion Seq Amplitude wi	hen "MS FX" is set to on to	or the Lane.	Mc	Motion Control	
-			· • · · ·			Overview	
	on Seq Shape (Part Mo	•	• •			Quick Edit	
	s the Pulse Shape of the Mo offset value for the Lane Mo			en "MS FX" is set		Arpeggio	
	e Lane and "Control" is set					Motion Seq	
Settings: -1		Super Knob					
Part Motion Seq Smooth (Part Motion Sequencer Smoothness)						Knob Auto	
Determines	Determines the Smoothness of the Motion Sequencer for the selected Part.						
	offset value for the Lane Mo	tion Seq Smoothness ((page 83) when "MS FX" is	s set to on for the	Scene		
Lane. Settings: -64 – +63 Part Motion Seq Random						ay / Rec	
						MIDI	
						Audio	
	s the Random of the Motion Step Value of the Sequence	•		he degree to			

Settings: 0 - 127

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] \rightarrow [Motion Control] \rightarrow [Arpeggio]

								Viev	N	Arpeggio Ty
n	Perf	ormano	e			Ε	a	₩¢.	J 140	
Home	Overview	Part 9-16		Arp Sync (aster	Quantize Off	*	Category	/	Number	Range
		Part	Arp	Ca	ategory	1	Sub		Nam	ne u=
Motion Control	Quick Edit		ON	Syn Com	ıp	D&B / B	reakbeats	MA_I	Breakbeats	s 2 _N
		2	OFF	Piano		Rock		MA_	70s Rock _	N
Mixing	Arpeggio		ON	Control	/ HybridSeq	General		Mute	4/4	
Scene	Motion		ON	Control	/ HybridSeq	General		Mute	4/4	
Seq Seq			ON	Control	/ HybridSeq	General		Mute	4/4	
Play / Rec	Super Knob		OFF	No Assig	gn	No Assig	ŋn	Off		
	Knob		OFF	No Assig		No Assi		Off		
	Auto		OFF	No Assi		No Assi		Off		
		Arp Se	lect							
		1			3		5		7	8

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

Reference	Performance	Edit	Search	Utility	Live Set
Sync Quantize	e (Sync Quantize Valu	e)			Performance
Determines the a Arpeggio of mul		Home			
/ "peggio or mur	upic i alto is playing baci		noni i poggio stalits as s	50011 43 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. This setting is applied to the Number C [1] - [8] buttons on the panel in the Part Control status. **Settings:** Off, On

Arp Select (Arpeggio Select)

Determines the Arpeggio Types. This setting is applied to the Number C [1] - [8] buttons on the panel in the Performance Control status.

Settings: 1-8

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"

•	Perfo	ormano	ce		FX IIIIII	🥪 🖌 140	¢
Home	Overview	Part 1-8		ster 60	Category	Number	Range
		Part	Arp	Bank	Number	Na	me 🛛
Motion Control	Quick Edit		ON	Preset	296	MA_House Pf5	;
		10	ON	Preset	892	BA_6/8 Ballad	_N
Mixing	Arpeggio	11	OFF	Preset	0	Off	
Scene	Motion	12	OFF	Preset	0	Off	
	Seq	13	OFF	Preset	0	Off	
Play / Rec	Super Knob	14	OFF	Preset	0	Off	
	Knob	15	OFF	Preset	0	Off	
	Auto	16	OFF	Preset	0	Off	
		Arp Select					
		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.

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

Search

Utility

Live Set

■ When "View" is set to "Range"

n	Perf	ormano	e			Ð	<	endaria de la c	140	•
Home Overview		Part 1-8		ster	Quantize 60	,	Category	y Nun	nber	Range
		Part	Arp		Name	0=	Velocit	y Limit	Note	Limit
Motion Control	Quick Edit		ON	MA_Hou	ise Pf5		<u> </u>	127	C -2	G 8
		10	ON	BA_6/8	Ballad _N		_1	127	C -2	G 8
Mixing	Arpeggio	11	OFF	Off			_1	127	C -2	G 8
Scene	Motion	12	OFF	Off			_1	127	C -2	G 8
	Seq	13	OFF	Off			_1	127	C -2	<u>G 8</u>
Play / Rec	Super Knob	14	OFF	Off			_1	127	C -2	G 8
	Knob	15	OFF	Off			_1	127	C -2	G 8
	Auto	16	OFF	Off			_1	127	C -2	G 8
		Arp Se	lect							
		1		2	3	4	5	6	7	8

Per	Performance								
	Нс	ome							
	Мо	otion Control							
		Overview							
		Quick Edit							
		Arpeggio							
		Motion Seq							
		Super Knob							
		Knob Auto							
	Mi	xing							
	Sc	ene							
	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

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

Edit

Search

Utility

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Performance

Home

Mixing Scene Play / Rec MIDI Audio

Motion Control

Overview

Quick Edit Arpeggio Motion Seq Super Knob Knob Auto

Motion Seq (Motion Sequencer)

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

Operation	$[PERFORMANCE] \rightarrow [Motion Control] \rightarrow [Motion Seq]$
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A	Perf	ormar	ice				F	X		÷ J	140		0
Home	Overview			MS ister	Activ 3/8		Commo	on/Audio	ON	ON	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	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	n Seq Sel	ect									
			1	2	3	3	4	5		6	7		8

MS Master (Motion Sequencer Master Switch) Determines whether the Motion Sequencer is on or off

Determines whether the Motion Sequencer is on or off for the entire Performance. This setting is applied to the [MOTION SEQ 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. This setting is applied to the corresponding Number B [1] - [8] button on the panel in the Part Control status. Also you can turn the Motion Sequencer for Common/AD Part on or off by operating the ELEMENT/OPERATOR [COMMON] button on the panel. Please note that you cannot use the panel buttons when all Lane switches for the Part are set to off.

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. This setting is applied to the Number B [1] - [8] buttons on the panel in the Performance Control status.

Settings: 1-8

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Super Knob

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

Operation [PERFORMANCE] \rightarrow [Motion Control] \rightarrow [Super Knob]

Assignable Knob 1 – 8 Destination Value 1



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

Assignable Knob 1 – 8 Destination Value 2

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

Assignable Knob 1 – 8 Value

Determines the value for the Assignable Knobs 1 - 8. **Settings:** 0 - 127

Super Knob (Super Knob Value)

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

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

Performance

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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] → [Motion Control] → [Knob Auto]

•	Perfo	ormance		Ð			J 1	40			¢
Home	Overview	MS Master	Super Knob MS	MS FX Trigger	Sequence	Select	lect				
nome	Overview	ON	OFF	ON OFF	1 :	2 3	4	5	6		8
Motion Control	Quick Edit	Sync Part 👻	Arp/MS Grid	Random							
Mixing	Arpeggio	Part 1	1 20	0							
Scene	Motion Seq	Sync	Unit Multiply	Key On Reset 🔻	Loop	V	elocity	Limit			
Play / Rec	Super Knob	Beat	100%	Off	ON		1			127	7
	Knob Auto	묘 Load Sequence	묘 Edit Sequence	Cycle 16		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 [MOTION SEQ 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 the corresponding Knob Function [ARP/MS FX] button is set to on. **Settings:** Off, On

Trigger (Super Knob Motion Sequencer Trigger Receive)

Determines whether the signal from the [MOTION SEQ TRIGGER] button is received or not. When this is set to on, the Motion Sequence will begin whenever you press the [MOTION SEQ TRIGGER] button. **Settings:** Off, On

Sequence Select (Super Knob Motion Sequence Select)

Determines the Motion Sequence Type. This setting is applied to the Number B [1] – [8] buttons on the panel in the Performance Control status.

Settings: 1-8

Sync Part (Super Knob Motion Sequencer Sync Part)

Determines which Part is synchronized with the Super Knob Motion Sequencer. This setting is applied to the Note On Setting and the Arp/Motion Seq Grid setting for the selected Part. **Settings:** Part 1 – Part 16

Arp/MS Grid (Arpeggio/Motion Sequencer Grid)

Performance

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

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.

Loop (Super Knob Motion Sequencer Loop)

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

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 174).

Performance Home Motion Control Overview Quick Edit Arpeggio

Motion Seq

Super Knob

Knob Auto

Mixing

Scene

Play / Rec

MIDI

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Reference	Performance	Edit	Search	Utility	Live Set
	on Sequence Setting disp	lay. You can create	a custom Sequenc	e consisting of up to	Performance
sixteen steps.			-	Motion Seq Step Value	Motion Control
<u>n t</u>	Edit - Knob Automation - Se Cycle Amplitude 16 63	equence1 FX	Sequence Select	5 6 7 8	Arpeggio Motion Seq Super Knob
Polarity Unipolar	1 2 3 4 5	5 6 7 8	9 10 11 12	13 14 15 16	Knob Auto Mixing Scene
Bipolar	63 63 63 63 6	3 63 63 63	63 63 63 63	63 63 63 63	Play / Rec MIDI Audio
Store Sequence		rection	A A B A Prm1 Control 5 ON	Prm2 Control	
Load Sequence	Pulse B	rection	Prm1 Control		

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. This setting is applied to the Number B [1] – [8] buttons on the panel in the Performance Control status.

Settings: 1-8

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 - 8 or 9 - 16 by the Sliders 1 - 8 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 - 8 or 9 - 16 by the SCENE [1] – [8] buttons depending on the cursor position on the display. **Settings:** A, B

Reference	Performance	Edit	Search	Utility	Live Set			
Determines the described abov	se B (Super Knob Mot Curve Type of the param re determines which curve the horizontal axis indicat	eter for each of "Pulse e set here is used for ea	A" and "Pulse B." "Motic ach step. The vertical ax	kis indicates the	Performance Home Motion Control			
Settings: For Pre Square For Use When a Direction (Su	set Bank: Standard, Sigmoid, T Trapezoid, Tilt Sine, Bounce, er Bank: User 1 – 32 Library file is read: Curves in per Knob Motion Seq Direction of the Step Cur	Threshold, Bell, Dogleg, FM, Resonance, Sequence, Hold Library 1 – 8 uencer Step Curve I	AM, M, Discrete Saw, Smoo		Overview Quick Edit Arpeggio Motion Seq Super Knob Knob Auto			
Settings: Forward			- · · ·		Mixing			
Adjusts the sha	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							
	epending on the Curve Ty		ISO THE PAHIGE OF AVAIIAD	ie parameter	MIDI Audio			
•••	er Knob Motion Seque ether or not to control the	•	• •					

Knobs. This parameter is displayed only when "MS FX" is set to on. Also this parameter is not available

Stores the edited Motion Sequence data. For details about storing data, see "Store/Save" (page 176).

depending on the Curve Type.

Settings: Off, On

Store Sequence

Performance

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Mixing

From the Mixing display you can adjust the volume and effect settings for each Part. **NOTICE**

The settings in the Mixing display are stored as part of Performance data.

Mixing

Operation [PERFORMANCE] → [Mixing]

•	Perf	orma	nce						Ð	K		J 14	40		¢
Home		0=	0 =	0	D∎ Bass	0∎ Dr/Pc	$\left + \right $	$\left +\right $	$\left + \right $		∎ AD	0∎ Digi			0∎ Mst
Motion	Mute /Solo	Mute	Mute	Mute	Mute	Mute									
Control	Kbd Ctrl	Solo	Solo	Solo	Solo	Solo									
Mixing	<mark>3-band</mark> 2-band														
_	Rev Send	•	₀.	20	₀,	•.					\bigcirc	0	Re	ev Return	64
Scene	Var Send	,16	24	32	• ,	• ,					0	•	Va	ar Return	96
Play / Rec	Dry Level	(127)	(127)	(127)	(127)	(127)					(127)	(127)			
	Pan	\bigcirc	\odot	C	C	\bigcirc					C	R36		Pan	Ċ
	Part 1-16 Audio	1 106	² 110	³ 100	4 120	⁵ 102	6	7	8		100	100			127

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

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

Reference	Performance	Edit	Search	Utility	Live Set
	e of Parts 1 – 16 is s s the Mixing setting for				Performance
Function S	Switch Part Catego	ory			Motion Control
	Performance	FX	🚛 🦟 🚽 140	o	Overview
					Quick Edit
Home	Ba		AD Digi	Mst	Arpeggio Motion Seq
Motion	/Solo Mute Mute Mute M	lute Mute			Super Knob
Control	Kbd Ctrl Solo Solo Solo S	iolo Solo			Knob Auto
Mixing	3-band 0= 0= 0= 2-band		0=	0=	Mixing
				ev Return 64	Scene
Scene					Play / Rec
	Var Send 16 24 32			ar Return (96)	MIDI
Play / Rec	Dry Level (127) (127) (127) (1	127) (127)	127 127		Audio
	Pan C C C		C R36	Pan C	
	Part 1 2 3 4 4	6 7 8 			
	Audio 106 110 100 1	120 102	100 100	127	

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

A	Pert	formar	nce						F	→ ~	٦	140		ø
Home		0 =	□ = 	0 =		l∎ Dr/Pc	$\left + \right $	+	$\left +\right $	∎ AD	0 Digi			0∎ Mst
Motion Control	Mute /Solo Kbd Ctrl	Mute Solo	Mute Solo	Mute Solo	Mute Solo	Mute Solo								
Mixing	<mark>3-band</mark> 2-band				U=	U=								
Scene	Rev Send Var Send	\ge	0	20	0					 0	• •		Rev Return Var Return	64 96
Play / Rec	Dry Level		(127)	(127)	127	127					127)		
	Pan	Ċ	C	\odot	Ċ	Ċ				Ċ	R36		Pan	C
	Part 1-16 Audio	1 1 106	²	3 100	4 120	5 102				100	100			127

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

	Р	erforma	ince					Đ	× III	₩ ↔	J 140		ø
Ho	ome		I 0■ [Bass	0∎ Dr/Pc	$\left + \right $	$\left + \right $	$\left + \right $		∎0 AD	0∎ Digi		0∎ Mst
	tion Kb ntrol Ct	d IIIII											
Mb	<mark>3-ba</mark> xing 2-ba									0=			0=
	Rev Se	end O	0 20		0					0	•	Rev Return	64
Sci	ene Var Se	nd 16	24 32		•					0	•	Var Return	96
	lay Dry Le	vel (127)	127 (127) (127)	(127)					(127)	(127)		
	Pan		$\bigcirc \bigcirc $)ⓒ	C					C	R36	Pan	C
	Par 1-1 Aud	16	2 3 	4 120	5 102	6	7	8		100	100		127

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

Performance

Kbd Ctrl (Keyboard Control)

EQ

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

A	Perf	forma	nce						Ð	x III	₩ ↔	٦	140		ø
Home		0=	0=	0	0∎ Bass	0∎ Dr/Pc	$\left +\right $	$\left +\right $	$\left +\right $		∎ AD	0∎ Digi			0■ Mst
Motion Control	Mute /Solo Kbd Ctrl														
Mixing	<mark>3-band</mark> 2-band	0=	0=	0	0	0									
Scene	Rev Send Var Send	0	0	20	0 0						0	0 0		Rev Return Var Return	
Play / Rec	Dry Level	(127)	(127)	(127)	127	, (127)					127	127			
	Pan Part 1-16		C 2	() 3		<u>_</u>	6	7	8		<u>ح</u>	R36		Pan	C I
	Audio	106	110	100	120	102					100	1 00			127

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

Reference

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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

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

Search

Utility

Live Set

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.

A	Performance		FX	📖 🛹 🖌 140	
Home		Bass Dr/Pc	- +	0= 0= AD Digi	0∎ Mst
Motion Control	Mute /Solo Kbd Ctrl				
Mixing	2-band				
Scene	Rev Send 0 0 20 Var Send 16 24 32				Rev Return 64 Var Return 96
Play / Rec	Dry Level (127) (127) (127)	127 (127)		127 (127)	
	Pan C C C		8		Pan C
	1-16 Audio 106 110 100	120 102		100 100	127

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

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

Audio

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Scene

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 details about 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/slider, and press one of the SCENE [1] – [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] - [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. **Settings:** 1 - 8

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

Performance

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

Search

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



Performance							
Home							
Mo	otion Control						
	Overview						
	Quick Edit						
	Arpeggio						
	Motion Seq						
	Super Knob						
	Knob Auto						
Mi	ixing						
Sc	ene						
Pl	ay / Rec						
	MIDI						
	Audio						
	Ho Mo Mi						

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

n	Perf	ormance			F	X IIII	l ⊷⇔ J	140 🏢	•
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion	Memory	ON	ON	OFF		DN	OFF	o	FF
Control		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Mixing									
Scene	Rev Send	$\bigcirc \bigcirc$		\bigcirc		(12)			
	Var Send			\bigcirc		\bigcirc			
Play / Rec	Dry Level	(127) (127)	(127) (127)	(127)		(127)			
	Pan								
				,		i			
		106 110	100 120	102		91			

Rev Send (Reverb Send)

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

Var Send (Variation Send)

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

Edit

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Utility

Live Set

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

A	Perf	ormance			F	x	l è⊖tin J	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	N	OFF	o	FF
Mixing		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
6	Cutoff	+0 +12	+12 +0	+0					
Scene	Res		(+0) $(+0)$	+25					
Play / Rec	FEG Depth		+20+0	+0					
	Mute	Mute Mute	Mute Mute	Mute					
		125 100	125 100						

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

Performance

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

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			F	x	in the second s	90	•
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion	Memory	ON	ON	ON	c	N	ON	o	FF
Control		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Mixing									
Scene	Attack	+15 +15	+15 +15	+15					
	Decay	(+0) $(+0)$	+10 +0	+0					
Play / Rec	Sustain	+25 +25	+25 +0	+0					
	Release	+0 +0	(+0) $(+40)$	+40					
		1	3 4	5					

Pe	Performance									
	Но	Home								
	Мо	otion Control								
		Overview								
		Quick Edit								
	Arpeggio									
		Motion Seq								
		Super Knob								
		Knob Auto								
	Mi	xing								
	Sc	ene								
	Pla	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	x IIIII	¢ ← t	140	≡ ¢
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ON	ON	OFF	C	DN	OFF	C	N
Mixing		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Scene	Swing	(+0) $(+0)$	(+0) $(+0)$	+0		+0			
Play	Unit	50% (00%				00%			
/ Rec	Gate Time Velocity		(00% (00%	(00%)		100%			
		1 ²	3 4	5		9			

erence	Performance	Edit	Search	Utility		Live Set
	the Swing setting of Arpeg		encer for each Part in the	e selected Scene.		ormance Home
Settings: -12	about Swing, see "Quick Ec 20 – +120	uit (page 34).				Motion Control
Determines Scene. Settings: 50%	Unit Multiply) the Unit Multiply setting of % – 400%, Common			t in the selected		Overview Quick Edit Arpeggio Motion Seq
100 509	 0%: The playback time will be d 0%: The normal playback time. %: The playback time will be hal mmon: The value set in the United States of the set of t	Ived and the tempo double	ed.			Super Knob Knob Auto Mixing
	e (Gate Time Rate) the Gate Time Rate of Arpo - 200%	eggio for each Part in	the selected Scene.		- ⁻ -	Scene Play / Rec MIDI
Velocity (\	Velocity 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	formance			F	×	iri de la constante de la con	90	i o
Home		Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Scene 6	Scene 7	Scene 8
Motion Control	Memory	ON	ON	ON	C	N	ON		N
Mixing		Arp	Motion Seq	Super Knob	Mixing 1	Mixing 2	AEG	Arp/MS FX1	Arp/MS FX2
Scene	Amp Shape	-20 +0 +0 +0	+0 +52	+0					
Play / Rec	Smooth	-21 -10	-21 +16	+12					
	Random			(40) 5					

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 32).

Settings: -64 - +63

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 32). **Settings:** -100 - +100

Smooth (Motion Sequencer Smooth)

Determines the Smoothness of Motion Sequencer for each Part in the selected Scene. For details about Smoothness, see "Quick Edit" (page 32). **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 32). **Settings:** 0 – 127

Edit

Search

Utility

Live Set

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 memory device.

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



Press the [▶] (Play) button, or [PERFORMANCE] → [Play/Rec] → [MIDI]



Track Play Switch

Song Name

Indicates the selected Song Name. Touching the parameter calls up the menu for Load and Rename.

Performance Name

Indicates the selected Performance Name.

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.

The measure's number is in the left cell and the beat number and clocks are in the right cell.

Tempo

Determines the Song tempo.

Settings: 5 - 300 NOTE The tempo can be set as follows. [PERFORMANCE] → [UTILITY] → [Tempo Settings] (page 180)

Performance

ľ

Song Length

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

Reference	Performance	Edit	Search	Utility	Live Set
Store Tempo	>			P	Performance
-	Song tempo to the currently	selected Tempo.		_	Home
-	er is not available during:				Motion Control
New recordirPlayback	ing (No previously recordec	I Song data.)			Overview
Recording St	standby				Quick Edit
Recording					Arpeggio
Ū.					Motion Seq
Save As .mic		an Cong og o filo			Super Knob
	tore/Save display to save th not available during:	le song as a me.			Knob Auto
	ing (No previously recorded	d Song data.)			Mixing
 Playback 					Scene
 Recording St 	tandby				Play / Rec
 Recording 					MIDI
 An external r 	memory such as a USB flag	sh memory device is not cor	inected.		Audio
Song Length	n			-	

Indicates the length of the entire sequence.

Track Play Switch

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

Record and Record Standby

```
Operation
```

Press the [●] (Record) button, or

 $[\mathsf{PERFORMANCE}] \rightarrow [\mathsf{Play/Rec}] \rightarrow [\mathsf{MIDI}] \rightarrow [\bullet] \text{ (Record) button}$

A	Perf	orman	ice						Ð	Х			J	120			¢.
		Song	Name									0=	Perfor	mance I	lame		
Home	MIDI					Ne	ewSo	ng					T	he G	reen	Flash	
Motion	Audio	Time	Signat	ure	Positio	n							Tempo				
Control	Audio		4/4		0	01		:01:0	00					20			
Mixing		Rec Q	uantiz	e T	Record	Туре	τ Pι	inch In					Punch (Dut			
			60		Pu	nch		00	2		:01		C	04		:01	
Scene																	
Play / Rec		≻ ####		+++++++++++++++++++++++++++++++++++++++			+++++++++++++++++++++++++++++++++++++++								•	00:2	21
/ Ke C	Play	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
	Flay	1 00	2	3 00	4	5	6	7	8	9	10	11	12	13	14	15	16
		117	113	72	100		_		_	_		···					10

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

Edit

Search

Live Set

Performance

Home

Motion Control

Overview

Quick Edit

Arpeggio

Motion Seq

Super Knob

Knob Auto

Mixing

Scene Play / Rec

Þ

MIDI

Audio

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.

Audio

From the Audio display you can record your performance on the instrument as WAV format (44.1-kHz, 24bit, stereo) audio files to a USB flash memory device. It is possible to record continuously for up to 74 minutes (assuming that the USB storage device has sufficient free memory).

Playback and Playback Standby

Operation $[\mathsf{PERFORMANCE}] \rightarrow [\mathsf{Play/Rec}] \rightarrow [\mathsf{Audio}]$



Audio Name

Indicates the name of the selected Audio file.

Reference	Performance	Edit	Search	Utility	Live Set
Position (Aud	•				Performance
Determines the playback.	on during	Home			
playback.					Motion Control
Audia Valuma					A 1

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.

Record and Record Standby

Operation $[PERFORMANCE] \rightarrow [Play/Rec] \rightarrow [Audio] \rightarrow [\bullet]$ (Record) button



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

Quick Edit

Arpeggio Motion Seq

Super Knob Knob Auto

Mixing

Scene

Play / Rec MIDI

Audio

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.



 $[\mathsf{PERFORMANCE}] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \text{ selection} \rightarrow \mathsf{ELEMENT/OPERATOR} [\mathsf{COMMON}] \rightarrow [\mathsf{Part} \text{ Settings}] \rightarrow [\mathsf{General}]$

		n No A	Assign	Craz	y Arp Cockta	il
	Volume	Pan	Dry Level	VarSend	RevSend	Part Output
Pitch	106	С	127	16	0	MainL&R
Zone Settings	Mono/Poly		Key Assign	sign		
Zone	Mono	Poly	Single	Multi		
ransmit	Arp Play Only	Element Pan				
	OFF	ON				
	Velocity Limit		Note Limit		Velocity Offset	Velocity Depth
	1	127	C -2	G 8	64	64
	Zone ettings Zone	Zone ettings Zone ransmit Arp Play Only OFF Velocity Limit	106 C Zone ettings Mono/Poly Zone ransmit Mono Arp Play Only Element Pan OFF ON Velocity Limit	106 C 127 Zone ettings Mono/Poly Key Assign Zone ransmit Mono Poly Single Arp Play Only Element Pan OFF ON Velocity Limit Note Limit	106 C 127 16 Zone ettings Mono/Poly Key Assign Zone ransmit Mono Poly Single Arp Play Only Element Pan OFF ON Velocity Limit Note Limit	106 C 127 16 0 Zone ettings Mono/Poly Key Assign

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
Normai i art		յ Ըսու

Nor	mal	Part (AWM2) Edit					
Co	omn	non					
	Pa	rt Settings					
		General					
		Pitch					
		Zone Settings					
		Zone Transmit					
	Effect						
		Routing					
		Ins A					
		Ins B					
		EQ					
	Ar	peggio					
		Common					
		Individual					
		Advanced					
	Мо	otion Seq					
		Common					
		Lane					
	Мо	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					
		ement EQ					
AI	I Ele	ement					
	05	SC					
	Ba	lance					

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norr	rmal Part (FM-X) Comm	non/Audio
"Part Output" is set		:ffect processing) of t	the selected Part. This is		Normal Part (AWM2) Edi Common Part Settings
Settings: 0 - 127					General
Var Send (Variati	tion Send)				General Pitch
•	•	that is sent to the Vari	iation effect. This is availa	lable only when "Part	Zone Settings
Output" is set to "M				-	Zone Settings Zone Transmit
Settings: 0 – 127					Effect
Rev Send (Rever	rb Send)				Routing
Determines the leve	el of the selected Part t	that is sent to the Re	verb effect. This is availa	able only when "Part	Ins A
Output" is set to "M	lainL&R."				
Settings: 0 – 127					Ins B
Part Output (Par	rt Output Select)				EQ
Determines which a	audio output is used fo				Arpeggio
-	AsgnL&R, USB1&2USB298				Common
	Outputs in stereo (two char				Individual
-	: Outputs in stereo (two chan .USB29&30: Outputs in ste		8LE OUTPUT [L]/[R] jacks. 9&30) to the [USB TO HOST] t	terminal	Advanced
	utputs in mono (one channel				Motion Seq
-	utputs in mono (one channe				Common
	Contraction of the contract of) HOST] terminal.		Lane
	dio signal for the Part is outp	,out.			Mod / Control
Mono/Poly					Part LFO
			Part. Monophonic is for si	ingle notes only, and	Control Assign
polyphonic is for pla Settings: Mono, Poly	laying multiple simultan	neous notes.			Receive SW
-					Element
Key Assign (Key					Osc / Tune
			eived continuously, and v hthesizer Parameter Man		Pitch EG
Settings: Single, Multi	0	talls, reier to the oyn	(hesizer Parameter man	IUAI PDF document.	Filter
• •		of the same note is not r	possible. The first note will be	e stopped, then the next	Туре
note will be	e sounded.				Filter EG
			ack of the same note when it nat you would want to ring out		Scale
			at you would man to be		Amplitude
	Arpeggio Play Only)	-			Level / Pan
			events of the Arpeggio layback affect the tone of		Amp EG
Settings: Off, On	On, Only the nate -	13 01 1107 "200-1	aybaon anoor and the t	Jeneraler Meen.	Scale
-	· Dars Owitab)				Element LFO
•	lement Pan Switch)		lent (made via ([EDIT] \rightarrow	\sim Port coloction \rightarrow	Element EQ
			applied or not. When thi		All Element
pan position for eac	ich Element in the Part i				Osc
Settings: Off, On				-	Balance
Velocity Limit					
Determines the min Each Part will only s maximum value and	sound for notes played nd then the minimum va	d within its specified alue, for example "93	range within which each velocity range. If you firs to 34," then the Velocity ty Limit, refer to the Own	st specify the y range covers both	

Note Limit

Determines the lowest and highest notes of the keyboard range for each Part. Each Part 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

Reference	Performance	Edit	Search		Util	ity		L	ive Set
		Normal Part (AWM2)	Drum Part	Norma	ll Part (FM-X)		Commor	n/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

When Offset (below) is set to 64:



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



Pitch

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



 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Part Settings] \rightarrow [Pitch]$

Part Settings	General						
Effect	Ditat	Portamento	Master SW	Part SW			
Επесτ	Pitch		ON	ON			
Arpeggio	Zone Settings		Mode		Time	Time Mode	Legato Slope
Motion	Zone		Fingered	Full-time	64	Rate 1	0
Seq	Transmit	Note Shift	Detune	Pitch Bend↓	Pitch Bend ↑		
Mod / Control		+0	+0.0Hz	-2	+2		
		Micro Tuning Na	me 🔻	Root	口 Edit		
		Pure	Major	С	User Tuning		

Normal Part (AWM2) Edit Common

Co	omn	non
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	Ar	peggio
		Common
		Individual
		Advanced
	Mo	otion Seq
		Common
		Lane
	Мо	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	I Ele	ement
	05	6C
	Ba	lance

Portamento Master SW (Portamento Master Switch)

Portamento is used to create a smooth transition in pitch from the first note played on the keyboard to the next. The Portamento Master Switch determines whether Portamento is applied to the entire Performance or not.

Settings: Off, On

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
			1 2 3 4 1	1	
	rt SW (Portamento F ner Portamento is applie		t or not.		Normal Part (AWM2) Edit Common
Settings: Off, On					Part Settings
Portamento Mo	do				General
Determines the Po					Pitch
Settings: Fingered, I					Zone Settings
Fingered	Portamento is only applied	when you play legato (pla	aying the next note be	efore releasing the previous	Zone Transmit
one).	Pertensente is semiiad to all	l noton			
Full-time:	Portamento is applied to all	I NOTES.			Effect
Portamento Tin	ne				Routing
Determines the pi	tch transition time or rat	e when Portamento is	s applied.		Ins A
Settings: 0 – 127					Ins B
Portamento Tin	ne Mode				EQ
Determines how the	he pitch changes in time	e.			Arpeggio
Settings: Rate 1, Tin	me 1, Rate 2, Time 2				Common
	itch changes at the specified				Individual
	itch changes in the specified itch changes at the specified				Advanced
	itch changes in the specified				Motion Seq
					Common
Portamento Leg					Lane
	beed of the attack of leg her, the next being playe			Mono." (Legato notes	Mod / Control
Settings: 0 – 7	nei, the next being playe	ed belore the previou	s is released.)		Part LFO
-					Control Assign
Note Shift					Receive SW
•	tch (key transpose) sett	ing for each Part in se	emitones.		Element
Settings: -24 - +0 -	+24				Osc / Tune
Detune					Pitch EG
•	tch settings of the selec	cted Part in 0.1 Hz inc	rements.		Filter
Settings: -12.8Hz -	+0.0Hz – +12.7Hz				Туре
Pitch Bend ↑/\	↓ (Pitch Bend Range	e Upper/Lower)			Filter EG
	aximum Pitch Bend Rar	•••			Scale
Settings: -48 - +0 -	+24				Amplitude
Micro Tuning N	ame				Level / Pan
-	ning system for the sele	ected Part. For informa	ation on the variou	s tuning systems, see t	he Amp EG
	neter Manual PDF docu			<u> </u>	Scale
	perament, Pure Major, Pure				ne, Element LEO
Indian, Ara file is read	abic 1, Arabic 2, Arabic 3, Us I)	ser ι – α (when the User E	arik is selected), Libr	ary 1-1 – δ-δ (when the Libra	Element EQ
					All Element
Micro Tuning R		aina funation. This are	t noto potting re-	(not be necessary)	Osc
depending on the	ot note for the Micro Tur "Micro Tuning Name" t		or note setting may	HOL DE NECESSARY	Balance
Settings: C – B					

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

Edit User Tuning

Calls up the User Micro Tuning Setting display.

n t Edi	t - User Micro	Tuning		B	FX		」 1	40	0
Tuning No.	Tuning Name	[7]							
1	User	1							
C#	D#			F#		G#	-	\#	
+	0 +	0			-0	+0		+0	
c	D	E	F		G	A		В	
+0	+0	+0	+(C	+(C	+0		+0
									D
								li	nitialize

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.

	ma					
Co	omn	non				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Ef	fect				
	Routing					
		Ins A				
		Ins B				
		EQ				
	Arpeggio					
		Common				
		Individual				
		Advanced				
	Мо	otion Seq				
		Common				
		Lane				
	Mod / 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	I Ele	ement				
	05	SC				
	Ba	lance				

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 MONTAGE 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

 $[\mathsf{PERFORMANCE}] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part selection} \rightarrow \mathsf{ELEMENT/OPERATOR} [\mathsf{COMMON}] \rightarrow [\mathsf{Part Settings}] \rightarrow [\mathsf{Zone Settings}]$

•	上 Edit	- Part1 - Comm	างท	F	< ₩₩ ~	J 140	iii o
Part Settings	General						
Effect	Pitch	Zone	Int SW	Note Limit		Octave Shift	Transpose
Effect	Pitten	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	Transmit		MIDI Bank MSB	MIDI Pgm Num	MIDI Volume	MIDI Pan	
Mod / Control			000	001	100	С	
			MIDI Bank LSB				MIDI Send
			000				ON
Common	1	2 3	• 4 •	5 6	7 8		

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

Nor	mal	Part (AWM2) Edit				
Co	omm	hon				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Ef	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
	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	l Ele	ement				
	Os	SC				
	Ba	lance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Determines wheth	r ansmit Bank Select) her Bank Select MSB/LSI hle when the Transmit Ch	3 messages are transn	nitted to the exter	nal tone generator or not.	Normal Part (AWM2) Edit Common Part Settings
Pgm Change (Determines wheth	Fransmit Program Ch her Program Change me hen the Transmit Channe	ssages are transmitted	to the external to	ne generator or not. This	General Pitch Zone Settings Zone Transmit Effect
Determines wheth	nit Volume/Expressi ner volume messages ar e Transmit Channel is se	e transmitted to the ex	ternal tone gener	ator or not. This is not	Routing Ins A Ins B EQ
	Pan) ner Pan messages are tr e Transmit Channel is se		nal tone generato	r or not. This is not	Arpeggio Common Individual
Determines the B		mitted to the external	•	nen selecting the n "Transmit Bank Select"	Advanced Motion Seq Common Lane
MIDI Pgm Num Determines the P	(Program Change N rogram Change Number This is not available who	to be transmitted to th		enerator when selecting t to off.	Mod / Control Part LFO Control Assign Receive SW Element
	ansmit volume to the ext le when the Transmit Vo			Performance.	Osc / Tune Pitch EG Filter Type
	an to be transmitted to tl Ile when the Transmit Pa R63	0	ator when selecti	ng the Performance.	Filter EG Scale Amplitude
the external tone	rameter on, MIDI Bank, generator depending or le when the Transmit Ch	the setting of the Trar	smit Switch.	DI Pan is transmitted to Fransmit Switches are set	Level / Pan Amp EG Scale Element LFO Element EQ All Element

Reference	Performance	Edit		Searc	ch	Utili	ity		L	_ive Set	
		Normal Part (AWM2)	Dru	ım Part		Normal Part (FM-X)		Common/A	udio		

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.

Operation

 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Part Settings] \rightarrow [Zone Transmit]$

•	🛍 Edit	- Part1 - Co	mmon			FX	a	inda angle an	140 🔳	• •
Part	General	Pgm Change	Bank Sel	ect	Pitch Ber	nd	After Touch			
Settings		ON	O	N	0	N	ON			
Effect	Pitch									
	Zone									
Arpeggio	Settings	cc	Vol/Exp	Pan	MW	'	Sustain	FC1	FC2	FS
Motion	Zone	ON	ON	ON		ON	ON	ON	ON	ON
Seq	Transmit	A. SW1	A. SW2	MS Hold	н мs	Trigger	RB	вс		
Mod / Control		ON	ON	ON		ON	ON	ON		
		A. Knob1	A. Knob2	A. Knot	03 A. K	(nob4	A. Knob5	A. Knob6	A. Knob7	A. Knob8
		ON	ON	ON		ON	ON	ON	ON	ON
Common	1	2	3 4	•	5	6	7	8 AII		

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

After Touch (Transmit After Touch)

Determines whether After Touch 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 Pitch EG

Filter EG

Osc / Tune

Element

Normal Part (AWM2) Edit

Part Settings

Pitch

Effect

General

Zone Settings

Zone Transmit

Routing

Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assign Receive SW

Ins A Ins B EQ Arpeggio

Common

Filter	
Type	

	Scale
Ar	nplitude
	Level / Pan
	Amp EG
	Scale
El	ement LFO
El	ement EQ

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Pan (Transmit P		ransmitted to the externa	:		Normal Part (AWM2) Edit
		ontrol Change is set to c			Common Part Settings
Determines wheth external tone gene	erator or not.	erated by using the Mod ontrol Change is set to c		e transmitted to the	General Pitch Zone Settings Zone Transmit Effect
	er Sustain messages a	re transmitted to the ext ontrol Change is set to c		ator or not.	Routing Ins A Ins B EQ
Determines wheth the external tone g	enerator or not.	erated by pressing the o		troller are transmitted to	Arpeggio Common Individual Advanced Motion Seq
external tone gene	er MIDI messages gen erator or not.	erated by pressing the c ontrol Change is set to c		ch are transmitted to the	Common Lane Mod / Control Part LFO
Determines wheth transmitted to the	external tone generato	erated by pressing the		ASSIGN 2] buttons are	Control Assign Receive SW Element Osc / Tune Pitch EG
Determines wheth transmitted to the	external tone generato	erated by pressing the [OLD] button are	Filter Type Filter EG Scale
Determines wheth transmitted to the	external tone generato	erated by pressing the		RIGGER] button are	Amplitude Level / Pan Amp EG Scale Element LFO
RB (Transmit R i Determines wheth external tone gene	erator or not.	erated by using the Ribl ontrol Change is set to c		e transmitted to the	Element EQ All Element Osc Balance
Determines wheth not.		Breath Controller are trar ontrol Change is set to c		ternal tone generator o	r

Settings: Off, On

A.Knob1 – 8 (Transmit Assignable Knob)

Determines whether MIDI messages generated by using the Assignable Knobs 1 – 8 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

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.



 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Effect] \rightarrow [Routing]$



Insertion FX 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. **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.

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

Normal Part (AWM2) Edit

Part Settings

General Pitch

Routing

Ins A

Ins B EQ

Common

Individual

Advanced

Motion Seq Common

Lane

Osc / Tune Pitch EG

Туре

Scale

Amplitude

Filter EG

Level / Pan

Amp EG

Scale Element LFO

Element EQ

All Element

Osc

Balance

Element

Filter

Mod / Control

Part LFO

Control Assign

Receive SW

Arpeggio

Zone Settings

Zone Transmit

Common

Effect

eference	Performance	Edit	Search	u Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Determines the eff in the display, givi connection" (page Settings: Parallel, In Rev Send (Reve Determines the Se Reverb effect. Thi Settings: 0 – 127 Var Send (Varia Determines the Se	ng you a clear pictu ⇒ 19) of the "Basic S s A→B, Ins B→A erb Send) end level of the signa s is available only wi tion Send) end level of the signa	on Type) tion Effects A and B. Th re of how the signal is r	e setting changes outed. For details, fect A/B (or the by to "MainL&R." fect A/B (or the by	are shown on the diagra see the section "Effect passed signal) to the	Normal Part (AWM2) Edit
Part Output (Pa Determines the sp Settings: MainL&R, MainL&R AsgnL&F USB1&2. AsgnR: C USB1 - 3 Off: No au Envelope Follor Calls up the Enve	: Outputs in stereo (two : Outputs in stereo (two USB29&30: Outputs i utputs in mono (one cha outputs in mono (one cha 0: Outputs in mono (Cha dio signal for the Part is Wer	B29&30, AsgnL, AsgnR, US channels) to the OUTPUT [L channels) to the ASSIGNAE n stereo (Channels 1&2 – 29 annel) to the ASSIGNABLE (annel) to the ASSIGNABLE (annels 1 – 30) to the [USB Tr output.	/MONO]/[R] jacks. BLE OUTPUT [L]/[R] ja &30) to the [USB TO DUTPUT [L] jack. DUTPUT [R] jack. O HOST] terminal.		Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assign Receive SW
				140 🏢 Ö	Element Osc / Tune
	Edit - Envelope Followe	··		140 🏢 🔘	Pitch EG
Part Part 2	Gain Attack O.OdB 26 Input Level	Release			Filter Type Filter EG Scale
					Amplitude
	Envelope Follower Outp	ut			Level / Pan
					Amp EG
					Scale
					Element LFO
	Î				Element EQ
Cmn Mst Al) Ba	ss Dr/Pc			All Element
Ī		1 ⁵ 1 ⁶ ⁷ ⁸	9 10 11 12	13 14 15 16	Osc
127 1	00 106 110 100 1	20 102			Balance

Part (Input Source)

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

Gain (Envelope Follower Gain)

Determines the Input gain of the Input Source set in "Part." **Settings:** -24dB - 0dB - +24dB

Attack (Envelope Follower Attack)

Determines the attack time of the Envelope Follower. **Settings:** 1ms – 40ms

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

Release (Envelope Follower Release)

Determines the release time of the Envelope Follower. **Settings:** 10ms – 680ms

Input Level

Indicates the Input Level of the signal from the Input Source set in "Part."

Envelope Follower Output

Indicates the Output Level of the Envelope Follower.

Insertion FX Switch

Ins A (Insertion Effect A) Ins B (Insertion Effect B)

From the Insertion Effect A/Insertion Effect B display you can set parameters related to Insertion Effect.



 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Effect] \rightarrow [Ins A] / [Ins B]$



Effect Parameter

Insertion FX Switch (Insertion Effect Switch)

Determines whether the selected Insertion Effect is active or not.

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.

Normal Part (AWM2) Edit								
Co	omn	hon						
	Pa	rt Settings						
		General						
	Pitch							
		Zone Settings						
		Zone Transmit						
	Ef	fect						
		Routing						
		Ins A						
		Ins B						
		EQ						
	Arpeggio							
	Common							
		Individual						
		Advanced						
	Motion 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	I Ele	ement						
	05	SC						
	Ba	llance						

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

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.





 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Effect] \rightarrow [EQ]$

•	🛍 Edit	- Part1	- Coi	mmon		FX			٦	140			¢
Part Settings	Routing	EQ 2-band	+24 +12 0										
Effect	Ins A	EQ	-12 -24		50 100 20		11111 1k	2k			10k	20k	
Arpeggio	Ins B				EQ Low Gain	EQ Mid Gain	E	EQ Hi Gain					
Motion	50				+12.00dB	-6.38dB		+12.00	dB				
Seq	EQ				EQ Low Freq	EQ Mid Freq	E	EQ Hi Freq					
Mod / Control					51.2Hz	675.1Hz		7.40kH					
						EQ Mid Q	Τ						
						0.7							
Common	1	2		3	5	6 7	,	8	AII				

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

	mai	Fart (AVVIVIZ) EUIt							
Co	omm	ion							
	Pa	rt Settings							
		General							
		Pitch							
		Zone Settings							
		Zone Transmit							
	Effect								
		Routing							
		Ins A							
		Ins B							
		EQ							
	Ar	peggio							
		Common							
		Individual							
		Advanced							
	Мс	otion Seq							
		Common							
		Lane							
	Мс	od / Control							
		Part LFO							
		Control Assign							
		Receive SW							
Ele	eme	nt							
	Os	c / Tune							
	Pit	ch EG							
	Fil	ter							
		Туре							
		Filter EG							
		Scale							
	An	nplitude							
		Level / Pan							
		Amp EG							
		Scale							
	Ele	ement LFO							
	Ele	ement EQ							
All	l Ele	ement							
	Os	C							
	Ba	lance							

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

When "3-band EQ" is selected

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

•	1_ Edit	- Part1	- Cor	nmon			FX		•	J	140	=		Ø.
Part Settings	Routing	2-band												
Effect	Ins A	EQ	0 -12 -24	20	50 100	200		lliii	2k		5k	10k	20k	
Arpeggio	Ins B				EQ Low Gain		EQ Mid Gain	E	Q Hi Gain					
Motion					+12.00d8	3	-6.38dB	-	+12.000	βB				
Seq	EQ				EQ Low Freq		EQ Mid Freq	E	Q Hi Freq					
Mod / Control					51.2Hz		675.1Hz		7.40kH	z				
							EQ Mid Q	Γ						
							0.7							
Common	1	2)	3	4 5		6 7		8	All				

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

INOI	mai	Part (AWW2) Edit						
Co	omn	hon						
	Pa	rt Settings						
		General						
		Pitch						
		Zone Settings						
		Zone Transmit						
	Ef	fect						
		Routing						
		Ins A						
		Ins B						
		EQ						
	Ar	peggio						
		Common						
		Individual						
		Advanced						
	Мо	Motion Seq						
		Common						
		Lane						
	Мо	od / Control						
		Part LFO						
		Control Assign						
		Receive SW						
El	eme	ent						
	05	sc / Tune						
	Pi	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	SC						
	Ba	Balance						

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

■ When "2-band EQ" is selected

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

•	🛍 Edit	- Part1	- Con	nmon		FX		140	ø
Part Settings	Routing	3-band EQ <mark>2-band</mark>	+24 +12 0						
Effect	Ins A	EQ	0 - 12 - -24 -	20	50 100 20	0 500 1		5k 10k 20k	
Arpeggio	Ins B		EQ 1 1	Гуре	EQ 1 Gain	EQ 2 Type	EQ 2 Gain		
Motion		l	Hi	Shelf	+0.0dB	Peak/Dip	+12.0dB		
Seq	EQ				EQ 1 Freq		EQ 2 Freq		
Mod / Control					63.0Hz		230Hz		
							EQ 2 Q	Output Level	
							0.1	+0.0dB	
Common	1	2		3 4	5	6 7		II	

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

 $\ensuremath{\mathsf{LPF/\!HPF}}$ 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.





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

	mai								
Co	omm	ion							
	Ра	rt Settings							
		General							
		Pitch							
		Zone Settings							
		Zone Transmit							
	Effect								
		Routing							
		Ins A							
		Ins B							
		EQ							
	Ar	peggio							
		Common							
		Individual							
		Advanced							
	Мс	otion Seq							
		Common							
		Lane							
	Мс	od / Control							
		Part LFO							
		Control Assign							
		Receive SW							
El	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	I Ele	ement							
	Os	SC .							
	Ba	lance							
Reference	Performance	Edit	Search	Utility	Live Set				
-----------	-------------	--------------------	-----------------	---------------------	----------				
		Normal Part (AWM2)	Drum Part Norma	I Part (FM-X) Commo	n/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

Arpeggio

Common

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

Operation

 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Arpeggio] \rightarrow [Common]$

•	1_ Edit	- Part1 - Comm	ion	Ελ	< ₩₩ ~	- J 140	≡ ¢
Part Settings	Common	Arp Arp Part Mast		₹			
Effect	Individual	Hold			Key Mode	Velocity	Gate Time
Emect	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
							· · · · · · · · · · · · · · · · · · ·
Common	1	2 3	4	5 6	7 8	AII	

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)

	mai					
Co	Common					
	Part Settings					
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Ef	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
	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	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					
	Ba	lance				

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

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.

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. Settinas: 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%

Nor	mal	Part (AWM2) Edit
Co	mn	non
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	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
		ement EQ
All	Ele	ement
	09	SC
	Ba	lance

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

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.

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

·····			
Co	omm		
	Pa	rt Settings	
		General	
		Pitch	
		Zone Settings	
		Zone Transmit	
	Eff	fect	
		Routing	
		Ins A	
		Ins B	
		EQ	
	Ar	peggio	
		Common	
		Individual	
		Advanced	
	Мс	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	
Al	l Ele	ement	
	Os	SC	
	Ba	lance	

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	al Part (FM-X) Commo	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 163) and touch [Number] to determine the Arpeggio Type by specifying the Arpeggio Number.



 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Arpeggio]$ \rightarrow [Individual]

		.						
	🛍 Edit	- Part1	- Common		FX IIIII +	•	140	• •
Part Settings	Common	Arp Part	Arp Syn Master	c Quantize 80	₹			
		Arp	Category	Sub	Name	0=	Velocity	Gate Time
Effect	Individual	1	SynCp	D&B	MA_Breakbeats 2 _N		+0%	+0%
		2	SynCp	House	MD_Garage 2		+0%	+0%
Arpeggio	Advanced	3	SynCp	D&B	BA_Breakbeats 2 _N		+0%	+0%
Motion		4	SynLd	Techno	MA_Simple Lead 01		+0%	+0%
Seq		5	SynCp	General	MA_U/D B Oct4		+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%
Common	1	2	3	4 5	6 7 8	AII		

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. 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%

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: -100% - +100%

MONTAGE Reference Manual

Arpeggio Type Settings

Common				
	Ра	rt Settings		
		General		
		Pitch		
		Zone Settings		
		Zone Transmit		
	Ef	ect		
		Routing		
		Ins A		
		Ins B		
		EQ		
	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	SC .		
	Ba	lance		

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

Advanced

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



[PERFORMANCE] → [EDIT] → Part selection → ELEMENT/OPERATOR [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	Common				
	Pa	rt Settings			
		General			
		Pitch			
		Zone Settings			
		Zone Transmit			
	Eff	fect			
		Routing			
		Ins A			
		Ins B			
		EQ			
	Arpeggio				
		Common			
		Individual			
		Advanced			
	Mo	otion Seq			
		Common			
		Lane			
	Mo	od / Control			
		Part LFO			
		Control Assign			
		Receive SW			
El	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			
	Os	SC O			
	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.



 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Motion Seq] \rightarrow [Common]$

•	1 Edit	- Part1 - C	ommon		E	× "	iri l	140	≡ ¢
Part Settings	Common	Common							
Sectings		CI	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									
		Part							
Motion		CI	ock	A	rp		Moti	on Seq	
Seq		Swing	Unit	Gate Time	Velocity	Amplitude	Shape	Smooth	Random
Mod / Control		+0	50%	100%	100%	+0	+0	+0	\bigcirc
								Ar	p/MS Grid
									120
Common	1	2	3	5	6	7	8 A II		

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.

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

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	nal Part (FM-X) Comn	non/Audio
-	•	on Arpeggio Gate Tim	-		Normal Part (AWM2) Ed
) of the Arpeggio for the	entire Performance. Thi	is is the offset value	Common
Settings: -100% – +	Rate of the Arpeggio	for each Part.		-	Part Settings
-					General
-		Arpeggio Velocity Ra	-		Pitch
	elocity Rate of the Arp he Arpeggio for each F	peggio for the entire Perfo Part	ormance. This is the one	set value for the	Zone Settings
Settings: -100% – +		Part.			Zone Transmit
-					Effect
		(Common Motion Sec			Routing
	mplitude of the Motion otion Sequence change	n Sequencer for the entir	e Performance. "Amplitu	tude" determines	Ins A
		jes. on Seq Amplitude, which	n is also the offset value	for the Lane	Ins B
Amplitude. This re	esults in that both of th	he Common and Part MS			EQ
the Lane (only wh	nen "MS FX" is set to o				Arpeggio
Settings: -64 - +63					Common
Common Motic	on Seq Shape (Cor	nmon Motion Sequer	ncer Pulse Shape)		Individual
Determines the Pu	Pulse Shape of the Moti	tion Sequencer for the er		changes the step	Advanced
curve shape of the				-	Motion Seq
		on Seq Pulse Shape, whi of the Common and Part N			Common
		only when "MS FX" is set t			Lane
for the parameter)	<i>·</i>).	,			Mod / Control
Settings: -100 - +10	00				Part LFO
Common Motic	on Sea Smooth (Ca	ommon Motion Seque	encer Smoothness)		
	• •	tion Sequencer for the en	-		Control Assign
degree to which the	the time of the Motion S	Sequence is smoothly cl	hanged.		Receive SW
		on Seq Smoothness, whi			Element
		f the Common and Part Monly when "MS FX" is set		It the Smoothness	Osc / Tune
Settings: -64 – +63		ny mon	to on for the <u>Lang</u> .		Pitch EG
- -	C Davidson (C				Filter
	• •	Common Motion Sequencer for the optime	•	-" :- the decree to	Туре
	andom of the Motion S alue of the Sequence is	Sequencer for the entire is randomly changed.	Performance. Ranuom	1" IS the degree to	Filter EG
		on Seq Random when "N	vIS FX" is set to on for th	he Lane.	Scale
Settings: -64 - +63					Amplitude
Part Clock Swi	ng (Clock Swing)				Level / Pan
	• • • •	Motion Sequencer for the	e selected Part. This pa	arameter delays	Amp EG
		peats) to produce a swing			Scale
• +1 and higher:	Delay the Arpeggio no	otes.	2		Element LFO
• -1 and lower: A	dvance the Arpeggio r	notes.			Element EQ
• 0: Exact timing	as set by "Arpeggio/N	Notion Sequencer Grid"	Value, resulting in no sw	wing.	All Element
Judicious use of t	this setting lets you cre	eate swing rhythms and	triplet feels, such as sh	- Iuffle and bounce.	Osc
		U U	- 1- ,		

Part Clock Unit (Part Unit Multiply)

This adjusts the Arpeggio/Motion Sequencer playback time for the selected Part.

Settings: 50% – 400%, 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.

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 76) of each Arpeggio Select setting. **Settings:** 0% – 200%

Reference	Performance	Edit	Searc	n Util	lity	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common//	Audio
Determines how value for the Vel	city (Part Arpeggio Ve much the velocity of Arp ocity Rate (page 76) of e	eggio playback is offse		nal value. This is the e	offset Cor	nal Part (AWM2) Edit nmon Part Settings
Determines the	eq Amplitude (Part M Amplitude of the Motion S value for the Lane Motio	Sequencer for the selec	ted Part.	FX" is set to on for th	- e	General Pitch Zone Settings Zone Transmit Effect
Part Motion S Determines the I This is the offset	eq Shape (Part Motio Pulse Shape of the Motio value for the Lane Motio and "Control" is set to on	n Sequencer for the sel n Seq "Step Curve Para	ected Part.	84) when "MS FX" is s	– set to	Routing Ins A Ins B EQ Arpeggio
Determines the S	eq Smooth (Part Moti Smoothness of the Motion value for the Lane Motio 3	n Sequencer for the sel	ected Part.	IS FX" is set to on for	_	Common Individual Advanced Motion Seq
Determines the I	eq Random (Part Mot Random of the Motion Se f the Sequence is randor	quencer for the selecte	•	m" is the degree to w	/hich – –	Common Lane Mod / Control Part LFO
Determines the t displayed in cloo For Motion Sequ	Arpeggio/Motion Seq type of note that serves a cks. lencer, this parameter va d note), 80 (16th note triplet), ⁻	is the basis for the Quai lue is one step length.	_		Ele	Control Assign Receive SW ment Osc / Tune Pitch EG
480 (1/4					_	Filter Type 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 Norma	l Part (FM-X) Commo	n/Audio

Lane

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



[PERFORMANCE] → [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Motion Seq] → [Lane]

A	🛍 Edit	- Part1 - Comn	non			FX			÷	J 1	40			¢.
Part Settings	Common	Motion Seq Master SW	Lane	LaneSW	MS FX	Trigger	Seque	nce Sel						
sectings		Master SW	1	ON	ON	OFF	1	2	3	4	5	6	7	8
Effect	Lane	Motion Seq	2	ON	ON	OFF	1	2	3	4	5	6	7	8
Arpeggio		Part SW	3 0	OFF										
Motion			4	OFF										
Seq		Sync	Unit Mul	tiply 🔻	Key On R	leset 🔻	Loop		Ve	locity	Limit			
Mod / Control		Tempo	400	0%	1st	-On		ON		1			127	
		口 Load Sequence	Edit Se	quence	Cycle		1 2	34	56	78	9 10	11 12	13 14	15 16
					1				4.4	4	11	.1	1	.11.11
Common	1	2 3	• 4		5	6	7	s	•	AII				

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 corresponding Knob Function [ARP/MS FX] button is set to on.

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.

Settings: 1-8

Normal	Part	(AWM2)) Edi

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

Normal Part (AWM2) Drum Part Normal Part (FM-X) Common/Audio	Reference	Performance	Edit	Search	Utility	Live Set
			Normal Part (AWM2)	Drum Part Norm	nal Part (FM-X) Comm	on/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 89)) 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 174).

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Normal	Part	(AWM2)	Edi

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_	Pa	rt Settings
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		Pitch
		Zone Settings
_		Zone Transmit
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		Routing
		Ins A
		Ins B
		EQ
_	Ar	peggio
_		Common
		Individual
		Advanced
_	Мс	otion Seq
_		Common
		Lane
	Мо	od / Control
_		Part LFO
		Control Assign
		Receive SW
Ele	me	ent
	05	sc / Tune
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
_	An	nplitude
_		Level / Pan
		Amp EG
		Scale
_	Ele	ement LFO
_	Ele	ement EQ
All	Ele	ement
	05	6C
_	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	nal 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.

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 - 8 or 9 - 16 by the Sliders 1 - 8 depending on the cursor position on the display. **Settings:** 0 - 127

MONTAGE Reference Manual

Balance

Comr	non
Pa	art Settings
	General
	Pitch
	Zone Settings
	Zone Transmit
Ef	fect
	Routing
	Ins A
	Ins B
	EQ
A	rpeggio
	Common
	Individual
	Advanced
M	otion Seq
	Common
	Lane
M	od / Control
	Part LFO
	Control Assign
	Receive SW
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	Туре
	Filter EG
	Scale
A	mplitude
	Level / Pan
	Amp EG
	Scale
EI	ement LFO
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Reference	Performance	Edit	Sear	:h U	tility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X	() Common/A	udio
-	tep Type (Lane Motio h Step Type of the Motior			the Step Types A an	d D for	al Part (AWM2) Edit
	r 9 - 16 by the SCENE [1]				splay.	nmon Part Settings
 Pulse A / Puls Determines the described abov Settings: For Press Square, For deta For Use When a Direction (Lan Determines the Settings: Forward Prm1/Prm2 (L Adjusts the shap This parameter values differs deta Determines where the Settermines where the Settermines	Se B (Lane Motion Sec Curve Type of the parame e determines which curve set Bank: Standard, Sigmoid, T Trapezoid, Tilt Sine, Bounce, I ails, see the Synthesizer Param r Bank: User 1 – 32 Library file is read: Curves in L Ince Motion Sequence Direction of the Step Curve I, Reverse Cane Motion Sequence pe of the Step Curve for the is not available dependin epending on the Curve Ty E Motion Sequencer S ether or not to control the trameter is displayed only	eter for each of "Pulse e set here is used for each ihreshold, Bell, Dogleg, FM Resonance, Sequence, Hol leter Manual PDF documen Library 1 – 8 r Step Curve Direct ve for the Motion Sequence er Step Curve Paran he Motion Sequence. g on the Curve Type. A rpe. tep Curve Shape Co shape of the Step Curve	A" and "Pulse ach step. , AM, M, Discrete d t. ion) ence. neter) Ilso the range ontrol Switc re for the Motio	Saw, Smooth Saw, Triang of available paramete n)	gle, er rating	General Pitch Zone Settings Zone Transmit Effect Routing Ins A Ins B EQ Arpeggio Common Individual Advanced Motion Seq Common Lane
depending on the Settings: Off, On						Part LFO Control Assign Receive SW
Store Sequen Stores the edite	ce d Sequence data. For de	tails about storing data	, see "Store/Sa	ave" (page 176).		nent Dsc / Tune Pitch EG
					_	Filter Type Filter EG Scale
						Amplitude
					_	Level / Pan Amp EG Scale
						Element LFO Element EQ Element
					(Dsc

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Balance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	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.

 $[\mathsf{PERFORMANCE}] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part\ selection} \rightarrow \mathsf{ELEMENT/OPERATOR\ [COMMON]} \rightarrow$ [Mod/Control] → [Part LFO]

A	1_ Edit	- Part1 - Comn	non		F	Х		€ €	٦	140			¢
Part Settings	Part LFO	LFO Wave Triang	le 🔨	Edit Us	er LFO			\checkmark	/		\checkmark	/	\sim
Effect	Control Assign	Tempo Sync ON	Tempo Speed			Dela	y O	Fade	In O	Hold He	old	Fade 6	Out 54
Arpeggio	Receive	Key On Reset 🔻	Loop		Phase			Eler	nent Pl	nase Of	fset		
	SW	Off	ON		0°	0°	0°	0°	0°	0°	0°	0°	0°
Motion Seq		Destination		-	Depth		2	3 Ele	4 ment D	5 epth Ra	6 Itio		8
Mod / Control			Cutoff		0	126	126	126	126	126	126	126	126
Control			Pan		0	126	126	126	126	126	126	126	126
			Pan		0	126	126	126	126	126	126	126	126
Common	1	2 3	• 4 •	5	6	7	•	8	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)

— Co	mmon
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Co	omn	ion
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Мо	od / Control
		Part LFO
		Control Assign
		Receive SW
El	eme	ent
	Os	sc / Tune
	Pit	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
		ement EQ
AI	I Ele	ement
	05	SC
	Ba	lance

Operation

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

■ When "Tempo Sync" is set to "OFF"

A	🕇 Edit	- Part1 - Comn	non		F	Х		$\stackrel{d}{\longmapsto}$	٦	140			¢
Part Settings	Part LFO	LFO Wave Triang	le 🔨	Edit Us	⊑ er LFO	'₩	\mathbb{N}	\mathbb{N}	\mathbb{N}	\mathbb{N}	\mathbb{W}	\mathbb{N}	\mathbb{W}
F.(Control	Tempo Sync	Speed	Random	Speed	Dela		Fade	In	Hold		Fade	Out
Effect	Assign	OFF	32	(C		0		0	Н	old	6	64
Arpeggio	Receive SW	Key On Reset 🔻	Loop		Phase			Eler	nent Pl	nase Of	fset		
	510	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	126	126	126	126	126	126	126	126
Control			Pan		0	126	126	126	126	126	126	126	126
			Pan		0	126	126	126	126	126	126	126	126
	_												
Common	1	2 3	• 4 •	5	6	7	•	8	All				

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"



Normal Part (AWM2) Edit Common

Co	omm	ion
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	iect
		Routing
		Ins A
		Ins B
		EQ
	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	ch EG
	Fil	ter
-		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
All	Ele	ement
	Os	C
	Ba	lance

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)

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Delay (LFO Dela Determines the de comes into effect. Settings: 0 – 127	elay time between the mo	oment you press a key	on the keyboard :	and the moment the LF	Part Settings
Fade In (LFO Fa Determines the an Settings: 0 – 127	ade In Time) mount of time for the LFC	C effect to fade in (afte	r the "Delay" time	has elapsed).	General Pitch Zone Settings Zone Transmit
Hold (LFO Hold Determines the ler Settings: 0 – 126, Ho Hold: No f	ngth of time during whic old	ch the LFO is held at its	; maximum level.		Effect Routing Ins A
	Fade Out Time) ne over which the LFO e	effect is faded out (afte	r the "Hold" time	nas elapsed).	Ins B EQ Arpeggio Common
Determines wheth Settings: Off, Each-0	The LFO resets with each ne			e specified by the Phase	Individual Advanced Motion Seq Common
parameter. phase as tr is played.	he LFO resets with each note If you play a second note w riggered by the first note—in	vhile the first is being held, t	the LFO continues cy	cling according to the same	Part LFO
Loop (LFO Loo Determines wheth Settings: Off, On	p) her the LFO Wave plays	through a single time (off) or continuous	ly (on).	Control Assign Receive SW Element
Phase (LFO Phase) Determines the sta Settings: 0°, 90°, 12	arting phase point for th	ne LFO Wave when it is	reset.		Osc / Tune Pitch EG Filter
	Offset (LFO Elemen fset values of the "Phase 20°, 180°, 240°, 270°		or the respective	Elements.	Type Filter EG Scale
	O Destination) nctions which will be co Effect A Parameter 1 – 24, Ins			utoff, Resonance, Pan, E.LF	Amplitude Level / Pan -O Scale
Depth (LFO Dep Set the LFO Wave Settings: 0 – 127	pth) Depth (amplitude) for "	'Destination" paramete	r (above).		Element LFO Element EQ All Element Osc
Element Depth					Osc

When set to "Off," the LFO effect is not available. This is available only when Element-related parameters are set in "Destination."

Settings: Off, 0 - 127

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

шш 🧠 FX J 140 Edit - Part1 - User LFO A Cycle 16 steps 10 11 13 14 15 8 6 +63 64 +28 -60 -13 -17 -46 +11

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.

	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	Ar	peggio
		Common
		Individual
		Advanced
	Мс	otion Seq
		Common
		Lane
	Мс	od / Control
		Part LFO
		Control Assign
		Receive SW
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	Os	sc / Tune
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	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
	· _	lance
	Ba	llance

Normal Part (AWM2) Edit

Common

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

Control Assign

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.

Operation

$[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow Interpretation (Common) and (Common)$ $[Mod/Control] \rightarrow [Control Assign]$

A	🛍 Edit	- Part1 - Comn	างท		Ð	K		÷]′	140		ø
Part Settings	Part LFO	Auto Display Select	Filter AsgnKnob 1	•	Display N	Name Assig	gn 1	[7]		Page 1	
Effect	Control Assign	Destination 3 Elem Pa	in	+							
Arpeggio	Receive SW	Source	Element SW	1	2	3	4	5	6	7	8
Motion		AsgnKnob 1		ON	ON	ON	ON	ON	ON	ON	ON
Seq		Curve Type		Polarity	/	Ratio		Param 1			
Mod / Control		Standard		Uni	Bi	+3	32	ŗ	5		
		Destination to Name	묘 Edit User Curve							Del	D lete
Common	1	2 3	• 4 •	5	6	7	8	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.

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

Display Name

Determines the name of each Assignable Knob 1 – 8 which is displayed in the Performance Play display (page 26). This is available only when "AsgnKnob 1 - 8" is set in "Source."

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 \rightarrow Pitch
To change the speed of the Rotary Speaker:	Ins A/B \rightarrow InsA/B SpdCtrl ^{*1}
To apply a Wah pedal effect:	Ins A/B \rightarrow InsA/B PdICtrI *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

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Common				
_	Pa	rt Settings		
		General		
		Pitch		
		Zone Settings		
		Zone Transmit		
	Ef	fect		
		Routing		
		Ins A		
		Ins B		
		EQ		
	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		
	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 Normal	Part (FM-X) Commo	n/Audio	

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

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)



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
	Ar	peggio
		Common
		Individual
		Advanced
	Мс	otion Seq
		Common
		Lane
	Мс	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
		ement EQ
AI	l Ele	ement
	Os	C
	Ba	lance

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

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

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."

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."

•	🕇 Edit -	User Curve			FX		🥪 🚽 14	10	¢
Curve No.	Cur	ve Name		^[T] CurveTyp	e				
1		User		Line	ar	Step			
							_		
Input	1	2	3	4	5	6	7	8	
	0	18	36	54	72	90	108	127	
Output	1	2	3	4	5	6	7	8	
	0	18	36	54	72	90	108	127	

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

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Co	mn	non
-	Pa	rt Settings
		General
		Pitch
		Zone Settings
_		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
-	Ar	peggio
-		Common
		Individual
		Advanced
-	Мо	otion Seq
-		Common
		Lane
-	Мс	od / Control
-		Part LFO
		Control Assign
		Receive SW
Ele	eme	ent
	05	sc / Tune
-	Pi	ich EG
-	Fil	ter
-		Туре
		Filter EG
		Scale
-	Ar	nplitude
-		Level / Pan
		Amp EG
		Scale
-	Ele	ement LFO
-	Ele	ement EQ
All	Ele	ement
	05	6C
-	Ba	lance

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

Output

Determines the Output level of the Curve. **Settings:** 0 – 127

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.



 $[\texttt{PERFORMANCE}] \rightarrow [\texttt{EDIT}] \rightarrow \texttt{Part selection} \rightarrow \texttt{ELEMENT/OPERATOR} [\texttt{COMMON}] \rightarrow [\texttt{Mod/Control}] \rightarrow [\texttt{Receive SW}]$

A	🛍 Edit	- Part1 - Co	mmon			FX		<⇒ J′	140	•
Part	Part	Pgm Change	Bank Sel	lect	Pitch Bend	Af	ter Touch			
Settings	LFO	ON	0	N	ON		ON			
Effect	Control Assign									
Arpeggio	Receive SW	cc	Vol/Exp	Pan	MW	Su	ustain F	°C1	FC2	FS
Motion		ON	ON	ON	0	N	ON	ON	ON	ON
Seq		A. SW1	A. SW2	MS Hold	i MS Tri	igger RI	B	зс		
Mod / Control		ON	ON	ON	0	N	ON	ON		
		A. Knob 1	A. Knob 2	A. Knob	3 A. Kno	b4 A.	. Knob 5 🛛 🖌	A. Knob 6	A. Knob 7	A. Knob 8
		ON	ON	ON	0	N	ON	ON	ON	ON
Common	1	2	3 4		5 6	•	7 8	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

Co	mm	non
-	Pa	rt Settings
		General
		Pitch
		Zone Settings
-		Zone Transmit
-	Eff	fect
		Routing
		Ins A
		Ins B
-		EQ
-	Ar	peggio
		Common
		Individual
_		Advanced
_	Мс	otion Seq
		Common
-		Lane
_	Мс	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
		ement EQ
All	Ele	ement
-	Os	SC
	Ba	alance

Reference	Performance	Edit	Searc	:hl	Jtility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-	X) Co	ommon/Audio
		· · · ·			<i>′</i>	
	a n) er Pan messages are re e when the Receive Co		Off.			Normal Part (AWM2) Edit Common
Settings: Off, On		-				Part Settings
MW (Passivo M	odulation Whool)					General
•	odulation Wheel) er MIDI messages gen	erated by using the M	odulation Whee	are received or no	ht	Pitch
	e when the Receive Co					Zone Settings
Settings: Off, On						Zone Transmit
Sustain (Receiv	o Sustain)					Effect
-	er Sustain messages a	re received or not				Routing
	e when the Receive Co		Off.			Ins A
Settings: Off, On						Ins B
EC1/EC2 (Passi	ve Feet Centreller)					EQ
•	ve Foot Controller) er MIDI messages gen	erated by pressing the	ontional Foot	Controller are receiv	ued or	Arpeggio
not.	or miler moodagee gen		optional i oot			Common
	e when the Receive Co	ontrol Change is set to	Off.			Individual
Settings: Off, On						Advanced
FS (Receive Foo	ot Switch)					Motion Seq
•	er MIDI messages gen	erated by pressing the	optional Foot	Switch are received	l or not.	Common
	e when the Receive Co	ontrol Change is set to	Off.			Lane
Settings: Off, On						Mod / Control
A. SW1/A. SW2	(Receive Assignabl	e Switch)				Part LFO
	er MIDI messages gen	•	e [ASSIGN 1] a	nd [ASSIGN 2] butto	ons are	Control Assign
received or not.			0.11			Receive SW
Settings: Off, On	e when the Receive Co	ontrol Change is set to	Off.			Element
Settings. On, On						Osc / Tune
•	ve Motion Sequence	•				Pitch EG
	er MIDI messages gene	erated by pressing the	[MOTION SEC	HOLD] button are r	received	Filter
or not. This is not availabl	e when the Receive Co	ontrol Change is set to	Off			Туре
Settings: Off, On		sharige to cor to	011.			Filter EG
		- · 、				Scale
	eive Motion Seque				aro	Amplitude
received or not.	er MIDI messages gen	erated by pressing the	EINICTION SEC		ale	Level / Pan
	e when the Receive Co	ontrol Change is set to	Off.			Amp EG
Settings: Off, On						Scale
RB (Receive Ri h	bon Controller)					Element LFO
	er MIDI messages gen	erated by using the Ri	bbon Controlle	r are received or no	t.	Element EQ
This is not availabl	e when the Receive Co					All Element
Settings: Off, On						Osc
BC (Receive Bre	eath Controller)					Balance
Determines whether	er MIDI messages for E e when the Receive Co					
A.Knob 1 – 8 (B	eceive Assignable I	(nob)				

A.Knob 1 – 8 (Receive Assignable Knob)

Determines whether MIDI messages generated by using the Assignable Knobs 1 – 8 are received or not. This is not available when the Receive Control Change is set to Off. **Settings:** Off, On

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	n/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] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Osc/Tune]

n L Edit	- Part1	- Element	1		FX		₩ <u>~</u>	- J 130		0
Osc / Tune	ON	^{Bank} Preset	Number 3	Category Piano		itegory Piano	Nam	e CF3 Strete	ch Soft	∎ St
Pitch EG	XA Contr Nori		em Group 📍	Elem Connec	:t 🔻			New Waveforn	₽ 1	
Filter	Tune	Coarse	Fine	Pitch/Vel F	ine/Ke	y Randor	n			
Amplitude	Vel Cros	+0 s Fade	+0 Key On Delay	+0 Tempo Sync	+0 L	O				
Element LFO	C)		OFF		0				
Element EQ	Velocity		50	Note Limit C -2		G 5	-	Center Key C	Pitch/	^{Кеу} 00%
Common 1	2	3 0	4	5 6	•	7	8	AII	Mute	Solo

Element Switch

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.

_		
Co	omm	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Eff	ect
		Routing
		Ins A
		Ins B
		EQ
	Arp	peggio
		Common
		Individual
		Advanced
	Мо	tion Seq
		Common
		Lane
	Мо	d / Control
		Part LFO
		Control Assign
		Receive SW
	eme	
	Os	c / Tune
	Pit	ch EG
	Filt	ter
		Туре
		Filter EG
		Scale
	Am	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
AI	l Ele	ment
	Os	с
	Ва	lance

ference	Performance	Edit	Search	h Utility	/ Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
		button is turned On, the Eleme			Normal Part (AWM2) Ed
		button is turned On, the Eleme		—· · · · · ·	Common
A.SW Οπ	When both the [ASSIGN	N 1] and [ASSIGN 2] buttons a	.re turned Off, the ⊨	Element will sound.	Part Settings
Elem Group (El	ement Group)				General
Determines the gr	roup for XA Control. Al	All Elements that have the			e Pitch
	er. This setting does r	not apply when the XA Co	ontrol paramete	rs of all Elements are set	t to Zone Settings
Normal. Settings: 1–8					Zone Transmit
-					Effect
	(Element Connecti	•	· · · · · · -	►	Pouting
	n Insertion Effect (A or ion Effects for the spe	r B) is used to process ea	1ch individual El	ement. Set this to "Thru"	" to Ins A
bypass the Inserti Settings: Thru, InsA		Clilea element.			Ins B
-					EQ
New Waveform				" A 19	Arpeggio
	stored in the USB flag	ash memory as "Waveforr	n." For details o	n loading, see "Load"	Common
(page 174). After the Waveforr	m is loaded, the Edit V	Waveform parameter (be	low) will be ava	ilable.	Individual
			,		Advanced
Coarse (Coarse	•	• ••			
Determines the pit Settings: -48 – +48	itch of each Element ir	n semitones.			Motion Seq
Settings40 = 1 -0					Common
Fine (Fine Tune	•				Lane Mod / Control
	ne tuning for the pitch	of each Element.			Mod / Control
Settings: -64 – 63					Part LFO
Pitch/Vel (Pitch	Velocity Sensitivi	íty)			Control Assign
•	-	ed Element responds to v	velocity.		Receive SW
Settings: -64 - 63					Element
		play the keyboard, the more the			Osc / Tune
-	values: The harder you p nge in pitch.	play the keyboard, the more th	ie pitch ialis.		Pitch EG
	0				Filter
	Fine Key Follow S	• •			Туре
Determines the de Fine Tuning.	gree to which the not	otes (specifically, their pos	sition or octave	range) affect the pitch in	n Filter EG
Settings: -64 – 63					Scale
-	values: The pitch of lowe	er notes drops and that of high	ier notes rises.		Amplitude
Negative	values: The pitch of lowe	er notes rises and that of high	er notes drops.		Level / Pan
Pandom (Band	om Pitch Depth)				Amp EG
•	• •	of the Element for each no	ote vou plav. Th	e higher the value, the	Scale
greater the pitch v				o mg. o. a. <u>a</u> . <u>.</u>	Element LFO
Settings: 0 - 127					Element EQ
Vel Cross Fade	e (Velocity Cross Fa	ade)			All Element
	• •	of an Oscillator decrease	es in proportion	to the distance of Veloci	ty Osc
-	the Velocity Limit settin				Balance
Settings: 0 - 127					
-	-	dually the volume decreases.			
0: No sour	JIC				

Determines whether or not "Key On Delay" (below) is synchronized to the tempo. **Settings:** Off, On

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 Element. This is not available when "Key On Delay Tempo Sync" is set to on. **Settings:** 0 – 127

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

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.



MONTAGE Reference Manual

or	ma	Part (AWM2) Edit						
Cc	omn	non						
	Pa	rt Settings						
	General							
	Pitch							
	Zone Settings							
		Zone Transmit						
	Ef	fect						
		Routing						
		Ins A						
		Ins B						
		EQ						
	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						
		ement EQ						
All	I Ele	ement						
	09	SC						

Balance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	I Part (FM-X) Commo	n/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 94) and the Key Edit for the Drum Part Edit (page 126).



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

MONTAGE Reference Manual

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

ference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Volume Determines the of Settings: 0 – 255	output volume of the sele	cted Key Bank.			Normal Part (AWM2) Ec Common
Settings: 0 – 255					Part Settings
Pan					General
	stereo pan position of the	e selected Key Bank.			Pitch
Settings: L63 – C	– R63				Zone Settings
Tune Coarse (Coarse Tune)				Zone Transmit
Determines the	pitch of the selected Key	Bank in semitones.			Effect
Settings: -64 - +6	3				Routing
Tune Fine (Fin	ne Tune)				Ins A
•	fine tuning for the pitch o	f the selected Key Bank			Ins B
Settings: -64 - +6	e ,	,			EQ
Doloto Kovbor	nk (Delete Key Bank)				Arpeggio
Deletes the sele	• • •				Common
	otou rtoy Burnt.				Individual
-	(Add Key Bank)				Advanced
Adds new Key E	Bank to the selected Wav	etorm.			Motion Seq
					Common
					Lane
Pitch EG					Mod / Control
					Part LFO
	G display you can make				
	sound changes over time t a note is pressed on the				Receive SW
	a note is pressed on th	s hoyboard to the morne		μu.	Element
Operation [PERFORMANCE] \rightarrow [EDIT]	\rightarrow Part selection \rightarrow Eleme	nt selection \rightarrow [Pit	ch EG]	Osc / Tune

Operation $[\mathsf{PERFORMANCE}] \rightarrow [\mathsf{EDIT}] \rightarrow \mathsf{Part} \ \mathsf{selection} \rightarrow \mathsf{Element} \ \mathsf{selection} \rightarrow [\mathsf{Pitch} \ \mathsf{EG}]$

n t	Edit - Part1	- Elemen	t1		F	<	······ ···	J 130		iii o
Osc / Tune										
Pitch EG										
Filter	Time	Hold	Attack	Decay1	Decay	2	Release	Center Key	0=	Time/Key
_		0	40	64	64	1	64	C 3		+0
Amplitude	Level	Hold	Attack	Decay1	Decay	2	Release			
Element LFO		+0	+0	+0	+(C	+0			
Element	Time/Ve	el S	egment	PEG Dept	h	Dept	th/VeI	Curve		
EQ	+	0	All	+20	C		+0	2		
	1 2									

The full names of the available parameters are shown in the chart below, as they appear in the display.

		Hold	Attack	Decay1	Decay2	Release
Т	ime	Hold Time	Attack Time	Decay1 Time	Decay2 Time	Release Time
L	evel	Hold Level	Attack Level	Decay1 Level	Decay2 Level	Release Level

Settings: Time: 0 – 127 Level: -128 - +127 Pitch EG Filter

All Element Osc Balance

Туре Filter EG Scale Amplitude

Level / Pan Amp EG Scale **Element LFO** Element EQ

ference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	al Part (FM-X) Com	mon/Audio
Time/Key (PEG	i Time Key Follow S	ensitivity)			Normal Part (AWM2) Ed
			osition or octave range) a	affect the Pitch EG	Common
	Key (next parameter)	is used as the basic p	itch for this parameter.		Part Settings
Settings: -64 - +63	and the second				General
			ed while low notes result in a eed while low notes result in a		Pitch
-	EG transition speed does no			a night speed.	
••••••••		n onango, roga alooo or al			Zone Settings
	G Time Key Follow	-	••		Zone Transmit
		, .	elocity, or to the strength	2	Effect
	the Center Key note is	played, the PEG beha	aves according to its actu	ual settings.	Routing
Settings: C-2 – G8					Ins A
Time/Vel (PEG	Time Velocity Sens	itivitv)			Ins B
	Time Velocity Sens	• •			EQ
• ·	•		ers. Select the Segment, a	and then set its	Arpeggio
"Time/Vel" param		·	0		Common
Settings: Time/Vel:	-64 - +63				
	-		speed while low Velocities res		Individual
-			n speed while low Velocities re	esult in a fast speed.	Advanced
	G transition speed does no				Motion Seq
	Attack, Atk+Dcy (Attack+D ime/Vel parameter affects A		ack+Release), All		Common
	Time/Vel Value affects Atta				Lane
-	ime/Vel parameter affects D				Mod / Control
Atk+Rls:	Time/Vel Value affects Atta	ck/Release Time.			Part LFO
All: Time/	Vel affects all PEG Time pa	rameters.			Control Assign
DEC Donth					Ũ
PEG Depth	itab ranga far Ditab FC				Receive SW
Settings: -64 – +63	itch range for Pitch EG				Element
Settings. -04 - +03					Osc / Tune
Depth/Vel (PEC	Depth Velocity Se	nsitivity)			Pitch EG
Curve (PEG De	pth Velocity Sensit	ivity Curve)			Filter
			o the Velocity (strength) v		Туре
			om five different preset v		Filter EG
			ity affects the Pitch EG E d the horizontal axis indic		Scale
Settings: Depth/Vel		ales i ilen Change and		ales velocity.	Amplitude
•		use the pitch range to expa	and and low Velocities cause i	t to contract.	Level / Pan
	-		tract and low Velocities cause		
0: The pit	ch envelope does not chan	ge, regardless of the Veloc	ity.		Amp EG
Settings: Curve: 0 -	- 4				Scale
0	1	2	3	4	Element LFO
					Element EQ
					All Element
					Osc

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

Balance

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.

Operation [PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Filter] \rightarrow [Type]



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.

Nor	mai	Part (AWM2) Edit
Co	omn	hon
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	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	l Ele	ement
	05	SC
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part No	rmal Part (FM-X)	ommon/Audio
HPF	Gi	ain Resonance	Frequencies that are "passe	d" by the filter	Normal Part (AWM2) Edit Common Part Settings General Pitch
			Frequency		Zone Settings
		Cutoff Frequer	су		Zone Transmit
When this LPF6+HF When this	IPF12: A combination of a -1 Filter Type is selected, HPF PF12: A combination of a -6 Filter Type is selected, HPF A dynamic -24 dB/oct High-	Cutoff and HPF Key Follow dB/oct Low-Pass Filter and Cutoff and HPF Key Follow	Sensitivity can be set a -12 dB/oct High-Pass F Sensitivity can be set.	ilter connected in serial.	Effect Routing Ins A Ins B
	ed Resonance effect.			ter can produce a	EQ
		Gain	Esonance	st are "paceod"	Arpeggio Common Individual
			a are passed	Advanced	
			Frequency		Motion Seq
HPF12.	12 dB/oct dynamic High-Pas	s Filter			Common Lane
					Mod / Control
BPF	Gain	Frequencies that a	re "passed" by the filter		Part LFO Control Assign Receive SW
			>		Osc / Tune
		Center Frequency	Frequency		Pitch EG
BPE12D	The combination of a -12 dE	R/oct HPE and LPE with a c	haracteristic digital sound		Filter
	Gain	Resonand	Frequency		Type Filter EG Scale Amplitude Level / Pan Amp EG
		uencies that are "passed" by			Scale
BPFw: A	-12 dB/oct BPF that combine	es HPF and LPF filters to al	low wider bandwidth setti	ngs.	Element LFO
	Gain	I	1		Element EQ All Element
		14/i dkh	\square		All Element Osc
		Width —			Balance
	Frequ	uencies that are "passed" by	Frequency the filter		
BPF6: Th	ne combination of a -6 dB/oct				
	Gain	Resonanc	e		



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

BEF

Frequencies.



Normal Part (AWM2) Edit

Part Settings General

Common



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.

All Element

Osc

Balance

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.

INOI	mai	Part (AWW2) Edit				
Co	omn	hon				
	Pa	rt Settings				
		General				
		Pitch				
		Zone Settings				
		Zone Transmit				
	Eff	fect				
		Routing				
		Ins A				
		Ins B				
		EQ				
	Ar	peggio				
		Common				
		Individual				
		Advanced				
	Мо	Motion Seq				
		Common				
		Lane				
	Мо	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	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

■ 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.

Co	omm	ion						
	Pa	rt Settings						
		General						
		Pitch						
		Zone Settings						
		Zone Transmit						
	Eff	ect						
		Routing						
		Ins A						
		Ins B						
		EQ						
	Ar	peggio						
		Common						
		Individual						
		Advanced						
	Motion Seq							
		Common						
		Lane						
	Мс	od / Control						
		Part LFO						
		Control Assign						
		Receive SW						
Ele	eme	nt						
	Os	c / Tune						
	Pit	ch EG						
	Fil	ter						
		Туре						
		Filter EG						
		Scale						
	An	nplitude						
		Level / Pan						
		Amp EG						
		Scale						
	Ele	ement LFO						
	Ele	ement EQ						
All	l 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

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.

 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Filter] \rightarrow [Filter EG]$



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
Ī	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				
Common				
Part Settings				
General				
		Pitch		
		Zone Settings		
	Zone Transmit			
	Effect			
	Routing			
	Ins A			
		Ins B		
	EQ			
	Ar	peggio		
		Common		
		Individual		
		Advanced		
	Mo	otion Seq		
		Common		
Lane				
	Mod / Control			
	Part LFO			
		Control Assign		
_		Receive SW		
El	eme	ent		
	09	sc / Tune		
	Pi	tch EG		
	Fil	ter		
		Туре		
		Filter EG		
		Scale		
	Ar	nplitude		
		Level / Pan		
		Amp EG		
		Scale		
		ement LFO		
_		ement EQ		
AI		ement		
	05	SC		
	Balance			

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Commo	on/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.	
Settings: Time/Vel: -64 - +63	General
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.	Zone Settings
0: The pitch transition speed does not change, regardless of the Velocity.	Zone Transmit
Settings: Segment: Attack, Atk+Dcy (Attack+Decay), Decay, Atk+RIs (Attack+Release), All	Effect
Attack: Time/Vel parameter affects Attack time.	Routing
Atk+Dcy: Time/Vel Value affects Attack/Decay1 time. Decay: Time/Vel parameter affects Decay Time.	0
Atk+Ris: Time/Vel Value affects Attack/Release time.	Ins A
All: Time/Vel affects all FEG Time parameters.	Ins B
	EQ
FEG Depth	Arpeggio
Determines the Cutoff Frequency range for Filter EG.	Common
Settings: -64 - +63	Individual
Depth/Vel (FEG Depth Velocity Sensitivity)	Advanced
Curve (FEG Depth Velocity Sensitivity Curve)	Motion Seq
Determines how the range of the Cutoff Frequency responds to Velocity (strength) with which you play	Common
notes on the keyboard. The Curve parameter lets you select from five different preset velocity curves	Lane
(graphically indicated in the display) that determine how velocity affects the Filter EG Depth. In the	Mod / Control
illustrations below, the vertical axis indicates Cutoff Frequency Change and the horizontal axis indicates Velocity.	
Settings: Depth/Vel: -64 – +63	Part LFO
Settings: Curve: 0 – 4	Control Assign
	Receive SW
	Element
	Osc / Tune
	Pitch EG
NOTE For details on FEG, see the Synthesizer Parameter Manual PDF document.	Filter
	Туре

Filter EG Scale Amplitude

All Element Osc Balance

Level / Pan Amp EG Scale Element LFO Element EQ

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Common	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] \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					
Co	Common				
	Part Settings				
	General				
	Pitch				
	Zone Settings				
	Zone Transmit				
	Effect				
		Routing			
	Ins A				
		Ins B			
		EQ			
	Ar	peggio			
		Common			
		Individual			
		Advanced			
	Мо	otion Seq			
		Common			
	Lane				
	Мо	od / Control			
		Part LFO			
	Control Assign				
		Receive SW			
El	eme	ent			
	Os	sc / Tune			
	Pit	tch EG			
	Fil	ter			
		Туре			
		Filter EG			
		Scale			
	An	nplitude			
		Level / Pan			
	Amp EG				
		Scale			
	Element LFO				
	Ele	ement EQ			
AI	l Ele	ement			
	Osc				
	Balance				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part N	ormal 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.

Operation [PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Amplitude] \rightarrow [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





- 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



Level Velocity Sensitivity Offset = 96



		·			
Common					
	Part Settings				
		General			
		Pitch			
		Zone Settings			
		Zone Transmit			
	Effect				
	Routing				
	Ins A				
		Ins B			
		EQ			
	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	ch EG			
	Fil	ter			
		Туре			
		Filter EG			
		Scale			
	An	nplitude			
		Level / Pan			
		Amp EG			
		Scale			
	Ele	Element LFO			
	Ele	ement EQ			
AI	l Ele	ement			
	Os	SC			
	Ba	lance			
Reference	Performance	Edit	Search	Utility	Live Set
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		Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Co	mmon/Audio
Settings: Curve: 0 -	- 4		_		Normal Part (AWM2) Edit
0	1	2	3	4	Common
					Part Settings
					General
Don (Element D	Don)				Pitch
Pan (Element F	-an)				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.

Co	omm	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Eff	fect
		Routing
		Ins A
		Ins B
		EQ
	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
	Os	6C
	Ba	lance

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

Amp EG (Amplitude EG)

Operation

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.

 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Amplitude] \rightarrow [Amp EG]$



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.

	D		
Normal	Part	AVVIVIZ)	Ean

Nor	mal	Part (AWM2) Edit
Co	omn	non
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	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	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
_		ement EQ
AI		ement
	05	
	Ba	llance

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

		. ,	
Co	omn		
	Pa	rt Settings	
		General	
		Pitch	
		Zone Settings	
		Zone Transmit	
	Effect		
		Routing	
		Ins A	
		Ins B	
		EQ	
	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	
Al	l Ele	ement	
	Os	iC	
	Balance		

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	I 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

	mai	
Co	mn	non
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
-	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	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
	Pit	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	Ele	ement LFO
	Ele	ement EQ
All	Ele	ement
	05	SC
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Nor	mal Part (FM-X) Commo	n/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	omn	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	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
Al	I Ele	ement
	09	SC
	Ba	alance

		· · · · · · · · · · · · · · · · · · ·	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Nor	mal Part (FM-X) Co	ommon/Audio
•	O Pitch Modulation I amount (depth) by which		aries (modulates) the pi	itch of the sound.	Normal Part (AWM2) E Common
Filter Mod (LF	O Filter Modulation I amount (depth) by which	• •	aries (modulates) the Fi	lter Cutoff frequency.	Part Settings General Pitch Zone Settings
Determines the a	D Amplitude Modula amount (depth) by which	• •	aries (modulates) the an	nplitude or volume of	Zone Transmit Effect
he sound. Settings: 0 – 127					Routing Ins A Ins B EQ
Element EQ					Arpeggio
	t EQ display you can m PERFORMANCE] → [EDIT		-	t EQ]	Common Individual Advanced
			-	t EQ]	Individual
Operation [F			ment selection → [Elemen	t EQ]	Individual Advanced
Operation [F	PERFORMANCE] → [EDIT Edit - Part1 - Element1] → Part selection → Ele	ment selection → [Elemen		Individual Advanced Motion Seq
Operation [F	PERFORMANCE] → [EDIT Edit - Part1 - Element1 +24] → Part selection → Ele	ment selection → [Elemen		Individual Advanced Motion Seq Common
Operation [F	PERFORMANCE] → [EDIT Edit - Part1 - Element1] → Part selection → Ele	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane
Operation [F	PERFORMANCE] \rightarrow [EDIT] Edit - Part1 - Element1 +24 +12 0 -12] → Part selection → Ele	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control
Operation [F	PERFORMANCE] \rightarrow [EDIT] Edit - Part1 - Element1] → Part selection → Ele	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO
Operation [F	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 +24 +12 0 -12 -24] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assign
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Operation [F Osc / Tune Pitch EG	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 $\begin{array}{c} +24 \\ +12 \\ 0 \\ -12 \\ -24 \\ 20 \end{array}$ EQ Type] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element
Operation (F Osc / Tune Pitch EG Filter	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 $\begin{array}{c} +24 \\ +12 \\ 0 \\ -12 \\ -24 \\ 20 \end{array}$ EQ Type] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune
Operation (F Osc / Tune Pitch EG Filter Amplitude Element	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 $\begin{array}{c} +24 \\ +12 \\ 0 \\ -12 \\ -24 \\ 20 \end{array}$ EQ Type] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG
Operation (F Osc / Tune Pitch EG Filter Amplitude	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 $\begin{array}{c} +24 \\ +12 \\ 0 \\ -12 \\ -24 \\ 20 \end{array}$ EQ Type] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter
Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 $\begin{array}{c} +24 \\ +12 \\ 0 \\ -12 \\ -24 \\ 20 \end{array}$ EQ Type] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter Type
Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 $\begin{array}{c} +24 \\ +12 \\ 0 \\ -12 \\ -24 \\ 20 \end{array}$ EQ Type] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter Type Filter EG
Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO	PERFORMANCE] → [EDIT] Edit - Part1 - Element1 $\begin{array}{c} +24 \\ +12 \\ 0 \\ -12 \\ -24 \\ 20 \end{array}$ EQ Type] → Part selection → Ele FX	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter Type Filter EG Scale
Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO	$PERFORMANCE] \rightarrow [EDIT]$ $Edit - Part1 - Element1$ $+24$ $+12$ 0 -12 -24 20 $EQ Type$ $Boost6$] → Part selection → Ele FX	ment selection → [Elemen		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
Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO Element	$PERFORMANCE] \rightarrow [EDIT]$ $Edit - Part1 - Element1$ $+24$ $+12$ 0 -12 -24 20 $EQ Type$ $Boost6$] → Part selection → Ele	ment selection → [Elemen		Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assig Receive SW Element Osc / Tune Pitch EG Filter Filter EG Scale Amplitude Level / Pan Amp EG
Operation (F Osc / Tune Pitch EG Filter Amplitude Element LFO Element EQ	$PERFORMANCE] \rightarrow [EDIT]$ $Edit - Part1 - Element1$ $+24$ $+12$ 0 -12 -24 20 $EQ Type$ $Boost6$] → Part selection → Ele	ment selection → [Elemen		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

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.

Osc

Balance

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

Normal Part (AWM2) Edit

Co	omn	
	Pa	rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Eff	fect
		Routing
		Ins A
		Ins B
		EQ
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Mo	od / Control
		Part LFO
		Control Assign
		Receive SW
El	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	l Ele	ement
	05	5C
	Ba	lance

Common Part Settings: Common Part LFO Control Assign Receive SW Element Part LFO Control Assign Part	erence Per	rformance	Edit	Search	Utility	Live Set
Common Part Settings: Common Part LFO Control Assign Receive SW Element Part LFO Control Assign Part			Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Comr	mon/Audio
Part Settings Part S	When "EQ Type" i	is set to "P.EC	2"			Normal Part (AWM2) Ed
Image: 10,7 - 10,3 Image: 10,7 - 10,3 Image: 10,7 - 10,3 - 10,0 -		(
General Pitch Settings: 120B - 120B Freq Settings: 120B - 120B Freq Freq Settings: 120B - 120B Freq Fre				- 07 109		Part Settings
Zone Settings Zone Transmit Settings: 132/Hz - 12.0kHz Effect Routing Ins A Ins B EQ Arpeggio Common Individual Advanced Motion Seq Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO Control Assign Receives W Effect Common Lane Mod / Control Part LFO Control Assign Receives W Effect Effect Routing Ins A Ins B EQ Arpeggio Common Lane Mod / Control Part LFO Control Assign Receives W Effect Filter Type Filter EG Scale Amplitude Level / Pan				3: 0.7 - 10.3		General
Zone Settings Zone Transmit Freq Settings: 12dB + 12dB Freq Settings: 12dB + 12dB Freq Settings: 12dB + 12dB Settings: 12dB + 12dB + 12dB Settings: 12dB + 12dB + 12dB Settin				Frequency		Pitch
Settings: 12dB - +12dB Freq Settings: 139.7Hz - 12.9kHz						Zone Settings
Freq Settings: 139.7Hz - 12.9kHz Filed Bothing Ins B EQ Common Individual Advanced Motion Seq Common Individual Advanced Motor Seq Common Individual Advanced Motor Seq Common Individual Advanced Motor Seq Control Assign Receive SW Filter Ose / Tune Pitch EG Filter Determines the level gain of the frequency set in "EQ Freq." Setting: : 12:8 - 12:8* Filter EG Scale Amplitude Scale Amplitude Level / Pan						Zone Transmit
Botting: 130.111 111 1111 111 1111 <td></td> <td></td> <td>V I</td> <td></td> <td></td> <td>Effect</td>			V I			Effect
Image: Section 2				′Hz – 12.9kHz		Routing
Our / 100 c /						Ins A
Out / +24 Arpeggio Filter Filter Filter Filter Filter Filter Pitch EG Filter Filter Filter Filter Filter Pitch EG Filter Filter Filter Filter Osc / Tune Part LFO Control Assign Receive SW Element Osc / Tune Pitch EG Filter Osc / Tune Pitch EG Scale Filter EG Scale Settings: 1:0:7Hz - 12:9kHz Determines the frequency to be attenuated/boosted. Everl / Pan Settings: 1:3:7Hz - 12:9kHz	🔥 🛍 Edit - Pa	art1 - Element1	FX	IIIIII •<>→ J 130	III O	Ins B
Tune +12 -12	Ored	+24				EQ
Pitch EG -12 -2						Arpeggio
-24 20 50 100 200 500 1k 2k 5k 10k 20k Filter FQ Type FQ Sain FQ Type FQ Sain Advanced Motion Seq Amplitude FQ Type FQ Sain FQ Freq Common Lane Mod / Control Florenet 1.02kHz FQ Q 0.7 8 All Mute Solo Element 0.7 8 All Mute Solo Part LFO Common 1 2 3 4 5 6 7 8 All Mute Solo EQ Gain (Element EQ Gain) Determines the level gain of the frequency set in "EQ Freq." Solo Filter Pitch EG Filter Settings: :12dB - +12dB EQ Freq (Element EQ Frequency) Scale Amplitude Scale Amplitude Determines the frequency to be attenuated/boosted. Settings: :139.7Hz - 12.9kHz Level / Pan Level / Pan						
Advanced Filter Anplitude Element EQ 0,7 EQ 0,7 8 All Mute Solo Common 1 2 3 4 5 6 7 8 All Mute Solo Osc / Tune Pitch EQ Filter Osc / Tune Pitch EQ Filter Type Filter EQ Scale Amplitude Scale Any Diftude Scale Any Diftude Level / Pant	Pitch EG	24				Individual
Amplitude P.EQ +0.00dB Common Lane Lane Mod / Control Part LFO EQ Q 0.7 8 All Mute Solo Element 0.7 8 All Mute Solo Part LFO Common 1 2 3 4 5 6 7 8 All Mute Solo Element 0.7 8 All Mute Solo Determines the level gain of the frequency set in "EQ Freq." Solo Solo Filter Osc / Tune Pitch EG Filter Type Filter EG Scale Filter EG Scale Scale Amplitude Evel / Pant Determines the frequency to be attenuated/boosted. Settings: 139.7Hz - 12.9kHz Level / Pant Level / Pant		-24 20	50 100 200 500	1k 2k 5k 10k	20k	Advanced
Amplitude FP,EQ +0.00dB Image: Common Lane Lane Mod / Control Part LFO Image: Common 1.02kHz Solo Determines the level gain of the frequency set in "EQ Freq." Scale Filter EG Scale Image: Statings: 120B - +12dB Amplitude Determines the frequency to be attenuated/boosted. Amplitude Settings: 139.7Hz - 12.9kHz Level / Pant	Filter	EQ Type	EQ Gain			Motion Seq
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Element EQ Common 1 2 3 4 5 6 7 8 All Mute Solo Control Assign Receive SW Element 0sc / Tune Pitch EG Filter Type Filter EG Scale EQ Freq (Element EQ Frequency) Determines the frequency to be attenuated/boosted. Settings: 139.7Hz - 12.9kHz			1.02kHz			
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Common 1 2 3 4 5 6 7 8 All Mute Solo EQ Gain (Element EQ Gain) Determines the level gain of the frequency set in "EQ Freq." Filter Filter Settings: -12dB - +12dB EQ Freq (Element EQ Frequency) Type Filter EG Scale Determines the frequency to be attenuated/boosted. Settings: 139.7Hz - 12.9kHz Level / Pan Level / Pan			0.7			
Common 2 3 4 5 6 7 8 All Mute solo Pitch EG EQ Gain (Element EQ Gain) Determines the level gain of the frequency set in "EQ Freq." Filter Type Settings: -12dB - +12dB Filter EG Scale Scale EQ Freq (Element EQ Frequency) Determines the frequency to be attenuated/boosted. Amplitude Settings: 139.7Hz - 12.9kHz Level / Pan		The second s				
EQ Gain (Element EQ Gain)FilterDetermines the level gain of the frequency set in "EQ Freq."TypeSettings: -12dB - +12dBFilter EGEQ Freq (Element EQ Frequency)ScaleDetermines the frequency to be attenuated/boosted.AmplitudeSettings: 139.7Hz - 12.9kHzLevel / Pan	Common	2 3 0			ite Solo	
EC Gain (Element EC Gain) Determines the level gain of the frequency set in "EQ Freq." Settings: -12dB - +12dB EQ Freq (Element EQ Frequency) Determines the frequency to be attenuated/boosted. Settings: 139.7Hz - 12.9kHz						
Settings: -12dB - +12dB Filter EG EQ Freq (Element EQ Frequency) Scale Determines the frequency to be attenuated/boosted. Amplitude Settings: 139.7Hz - 12.9kHz Level / Pan	•	•	the "EO Eroa"			
EQ Freq (Element EQ Frequency) Scale Determines the frequency to be attenuated/boosted. Amplitude Settings: 139.7Hz - 12.9kHz Level / Pan			Jency set in "EQ Freq.			
EQ Freq (Element EQ Frequency) Amplitude Determines the frequency to be attenuated/boosted. Level / Pan Settings: 139.7Hz – 12.9kHz Level / Pan		3				
Settings: 139.7Hz – 12.9kHz Level / Pan						
			luated/boosted.			
	Settings: 139.7Hz - 12.9	ЭkHz				Amp EG

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

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

Element All (All Element)

Osc (Oscillator)

From the Oscillator display you can set Oscillator-related parameters for the eight Elements.

Operation

ion [PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow [All] \rightarrow [Osc]

Osc								
_	SW	XA Control 🔻	Group▼	Waveform 🛙	Vel	ocity Limit	Note	Limit
alance	1	Normal	1	Moving Harp St	1	127	C -2	G 8
_	2	Normal	1	Grain3 St	1	127	C -2	G 8
	3	Normal	1	Vocal Res	_ 1	127	C -2	G 8
	4	Normal	1	Neo Seq Em All	1	127	C -2	G 8
	5	Normal	1	JP Short Seq L	_ 1	127	C -2	G 8
	6	Normal	1	JP Short Seq L	1	127	C -2	G 8
	7	Normal	1	JP Short Seq L	_ 1	127	C -2	Gε
	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

		- a (
Co	omn Pa	non Irt Settings
	ra	General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	fect
		Routing
		Ins A
		Ins B
		EQ
	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
	Pi	tch EG
	Fil	ter
		Туре
		Filter EG
		Scale
	Ar	nplitude
		Level / Pan
		Amp EG
		Scale
	El	ement LFO
	El	ement EQ
AI	I Ele	ement
	09	6C
	Ba	lance

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	al 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

From the Balance display you can set parameters related to Level, Pitch, and Pan for the eight Elements.

Operation [PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow [All] \rightarrow [Balance]

.	上 Edit	t - Part1 - All Elen	nent	FX	🛄 🛶 🚽 140	≡ ¢
Osc						
	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	110
	7	+0	+0	106	С	127
	8	+0	+0	106	С	113
Common		2 3	4 5	6 7	8 All	

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	mm	ion
		rt Settings
		General
		Pitch
		Zone Settings
		Zone Transmit
	Ef	ect
		Routing
		Ins A
		Ins B
		EQ
	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	ich EG
	Fil	ter
		Туре
		Filter EG
		Scale
	An	nplitude
		Level / Pan
		Amp EG
		Scale
		ement LFO
	_	ement EQ
All		ement
	Ва	lance

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

 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part \ selection \rightarrow ELEMENT/OPERATOR \ [COMMON] \rightarrow [Part \ Settings] \rightarrow [General]$

A	🛍 Edit	- Part6 - Comn	non	E	x IIII ~	- J 140	¢
Part Settings	General	Part Category Ma Drum/Per		ory Sub 🔻 Pa UMS	rt Name Power	Standard Ki	ர t 1
P.(Zone	Volume	Pan	Dry Level	VarSend	RevSend	Part Output
Effect	Settings	79	С	127	0	16	MainL&R
Arpeggio	Zone Transmit	Note Shift	Detune	Pitch Bend↓	Pitch Bend ↑		
Motion		+0	+0.0Hz	-2	+2		
Seq		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
Common	BD	SD HH Clo	ose HH Pedal HH	Open Low Tom	Hi Tom Crash	Dru	іт Кеу

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

Drum Part Edit Common Part Settings General **Zone Settings Zone Transmit** Effect Routing Ins A Ins B EQ Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control **Control Assign Receive SW** Key Osc / Tune Filter Level / Pan **Element EQ**

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Nor	mal Part (FM-X) Com	nmon/Audio
Var Send (Varia	ation Send)		•		Drum Part Edit
	vel of the selected Part t MainL&R" or "Drum."	hat is sent to the Variati	on effect. This is avail	able only when "Part	Common Part Settings
Settings: 0 – 127					General
Rev Send (Rev	erb Send)				Zone Settings
	vel of the selected Part	that is sent to the Reve	rb effect. This is availa	able only when "Part	Zone Transmit
Output" is set to " Settings: 0 – 127	MainL&R" or "Drum."				Effect
-					Routing
• •	art Output Select)	with a state of David			Ins A
	audio output is used fo AsgnL&R, USB1&2USB28		- 30 Off Drum		Ins B
-	Contraction of the store of the				EQ
	R: Outputs in stereo (two cha				Arpeggio
	USB29&30: Outputs in sto			terminal.	Common
-	Outputs in mono (one channe Outputs in mono (one channe				Individual
-	30: Outputs in mono (Channe				Advanced
	udio signal for the Part is out		-		Motion Seq
Drum: "D	rum Key Out" is displayed to	determine the specific out	out for each Drum Key.		Common
Note Shift					Lane
Determines the p	itch (key transpose) sett	ing for each Part in sen	nitones.		Mod / Control
Settings: -24 - +0 -	+24				Control Assign
Detune					Receive SW
Determines the p	itch settings of the selec	ted Part in 0.1 Hz incre	ements.		Кеу
Settings: -12.8Hz -	+0.0Hz - +12.7Hz				Osc / Tune
Pitch Bend かん	↓ (Pitch Bend Range	Upper/Lower)			Filter
	aximum Pitch Bend Rar	•• /			Level / Pan
Settings: -48 - +0 -		-			Element EQ
Determines the m	aximum Pitch Bend Rar	•• /			

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

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	n/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 63).

Zone Transmit

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 65).

Drum Part Edit

Effect

Part Settings

General

Routing

Individual

Advanced

Common

Motion Seq

Lane

Osc / Tune Filter

Level / Pan Element EQ

Key

Mod / Control

Control Assign

Receive SW

Ins A Ins B

EQ

Arpeggio Common

Zone Settings

Zone Transmit

Common

Reference	Performance	Edit	Search	n Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Effect					— Drum Part Edit
					Common
Pouting					Part Settings
Routing					General
	-				Zone Settings
		T] \rightarrow Part selection \rightarrow ELEM	ENT/OPERATOR	$[\text{COMMON}] \rightarrow [\text{Effect}] \rightarrow$	Zone Transmit
	[Routing]				Effect
Drum Key (Connection Switch	Insertion FX Switch			Routing
					Ins A
m t	上 Edit - Pari 6 - Common	FX	J 1	140 📖 🔅	Ins B
Part				KeyRev RevSend	EQ
Settings R	Routing Drum Key	A ON			Arpeggio
	со	Category Type		60 16	Common
Effect	Ins A Keyboard	Misc VCM EC	EQ 501	KeyVar VarSend	Individual
	Select		lat	127 0	Advanced
Arpeggio	Ins B Connect 3-ban	nd Ins Connect			Motion Seq
	Thru EQ			Follower	Common
Motion Seq	EQ				Lane
		B ON Modulator	Off 7	Part Output	Mod / Control
Mod / Control		Category Type		MainL&R	Control Assign
		Tech Ring Mo	lodulator ▼		Receive SW
			asic		Key
					Osc / Tune
Common					Filter
Commen	BD SD HH Close HH	IH Pedal HH Open Low Tom Hi To	Tom Crash	Drum Key	Level / Pan
	Insertic	on FX Switch			Element EQ

Drum Key Connection Switch

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 67) 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. **Settings:** Parallel, Ins $A \rightarrow B$, Ins $B \rightarrow A$

Reference	Performance	Edit		Sear	ch	Uti	ity		Live Set
		Normal Part (AWM2)	l	Drum Part		Normal Part (FM-X)		Common/Audio	

RevSend (Reverb Send) VarSend (Variation Send)

Determines the Send level of the signal sent from Insertion Effect A/B (or the bypassed signal) to the Reverb/Variation effect. This is active only when the Part Output/Drum Key Output is set to "MainL&R."

Settings: 0 - 127

Part Output (Part Output Select)

Determines the specific output for the audio signal.
Settings: MainL&R, AsgnL&R, USB1&2...USB29&30, AsgnL, AsgnR, USB1 – 30, Off, Drum MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks. AsgnL&R: Outputs in stereo (two channels) to the ASSIGNABLE OUTPUT [L]/[R] jacks. USB1&2...USB29&30: Outputs in stereo (Channels 1&2 – 29&30) to the [USB TO HOST] terminal. AsgnL: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [L] jack. AsgnR: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [L] jack. USB1 – 30: Outputs in mono (Channels 1 – 30) to the [USB TO HOST] terminal. Off: No audio signal for the Part is output. Drum: "Drum Key Out" is displayed to determine the specific output for each Drum Key.

Envelope Follower

Calls up the Envelope Follower Setting display. Refer to the Routing display (page 68) for Normal Parts (AWM2).



InsRev (Insertion Reverb Send) InsVar (Insertion Variation Send)

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

Drum Part Edit

Jiu									
Co	omn	non							
	Part Settings								
	General								
	Zone Settings								
		Zone Transmit							
	Ef	fect							
		Routing							
		Ins A							
		Ins B							
		EQ							
	Ar	peggio							
	Common								
		Individual							
		Advanced							
	Mo	otion Seq							
		Common							
		Lane							
	Мо	od / Control							
		Control Assign							
		Receive SW							
Ke	y								
	05	sc / Tune							
	Fil	ter							
	Le	vel / Pan							
	El	ement EQ							

Reference	Performance	Edit	Sear	ch		Jtility		Live Set
		Normal Part (AWM2)	Drum Part		Normal Part (FM-	X)	Common/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, AsgnL&R, USB1&2...USB29&30, AsgnL, AsgnR, USB1 – 30

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks.

AsgnL&R: Outputs in stereo (two channels) to the ASSIGNABLE OUTPUT [L]/[R] jacks.

USB1&2...USB29&30: Outputs in stereo (Channels 1&2 – 29&30) to the [USB TO HOST] terminal.

AsgnL: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [L] jack.

AsgnR: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [R] jack. **USB1 – 30:** Outputs in mono (Channels 1 – 30) 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."

Drum Part Edit

Co	ommon								
	Part Settings								
		General							
		Zone Settings							
		Zone Transmit							
	Ef	fect							
	Routing								
		Ins A							
		Ins B							
		EQ							
	Arpeggio								
	Common								
		Individual							
		Advanced							
	Mo	otion Seq							
		Common							
		Lane							
	Mo	od / Control							
		Control Assign							
		Receive SW							
Ke	ey 🛛								
	Osc / Tune								
	Fil	ter							
	Le	vel / Pan							
	El	ement EQ							

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

Ins A (Insertion Effect A) Ins B (Insertion Effect B)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 69).

EQ (Part Equalizer)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 70).

Arpeggio

Common

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 73).

Individual

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 76).

Advanced

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 77), except for the additional parameter below.

Fixed SD/BD

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 Seq (Motion Sequencer)

Common

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 78).

Lane

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 81).

Mod/Control (Modulation/Control)

Control Assign

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 89), 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 92).

Drum Part Edit										
Co	Common									
	Part Settings									
		General								
		Zone Settings								
		Zone Transmit								
	Effect									
		Routing								
		Ins A								
		Ins B								
		EQ								
	Arpeggio									
		Common								
		Individual								
		Advanced								
	Mo	otion Seq								
		Common								
		Lane								
	Mo	od / Control								
		Control Assign								
		Receive SW								
Ke	₽y									
	Os	sc / Tune								
	Fil	ter								
	Le	vel / Pan								
	Ele	ement EQ								

erence	Performance	Edit		arch	Utility	Live Set
		Normal Part (AWM	2) Drum Par	t Normal Par	t (FM-X)	Common/Audio
Key Edit (K	(ev)					Drum Part Edit
	,					Common
						Part Settings
Osc/Tune (O	scillator/Tune)					General
rom the Oscillato	or/Tune display you car	n set Oscillator-relat	ed parameters f	or each Key of th	e Drum Part.	Zone Settings
						Zone Transmit
Operation [P	ERFORMANCE] → [EDIT	$] \rightarrow$ Part selection \rightarrow k	Key selection \rightarrow [C	Dsc/Tune]		Effect
	Drum Koy Switch					Routing
	Drum Key Switch					Ins A
n t	Edit - Part6 - Drum Key C	1 -	x 📖 🗠	J 140	0	Ins B
			b Category Name		0=	EQ
Osc / Tune	ON Preset	4826 Dr/Pc	Snare	Sd Funk St1-3		Arpeggio
	Assign Mode	Connect		Ŀ		Common
Filter			4	New Waveform		Individual
_	Single	ulti Thru				Advanced
Level / Pan	Tune Coarse Fin	ne Pitch/Vel				Motion Seq
7 Fail	+0	+0 +0				Common
Element EQ						Lane
						Mod / Control
					/board elect	Control Assign
	Rcv Note Off Group	KeyRev	KeyVar	Drum Key Out Drum		Receive SW
						Кеу
	ON (Off 127	127	MainL&R	C1 <mark>₀</mark> ≢	Osc / Tune
						Filter
Common	BD SD HH Close HH	Pedal HH Open Low Tom	Hi Tom Crash	Drum Key		Level / Pan
						Element EQ

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. **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)

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
New Waveform		"M/	" For details or	looding: ooo "I ood"	Drum Part Edit
(page 174).	m is loaded, the Edit Wa	n memory as "Waveform aveform parameter will b			Common Part Settings General
Coarse (Coarse Determines the pi Settings: -48 – +48	e Tune) tch of each Drum Key V	Vave in semitones.			Zone Settings Zone Transmit Effect
Fine (Fine Tune Determines the fir Settings: -64 – 63	•	f each Drum Key Wave.			Routing Ins A Ins B
Determines how t Settings: -64 – 63 Positive Negative	values: The harder you play) Drum key responds to y the keyboard, the more the y the keyboard, the more the	pitch rises.		EQ Arpeggio Common Individual Advanced Motion Seg
Rcv Note Off (F	Receive Note Off)	are received by each Dr	rum Key.		Common Lane Mod / Control
here cannot soun	Group to which the key d simultaneously. This s ds cannot physically be	is assigned. The Parts to etting helps to reproduc played simultaneously,	e the sounds o	f a real drum kit, in which	Control Assign Receive SW Key Osc / Tune Filter
	Key Reverb Send) Key Variation Send)				Level / Pan Element EQ

Determines the level of the Drum key sound (the bypassed signal) that is sent to Reverb/Variation effect.

This is not available depending on the settings of Drum Key Connection Switch or Part Output.

USB1&2...USB29&30: Outputs in stereo (Channels 1&2 - 29&30) to the [USB TO HOST] terminal.

Determines whether or not the Keyboard Select setting is active or not. When this is set to on, you can

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks. **AsgnL&R:** Outputs in stereo (two channels) to the ASSIGNABLE OUTPUT [L]/[R] jacks.

AsgnL: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [L] jack. **AsgnR:** Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [R] jack. **USB1 – 30:** Outputs in mono (Channels 1 – 30) to the [USB TO HOST] terminal.

This is not available depending on the setting of the Drum Key Connection Switch.

MONTAGE Reference Manual

Indicates the selected Drum key.

Settings: 0 - 127

Settings: Off, On

Settings: C0 - C6

Drum Key

Drum Key Out (Drum Key Output Select)

Keyboard Select (Keyboard Select Switch)

select Drum Keys by playing the notes on the keyboard.

Determines the specific output for the individual Drum Key.

Settings: MainL&R, AsgnL&R, USB1&2...USB29&30, AsgnL, AsgnR, USB1 - 30

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	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] \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

A							
Cc	Common						
	Part Settings						
		General					
		Zone Settings					
		Zone Transmit					
	Ef	fect					
		Routing					
		Ins A					
		Ins B					
		EQ					
	Ar	peggio					
		Common					
		Individual					
		Advanced					
	Мо	otion Seq					
		Common					
		Lane					
	Мо	od / Control					
		Control Assign					
		Receive SW					
Ke	y						
	05	sc / Tune					
	Fil	ter					
	Le	vel / Pan					
	Ele	ement EQ					

Reference	Performance	Edit	Se	earch	Utility		Live Set
		Normal Part (AWM	2) Drum Pa	art Norm	al Part (FM-X)	Common/Au	dio
Level/Pan						— Drum I — Comr	Part Edit non
From the Level/Pan d	lisplay you can make	e Level and Pan se	ettings for each	Drum Key.		Pa	art Settings
							General
Operation [PERF	ORMANCE] → [EDIT]	\rightarrow Part selection \rightarrow K	Key selection \rightarrow [Level/Pan]			Zone Settings
							Zone Transmit
n 🕇 Edit	: - Part6 - Drum Key C0	F	x IIII ~	J 140	≡≡ ¢	Ef	ifect
Osc /	K						Routing
Tune							Ins A
							Ins B
Filter							EQ
t see t					_	Α	rpeggio
Level / Pan	Time Atta	ack Decay1 Deca	ay2				Common
		0 0 4	17				Individual
Element EQ	Level	Decay1	_				Advanced
	Level					M	otion Seq
		127			Keyboard Select		Common
	Level Level/V	'el Pan	Alternate Pan	Random Pan	Drum Key		Lane
	71 +	29 C	С	0	C0	M	od / Control
					■ = = = = = = = = = = = = = = = = = = =		Control Assign
Common BD	SD HH Close HH P	edal HH Open Low Tom	Hi Tom Crash	Dr	um Key	Key	Receive SW

The full names of the available parameters are shown in the chart below, as they appear in the display.

	Attack	Decay1	Decay2
Time	Attack Time	Decay1 Time	Decay2 Time
Level	-	Decay1 Level	-

Settings: Time: 0 – 127, Hold (only for Decay2) Level: 0 – 127



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)

Osc / Tune

Filter
Level / Pan
Element EQ

Reference	Performance	Edit	Search	Utility	Live Set	
Alternate Pan Drum Part Edit						
Determines the a for each note you Settings: L64 – C –	ely left and right	Common Part Settings General				

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 114).

Dru	Drum Part Edit				
Co	omn	non			
	Pa	rt Settings			
		General			
		Zone Settings			
		Zone Transmit			
	Ef	fect			
	Routing				
		Ins A			
		Ins B			
		EQ			
	Ar	peggio			
		Common			
		Individual			
		Advanced			
	Мо	otion Seq			
		Common			
		Lane			
	Мо	od / Control			
		Control Assign			
		Receive SW			
Ke	y				
	Osc / Tune				
	Fil	ter			
	Le	vel / Pan			
	Element EQ				

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norm	nal 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.



 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Part Settings] \rightarrow [General]$

A	🛍 Edit	- Part1 - Com	non		FX IIIII	🔶 🚽 130	≡ ¢
Part Settings	General	Part Category M Keyboar		gory Sub ▼ Piano	Part Name	FM Ballad EP	[7]
Pitch /		Volume	Pan	Dry Level	VarSend	RevSend	Part Output
Filter	Algorithm	127	С	127	0	8	MainL&R
Effect	Zone Settings	Mono/Poly	Key Assign	KeyOnDly Synd	c Delay Length		
		Mono Poly	Single Multi	OFF	0		
Arpeggio	Zone Transmit	Arp Play Only	Random Pan	Alternate Pan	Scaling Pan		<u> </u>
Motion Seq		OFF	64	C	+0		
Mod /		Velocity Limit		Note Limit			Velocity Depth
Control		1 127		C -2	G 8	64	64
Common	1						

Most parameters are the same as parameters on the Element Common Edit display for Normal Parts (AWM2) (page 58) 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	non					
	Part 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					
	Ar	peggio					
		Common					
		Individual					
		Advanced					
	Mo	otion Seq					
		Common					
		Lane					
	Mo	od / Control					
		Part LFO					
		2nd LFO					
		Control Assign					
		Receive SW					
Oŗ	pera						
	Fo	rm / Freq					
	Level						

Reference	Performance	Edit	Search	Utility		Live Set		
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Au	dio		
• • •	KeyOnDly Sync (Key On Delay Tempo Sync Switch) Normal Part (FM-X) Edit Determines whether or not "Key On Delay Time Length" is synchronized to the tempo. Common							
Determines whe Settings: Off, On	ther or not "Key On Delay	y Time Length" is sync	hronized to the ter	npo.	Comr	Common		
Settings. On, On					Part Settings			
Delay Length	(Key On Delay Time I	_ength)				General		
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.						Algorithm		
						Zone Settings		
Settings: 0 - 127		011.				Zone Transmit		

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.



[PERFORMANCE] → [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Part Settings] \rightarrow [Algorithm]



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

Pitch / Filter

Pitch

PEG/Scale

Filter Type

Filter Scale

Filter EG

Routing Ins A

Common

Individual Advanced

Ins B

EQ

Arpeggio

Motion Seq Common

Lane Mod / Control Part LFO 2nd LFO

Control Assign

Receive SW

Form / Freq

Operator

Level

Effect

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	Part (FM-X) Common	n/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 63).

Zone Transmit

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 65).

Normal 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
	Ar	peggio
		Common
		Individual
		Advanced
	Мо	otion Seq
		Common
		Lane
	Мо	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) Commo	on/Audio

Pitch/Filter

Pitch

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 60), 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.



[PERFORMANCE] → [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Pitch/Filter] → [PEG/Scale]

A	🛍 Edit	- Part1	- Comm	on		FΣ			→ J 125	≡ ¢
Part Settings	Pitch									
Pitch / Filter	PEG / Scale									
Effect	Filter Type	Time		Attack	Decay1	Decay	2	Release	Center Key	Pitch/Key
	Filter			25	30	25	5	30	C 3	+100%
Arpeggio	EG	Level	Initial	Attack	Decay1	Decay	2	Release	Pitch/Vel	
Motion Seq	Filter Scale		+0	-20	+18	-1	5	+5	+0	
Mod /		PEG Dep	th 🔻	Depth/Vel			Time,	/Key	Random Pitch	
Control		8 oct 0						0	0	
Common	1	2	3	4	5	6	7	8		

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	Hold Level	Attack 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.

Zone Transmit

Zone Settings

Normal Part (FM-X) Edit

Part Settings

General Algorithm

Common

		Zone transmit
	Pit	ch / Filter
		Pitch
		PEG/Scale
		Filter Type
		Filter EG
		Filter Scale
	Eff	ect
_		Routing
		Ins A
		Ins B
		EQ
	Ar	peggio
		Common
		Individual
		Advanced
	Mc	Filter EG Filter Scale fect Routing Ins A Ins B EQ peggio Common Individual Advanced otion Seq Common Lane od / Control Part LFO 2nd LFO Control Assign Receive SW
		Common
		Lane
	Mc	od / Control
		Part LFO
		2nd LFO
		Control Assign
		Receive SW
Оре	era	tor

Form / Freq Level

^{0:} The PEG transition speed does not change, regardless of the played note.

ference	Performance	Edit	Sear	ch	Uti	lity		Live Set
		Normal Part (AWM2)	Drum Part	No	rmal Part (FM-X)		Common/Audio	
• •	h Key Follow Sensitiv	• ·	rval of adjacer	nt notes), assuming the	pitc		art (FM-X) Edit
of the Center Key Settings: -200% – +	y (below) as standard. ⊦0% – +200%				,		Part	Settings General
0%: All no	he normal setting): Adjacent r otes have the same pitch as th e values: The settings are rev	ne Center Key.	nitone apart.				A	Algorithm
Center Kev (Pit	tch Key Follow Sensi	tivity Center Kev)						one Transmit
	entral note or pitch for the		n pitch.				Pitch	n / Filter
Settings: C -2 – G8							P	Pitch
Pitch/Vel (Pitch	n Velocity Sensitivity)						Þ P	EG/Scale
•	the pitch responds to velo						► F	ilter Type
Settings: -64 – 63							► F	ilter EG
	values: The harder you play						► F	ilter Scale
-	e values: The harder you play ange in pitch.	the keyboard, the more the	ne pitch falls.				Effec	t
							F	louting
	(Random Pitch Depth	•					h	ns A
=	domly vary the pitch for e	each note played.					h	ns B
Settings: 0 – 127							E	Q
NOTE For details of	on PEG, see the Synthesizer	Parameter Manual PDF	document.				Arpe	ggio
							C	common
Filter Type							h	ndividual
							A	dvanced
Same as the Elen	nent Edit parameters for I	Normal Parts (AWM2)	(page 100).				Moti	on Seq
							C	common
Filter EG							L	.ane
							Mod	/ Control
Same as the Elen	nent Edit parameters for I	Normal Parts (AWM2)	(page 105).				P	art LFO
							2	nd LFO
Filter Scale							C	control Assign
							F	Receive SW
Same as the Elen	nent Edit parameters for I	Normal Parts (AWM2)	(page 107).				Operato	r
							Form	n / Freq
							Leve	1

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

Effect

Routing

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



 $[PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow ELEMENT/OPERATOR [COMMON] \rightarrow [Effect] \rightarrow [Routing]$

Insertion FX Switch



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 67) 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 19) 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 to the Reverb effect. **Settings:** 0 – 127

Normal Part (FM-X) Edit

Part Settings

Pitch / Filter

Pitch PEG/Scale

Effect

Filter Type Filter EG

Filter Scale

Routing

Ins A

Ins B

EQ

Arpeggio

Common

Individual

Advanced

Part LFO 2nd LFO

Control Assign

Receive SW

Form / Freq

Operator

Level

Motion Seq Common Lane Mod / Control

General Algorithm

Zone Settings

Zone Transmit

Common

Reference	Performance	Edit	Search		Utility		Live Set	
		Normal Part (AWM2)	Drum Part	Normal P	art (FM-X)	Common/Aud	io	
Var Send (Va	riation Send)					Normal	Part (FM-X) Edit	

Var Send (Variation Send) Determines the Send level of the signal sent from Insertion Effect A/B to the Variation effect. Settings: 0 – 127

Part Output (Part Output Select)

Determines the specific audio output.

Settings: MainL&R, AsgnL&R, USB Stereo, AsgnL, AsgnR, USB1 – 30, Off
MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks.
AsgnL&R: Outputs in stereo (two channels) to the ASSIGNABLE OUTPUT [L]/[R] jacks.
USB1&2...USB29&30: Outputs in stereo (Channels 1&2 – 29&30) to the [USB TO HOST] terminal.
AsgnL: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [L] jack.
AsgnR: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [R] jack.
USB1 – 30: Outputs in mono (Channels 1 – 30) 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 69).

EQ (Part Equalizer)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 70).

Arpeggio

Common

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 73).

Individual

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 76).

Advanced

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 77).

Motion Seq (Motion Sequencer)

Common

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 78).

Lane

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 81).

lorm	al Part (FM-X) Edit
Com	mon
F	Part Settings
	General
	Algorithm
	Zone Settings
	Zone Transmit
F	Pitch / Filter
	Pitch
	PEG/Scale
	Filter Type
	Filter EG
	Filter Scale
E	ffect
	Routing
	Ins A
	Ins B
	EQ
	rpeggio
	Common
	Individual
	Advanced
	lotion Seq
	Common
	Lane
Ν	lod / Control
	Part LFO
	2nd LFO
	Control Assign
	Receive SW
Ореі	rator
F	orm / Freq
L	.evel

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

Mod/Control (Modulation/Control)

Part LFO

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 85), 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] → [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Mod/Control] → [2nd LFO]



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

Normal Part (FM-X) Edit

Common

	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
-	Ar	peggio
-		Common
		Individual
		Advanced
-	Mo	otion Seq
-		Common
		Lane
	Mo	od / Control
-		Part LFO
		2nd LFO
		Control Assign
		Receive SW
Ор	era	itor
	Fo	orm / Freq

Level

ference		Performance	9	Edit			Sea	arch			Utili	ty		Live Set		
			N	ormal Part ((AWM2)	D	rum Par	t	Normal	Part (I	FM-X)		Common/Audio			
		(2nd LFO P i Int (depth) by			• •	-	~~ (m~	dulata	a) tha n	itab a	fthaar			art (FM-X) Edi		
Settings: 0 – 9		ini (depin) by	which the		wavelon	iii van	es (mot	Julate	s) the p		i the st	June	Commo			
-													Part	Settings		
-		tion (2nd L	-										(General		
Determines the volume of the		int (depth) by	which the	2nd LFO	wavefor	m vari	ies (mo	dulate	es) the a	ampliti	ude or		Algorithm			
Settings: 0 – 9													Z	one Settings		
	0												Z	Cone Transmit		
		2nd LFO Fi											Pitcl	n / Filter		
Determines the amount (depth) by which the 2nd LFO waveform varies (modulates) the Filter Cutoff												F	Pitch			
requency. Settings: 0 – 99	9												F	PEG/Scale		
Journys. 0 – 9:	0												F	Filter Type		
		Operator De											F	ilter EG		
		odulation O											F	ilter Scale		
Adjusts the ar Operator.	mount (a	depth) which	is determi	ned in the	"2nd LF	·O Pitc	ch Modi	ulatior	n Depth'	" for e	ach		Effe	ot		
Settings: 0 – 7													F	Routing		
-														ns A		
		tion Opera											1	ns B		
	•	de Modulati	-	•			مانينام	Madu	Jatian D) e ie tie "	604.00	مام	E	Q		
Operator.	nount (c	depth) which	is determin	neu în the	2NU LF	'U AM	ipillude	wodu	nation L	Jepin	ior ea	CII		eggio		
Settings: 0 – 7														Common		
-														ndividual		
	-													Advanced		
Control A	ssign													on Seq		
														Common		
Operation		ORMANCE] →		Part selection	on \rightarrow ELE	MENT	/OPERA	TOR [0	COMMO	N] →						
oporation	[Mod/C	Control] \rightarrow [Con	trol Assign]											.ane		
														/ Control		
	🛍 Edit	- Part1 - Comr	non		FX		₩ ↔	J 13	30		0			Part LFO		
Part	Part	Auto Display			Display Nan			[7]	Pag	ge				nd LFO		
Settings	LFO	Select	AsgnKnot	o 1		Assigr	า 1			1				Control Assign		
			Des	tination 3									F	Receive SW		
Pitch / Filter	2nd LFO			Dou Com	d		+						Operato	r		
		OP Lev	er	Rev Sen	a								Forn	n / Freq		
Effect	Control Assign	Source	Operator S	W 1	2	3	4	5	6		8		Leve	el l		
		AsgnKnob 1		ON	ON	ON	ON	ON	ON	ON	ON					
Arpeggio	Receive															
	SW	Curve Type		Polarity	R	latio	Р	aram 1								

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 89), except for the different setting values in the Destination parameter. For details on the setting value, see the Data List PDF document.

₽

User Curve

Also the following parameter is shown on this display.

D

Destination

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

D

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

A	🛍 Edit	- Part1 - (Commo	n		E	X		÷ J	90		0
Part Settings	Part LFO	Auto Di Select	splay Fil A	_{lter} AsgnKnob	1	Display	Name Assig	gned	[7]		Page 1	
Pitch / Filter	2nd LFO	Destination	1 Freq	•	Ŧ							
Effect	Control Assign	Source	•	Operator Rate		2	3	4	5	6		8
	Receive	AsgnKno	b 1	SW / Rate	+0	+0	+0	+0	+0	+0	+0	+0
Arpeggio	SW	Curve Type			Polar	ity	Ratio		Param	1		
Motion Seq		Standar			Uni	Bi	+	20		5		
Mod / Control		Destinati to Name		Edit User Curve	e						Del	₽ ete
Common	1	2	3	4	5	6	7	8				

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 92).

Normal Part (FM-X) Edit				
Co	omn	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		
	Ar	peggio		
		Common		
		Individual		
		Advanced		
	Мо	otion Seq		
		Common		
		Lane		
	Мо	od / Control		
		Part LFO		
		2nd LFO		
		Control Assign		
		Receive SW		
O	oera	tor		
	Fo	rm / Freq		
	Le	vel		

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



A	🛍 Edit	- Part1	- Operato	r1		Ē	X		- J	130		٥
Form / Freq												
Level										1 2 C	5 7 6 8	
		Time		Attack	Decay		Spectra	I *	Skirt		Resona	nce
				0	0		Res	s 1		0		0
		Level	Initial	Attack			Key On F	Reset			Pitch/	Vel
			+0	+0			o	N				+0
		Freq Moo	de Co	arse	Fine		Frequen	су	Detune		Pitch/I	Key
		Ratio	Fixed	16		0	440.1	19 Hz		+0		0
Common	1	2	3	4	5	6	7	8		м	ute	Solo

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

lorma	l Part (FM-X) Edit
Comn	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
Ar	peggio
	Common
	Individual
	Advanced
Mo	otion Seq
	Common
	Lane
Mo	od / Control
	Part LFO
	2nd LFO
	Control Assign
	Receive SW
Opera	itor
Fo	orm / Freq
Le	evel

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

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.

Normal Part (FM-X) Edit

orr	mal	Part (FM-X) Edit					
Co	mn	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					
	Ar	peggio					
		Common					
		Individual					
_		Advanced					
_	Mo	otion Seq					
		Common					
_		Lane					
_	Mo	od / Control					
		Part LFO					
		2nd LFO					
		Control Assign					
		Receive SW					
Op	era	tor					
	Fo	rm / Freq					
	Le	vel					



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."

Settings: -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	Performance	Edit		Se	earch	U	Jtility		Live Set
		Normal Part	(AWM2)	Drum Pa	art No	ormal Part (FM-)	X)	Common//	Audio
Coore (Coare								Norn	nal Part (FM-X) Ed
Coarse (Coarse Determines the p	e Tune) bitch of each Operator	r							. ,
	req Mode" is set to "Ratio"								nmon
-	req Mode" is set to "Fixed'							_	Part Settings
Sino (Sino Tun	- 1								General
Fine (Fine Tune Determines the fi	e) ine tuning for the pitch	h of each Oners	tor						Algorithm
	req Mode" is set to "Ratio"		lor.						Zone Settings
-	req Mode" is set to "Fixed"							_	Zone Transmit
								_	Pitch / Filter
Detune		" biabar a	1						Pitch
	Pitch of the Operator s parameter value is se			and "Fine]	Tune " the	Netune lets v(וור		PEG/Scale
	ower the pitch of each							b	Filter Type
enhance the spat	tial characteristics.	·	<u> </u>						Filter EG
Settings: -15 - +15	ŝ								Filter Scale
Pitch/Kev (Pitc	ch Key Follow Sen	sitivitv)						_	Effect
	sensitivity of the Key F	• •	degree de	epending	on their pa	osition or octa	ve	_	Routing
range). This is av	vailable only when "Fr				-				Ins A
Settings: 0 – 99									
-	11 Note and								Ins B
0: All note	es are the same pitch spe		ıd Fine.						Ins B EQ
0: All note	es are the same pitch spe cent notes are pitched one		nd Fine.					_	
0: All note			nd Fine.					-	EQ
0: All note 99: Adjac			nd Fine.					-	EQ Arpeggio
0: All note			nd Fine.					-	EQ Arpeggio Common Individual
0: All note 99: Adjac		e semitone apart.			tor.				EQ Arpeggio Common Individual Advanced
0: All note 99: Adjac	cent notes are pitched one	e semitone apart.		the Opera	.tor.				EQ Arpeggio Common Individual Advanced Motion Seq
0: All note 99: Adjac Level From the Level di	cent notes are pitched one	e semitone apart.	ettings for	·					EQ Arpeggio Common Individual Advanced Motion Seq Common
0: All note 99: Adjac Level From the Level di	cent notes are pitched one	e semitone apart.	ettings for	·					EQ Arpeggio Common Individual Advanced Motion Seq Common Lane
0: All note 99: Adjac Level From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED	e semitone apart. all the volume so DIT] → Part selection	ettings for	·	on → [Level]				EQ Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control
0: All note 99: Adjac Level From the Level di Operation [P	cent notes are pitched one	e semitone apart. all the volume so DIT] → Part selection	ettings for on → Opera	ator selection	on → [Level]				EQ Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO
0: All note 99: Adjac Level From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED	e semitone apart. all the volume so DIT] → Part selection	ettings for on → Opera	ator selection	on → [Level]				EQ Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO
0: All note 99: Adjac Level From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED	e semitone apart. all the volume so DIT] → Part selection	ettings for on → Opera	ator selection	on → [Level]				EQ Arpeggio Common Individual Advanced Motion Seq Common Lane Mod / Control Part LFO 2nd LFO Control Assign
0: All note 99: Adjac Evel From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED	e semitone apart. all the volume so DIT] → Part selection	ettings for on → Opera	ator selection	n → [Level] - J 130	<u>।।।।</u> 0			EQ Arpeggio Common Individual Advanced Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW
0: All note 99: Adjac Level From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED	e semitone apart. all the volume so DIT] → Part selection	ettings for on → Opera	ator selection	n → [Level] - J 130				EQ Arpeggio Common Individual Advanced Motion Seq Common Lane Part LFO 2nd LFO Control Assign Receive SW
0: All note 99: Adjac Evel From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED Edit - Part1 - Operator	e semitone apart. all the volume se DIT] → Part selectio	ettings for on → Opera FX	ator selection	n → [Level] - J 130 ₽	<u>।।।।</u> 0		- - - - - - -	EQ Arpeggio Common Individual Advanced Common Lane Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW arator Form / Freq
0: All note 99: Adjac Evel From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED Edit - Part1 - Operator	e semitone apart. all the volume so DIT] → Part selection -1 Attack Decay1	ettings for on → Opera FX Decay2	ator selection	n → [Level] J 130	3]5 7 2 4 6 8		- - - - - - -	EQ Arpeggio Common Individual Advanced Motion Seq Common Lane Part LFO 2nd LFO Control Assign Receive SW
0: All note 99: Adjac Evel From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED Edit - Part1 - Operator	e semitone apart. all the volume se DIT] → Part selectio	ettings for on → Opera FX	ator selection	n → [Level] - J 130 ₽	3]5 7 2 4 6 8		- - - - - - -	EQ Arpeggio Common Individual Advanced Common Lane Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW arator Form / Freq
0: All note 99: Adjac Evel From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED Edit - Part1 - Operator	e semitone apart. all the volume so DIT] → Part selection -1 Attack Decay1	ettings for on → Opera FX Decay2	ator selection	n → [Level] J 130	3]5 7 2 4 6 8		- - - - - - -	EQ Arpeggio Common Individual Advanced Common Lane Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW arator Form / Freq
0: All note 99: Adjac Evel From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED Edit - Part1 - Operator	e semitone apart. all the volume se DIT] → Part selection 1 Attack Decay1 0 68 Attack Decay1	ettings for on → Opera FX Decay2 80 Decay2	Release 42 Rel(Hold)	n → [Level] J 130 Break Point A 4 LvI/Key Lo	3 5 7 2 4 6 8 0 Lvi/Key Hi		- - - - - - -	EQ Arpeggio Common Individual Advanced Common Lane Common Lane Mod / Control Part LFO 2nd LFO Control Assign Receive SW erator Form / Freq
0: All note 99: Adjac Evel From the Level di Operation [P	cent notes are pitched one lisplay you can make PERFORMANCE] → [ED Edit - Part1 - Operator	e semitone apart. all the volume se DIT] → Part selection 1 Attack Decay1 0 68	ettings for on → Opera FX Decay2 80	ator selection	n → [Level] J 130 Break Point A 4	 ・ ・		- - - - - - -	EQ Arpeggio Arpeggio Common Individual Advanced Common Lane Common Lane Part LFO 2nd LFO Control Assign Receive SW arator Form / Freq

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

eference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio
Level (Operato Determines the o Settings: 0 – 99	or Level) output level of the Operat	tor.			Normal Part (FM-X) Edit Common
-					Part Settings
•	el Velocity Sensitivity				General
	the output level of the O	perator responds to Vel	locity.		Algorithm
Settings: -7 – +7	values: The more strongly y	ou play the keyboard, the n	poro the output rises		Zone Settings
	e values: The more softly you				Zone Transmit
-	utput level does not change.		·		Pitch / Filter
Time/Vov (AEC	C Time Key Follow S				Pitch
	G Time Key Follow Se legree to which the notes		ition or octave ra	nac) affect the Ampliture	PEG/Scale
EG Times.	egree to which the hotes	s (Specifically, their pos	ILIUIT UI UCIAVE TA	nge) anect the Amplitud	Filter Type
Settings: 0 – 7					Filter EG
	values: High notes result in	a fast Amplitude EG transiti	on speed while low	notes result in a slow speed	Filter Scale
0: The Ar	mplitude EG transition speed	does not change, regardles	ss of the played note	9.	Effect
Break Point					Routing
	Amplitude Scale Break Po	oints by specifying thei	r respective note	e numbers.	Ins A
Settings: A-1 – C8	·		·		Ins B
					EQ
Curve Lo (Low Curve Hi (High					Arpeggio
	curve for Amplitude scali	na			Common
Settings: -Linear, -E		ig.			Individual
-					Advanced
Lvl/Key Lo (Lo					
LvI/Key Hi (Hig		(abaya)			Motion Seq
Settings: 0 – 99	curve degree of the curve	e (above).			Common
Settings. 0 - 00					Lane
	divided in two at the brea				Mod / Control
	de at the right is set by u		he R Curve; the I	ow-pitch side at the left	
set by using the i	L Depth and the L Curve	as described below.			2nd LFO
	C	Dutput Level 🔺 +			Control Assign
			<i>A</i>		Receive SW
	+exp	+linear +linea	ar +exp		Operator
	\	$\langle \rangle \rangle$			Form / Freq
		$\backslash \backslash / /$			Level
	Low Cur		igh Curve High D	epth	
			Key		

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.

-linear

-exp

Break Point Output Level

linear
Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Normal	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] → [EDIT] → PART [COMMON] → [General]

n L Edi	t - Common/Auc	lio	F	≺ ₩₩₩ ~	🖶 🚽 140	≡ ¢
General	Performance Na	me Freaky Dano	er	[^{T]} Motion Cont		lag ▼ AWM2
Audio In	Volume	Pan		Var Return	Rev Return	
Audio In	127	С		96	64	
Motion Seq	Audition	Phrase Number		Note Shift	Velocity Shift	
Control		1	Ap Balld1	+0semi	+0	
Control	Portamento	Master SW	Time		RB Mode	
Effect		ON	+0		Hold	Reset
	Assign 1 Mode		Assign 2 Mode		MS Hold Mode	
	Momentary	Latch	Momentary	Latch	Momentary	Latch

Common/Audio Edit					
Com	non/Audio				
> G	eneral				
Α	udio In				
	Mixing				
	Routing				
	Ins A				
	Ins B				
	EQ				
Μ	otion Seq				
	Common				
	Lane				
С	ontrol				
	Control Assign				
	Control Number				
Ef	ffect				
	Routing				
	Variation				
	Reverb				
	Master FX				
	Master EQ				

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 26). The Performance can be filtered as "MC" in the Performance Category Search display (page 161). **Settings:** Off, On

Tg Flag (Tone Generator Flag)

Determines 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 26). The Performance can be filtered as "AWM2/FM/FM-X+AWM2" in the Performance Category Search display (page 161). **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

eference	Performance	Edit	Search	n Util	lity	Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Corr	nmon/Audio
Rev Return (Re	2					Common/Audio Edit
Determines the re Settings: 0 – 127	eturn level of the Reverb) effect.				Common/Audio
Audition Phras	se Number					Audio In
Determines the Au	Audition Phrase Number.	r. You can hear a sample				Mixing
is called "Audition		tching Audition Phrase i				Routing
advance.						Ins A
Settings: 1 – 850						Ins B
•	dition Phrase Note S					EQ
		etting for the Audition Phr	rase in semitone	∋S.		Motion Seq
Settings: -24semi –	+24semi					Common
Velocity Shift (Audition Phrase Vel	locity Shift)				Lane
Determines the ve	elocity of the Audition P					Control
Settings: -63 - +63	J					Control Assign
Portamento M	aster SW (Portament	to Master Switch)				Control Number
	-	ed to the Part or not whe	en the "Portamer	nto Part SW" is set to	on for	Effect
the Part.						Routing
Settings: Off, On						Variation
Portamento Tin	me					Reverb
		ate when Portamento is a	applied.			Master FX
Settings: -64 - +63			•••			Master EQ
PP Made (Rib)	bon Controller Mode	-)				Master La
•		e) esponds when released.				
Settings: Hold, Rese		opondo whom releaced.				
Hold: Whe		our finger from the Ribbon Co	ontroller maintains t	he value at the last point	of	
contact. Reset: Wh center.	/hen set to Reset, releasing	your finger from the Ribbon (Controller automati	cally returns the value to	the	
Assign 1 Mode	Assian 2 Mode (As	signable Switch 1 Mo	ode/Assignab	le Switch 2 Mode)	1	
-		d [ASSIGN 2] buttons fur	-			
Settings: Latch, Mor	omentary					
		g the button alternates the sta				
Momenta	ary: When set to "Momentar	ry," pressing/holding the butt	ion turns on and re-	leasing the button turns of	off.	

MS Hold Mode (Motion Sequencer Hold Mode)

Determines how the [MOTION SEQ HOLD] button responds when pressed.

Settings: Latch, Momentary

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.

Reference	Performance	Edit	Search	Utility	Utility		
		Normal Part (AWM2)	Drum Part	Normal 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] \rightarrow [EDIT] \rightarrow PART [COMMON] \rightarrow [Audio In] \rightarrow [Mixing]

A	1_ Edit	- Common/Aud	io	F	X IIIIII	لا 🚓	0 💷 Ö
General	Mixing						
Audio In	Dautian	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				
		Volume	Pan	Dry Level	Var Send	Rev Send	Output Select
		100	R36	127	0	0	MainL&R

Common/Audio Edit								
Com	non/Audio							
General								
Audio In								
	Mixing							
	Routing							
	Ins A							
	Ins B							
	EQ							
N	otion Seq							
	Common							
	Lane							
C	ontrol							
	Control Assign							
	Control Number							
E	ifect							
	Routing							
	Variation							

Reverb Master FX Master EQ

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

 ${\boldsymbol{\mathsf{L}}}$ 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." **Settings:** 0 – 127

Reference	Performance	Utility	Live Set		
		Normal Part (AWM2)	Common/Audio		
•		Digital Part Reverb Se Part/Digital Part signal se		This is available	Common/Audio Edit
only when "Part (Settings: 0 – 127	Output" is set to "MainLa	&R."			General
Determines the s Settings: MainL&R, MainL&F AsgnL& USB1&2 AsgnL: (AsgnR: (USB1 – (coecific output(s) for the AsgnL&R, USB1&2USB2 Coutputs in stereo (two cha Coutputs in stereo (two cha UsB29&30: Outputs in s Dutputs in mono (one chann Dutputs in mono (one chann	ut Select/Digital Part I individual A/D Part/Digita 29&30, AsgnL, AsgnR, USB1 – annels) to the OUTPUT [L/MO annels) to the ASSIGNABLE C tereo (Channels 1&2 – 29&30 el) to the ASSIGNABLE OUTP iel) to the ASSIGNABLE OUTP iel to the ASSIGNABLE OUTP iels 1 – 30) to the [USB TO HC tput.	al Part signal. 30, Off NO]/[R] jacks. DUTPUT [L]/[R] jacks. to the [USB TO HOST] terr UT [L] jack. UT [R] jack.	ninal.	Audio In Mixing Routing Ins A Ins B EQ Motion Seq Common Lane Control
Routing					Control Assign
Erom the Bouting	display you can detern	nine the Effect connectio	as for the Λ/D Part		Control Number Effect
	ERFORMANCE] → [EDIT	$] \rightarrow PART [COMMON] \rightarrow [Au sertion FX Switch$			Routing Variation Reverb Master FX
💼 🛍	Edit - Common/Audio	FX	🚛 🦟 J 140		Master EQ
Audio In Rou Motion	ting s A AD / IN	A ON Side Chain Of Category Type Phaser Dynamic Preset Follo	Phaser	Rev Send O Var Send O	

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.

ategory

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.

₽

Output Select MainL&R

Reference	Performance	Edit	Search		Utility			Live Set	
		Normal Part (AWM2)	Drum Part	Normal	Part (FM-X)	Com	mon/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 67). **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 19) of the "Basic Structure." **Settings:** Ins $A \rightarrow B$, Ins $B \rightarrow A$

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

Envelope Follower

Calls up the Envelope Follower setting display. For details, see the Routing display (page 68) 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, AsgnL&R, USB1&2...USB29&30, AsgnL, AsgnR, USB1 – 30, Off

MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks.
AsgnL&R: Outputs in stereo (two channels) to the ASSIGNABLE OUTPUT [L]/[R] jacks.
USB1&2...USB29&30: Outputs in stereo (Channels 1&2 – 29&30) to the [USB TO HOST] terminal.
AsgnL: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [L] jack.
AsgnR: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [R] jack.
USB1 – 30: Outputs in mono (Channels 1 – 30) 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 69).

EQ (Equalizer)

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 70) except that "3-band EQ" is inactive.

Common	/Audi	o Edit
Common	/Auui	o Euii

Co	omn	non/Audio						
	Ge	eneral						
	Αι	ıdio In						
		Mixing						
		Routing						
		Ins A						
	Ins B							
	Þ EQ							
	Mo	otion Seq						
		Common						
		Lane						
	Сс	ontrol						
		Control Assign						
		Control Number						
	Ef	fect						
		Routing						
		Variation						
		Reverb						
		Master FX						
		Master EQ						

Reference	Performance	Edit	Search			Utility		l	_ive Set	
		Normal Part (AWM2)	Drum Part		Normal F	Part (FM-X)		Commo	on/Audio	

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] → [EDIT] → PART [COMMON] → [Motion Seq] → [Common]

A	🕇 Edit	- Common/	'Audio		E	x	k, ∎	140	¢
General	Common	Common	lock	Δ	ırp		Mot	ion Seq	
Audio In	Lane	Swing	Unit	Gate Time	Velocity	Amplitude	Shape	Smooth	Random
Motion Seq		+0	100%	+0	+0	+0	+0	+0	
Control]	Random
Effect									0
							Sync F Pá	Part ▼ art 1	Arp/MS Grid

Сс	Common/Audio							
	Ge	eneral						
	Αι	ıdio In						
		Mixing						
		Routing						
		Ins A						
	Ins B							
		EQ						
	Motion Seq							
		Common						
		Lane						
	Сс	ontrol						
		Control Assign						
		Control Number						
	Ef	fect						
		Routing						
		Variation						
		Reverb						
		Master FX						
		Master EQ						

Common/Audio Edit

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

Reference	Performance	Edit	Search	Utility	Live Set
		Normal Part (AWM2)	Drum Part Norma	al Part (FM-X) Commo	on/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 32.

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 81).

Common/Audio Edit

Co	Common/Audio								
	Ge	eneral							
	Au	idio In							
		Mixing							
		Routing							
		Ins A							
	Ins B								
		EQ							
	Motion Seq								
		Common							
		Lane							
	Сс	ontrol							
		Control Assign							
		Control Number							
	Eff	fect							
		Routing							
		Variation							
		Reverb							
		Master FX							
		Master EQ							

Reference		Performance	Edit	Se	arch	Utili	ity	Live Set	
			Normal Part (AWM2)	Drum Par	rt No	ormal Part (FM-X)	Commo	on/Audio	
							Cr	ommon/Audio Edit	
Control							d	Common/Audio	
								General	
Control A	Assign							Audio In	
								Mixing	
Operation	[PERF	ORMANCE] → [EDIT]	\rightarrow PART [COMMON] \rightarrow	→ [Control] → [C	ontrol Assi	ign]		Routing	
								Ins A	
•	🛍 Edit	- Common/Audio	FX		J 90	i o		Ins B	
	-	Auto Display Filter	T Display Na	ame	[7]	Page		EQ	
General	Control Assign	Select AsgnK		Assigned		1		Motion Seq	
		Destination 1						Common	
Audio In	Control Number		+					Lane	
		Part 2 Assign 1						Control	_
Motion Seq		Source						Control Assig	gn
		AsgnKnob 1						Control Num	ber
Control								Effect	
		-						Routing	
Effect								Variation	
		Destination				D		Reverb	
		Destination to Name				Delete		Master FX	
						All some of the local division of the local		Master EQ	

Same as the Element Common Edit parameters for Normal Parts (AWM2) (page 89), 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

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

Control Number

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. **NOTE** External controllers include external sequencers and external MIDI controllers.



	🛍 Edit	- Common/Auc	lio	E	x	J 140	iii o
General	Control Assign						
Control	Ribbon Ctrl	Breath Ctrl	Foot Ctrl 1	Foot Ctrl 2			
Audio In	Number	16	2	11	4		
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		
Effect		17	18	19	20		
		Assign Knob 5	Assign Knob 6	Assign Knob 7	Assign Knob 8		
		21	22	23	24		

Comn	non/Audio
Ge	eneral
Αι	udio In
	Mixing
	Routing
	Ins A
	Ins B
	EQ
M	otion Seq
	Common
	Lane
Сс	ontrol
	Control Assign
	Control Number
Ef	fect
	Routing
	Variation
	Reverb
	Master FX

Master EQ

Common/Audio Edit

Ribbon Ctrl (Ribbon Controller Control Number)

Determines the Control Change Number generated by using the Ribbon 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 Ribbon Controller.

Settings: Off, 1 - 95

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

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

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

Effect

Routing

From this display you can determine the System Effect and Master Effect connections that commonly affect all Parts.

Operation [PERFORMANCE] → [EDIT] → PART [COMMON] → [Effect] → [Routing]

Variation Switch

Reverb Switch



Master Effect Switch

Variation/Reverb/Master Effect Switch

Determines whether Variation/Reverb/Master Effect is active or not. **Settings:** Off, On

Common/Audio Edit

Co	omn	non/Audio					
	Ge	eneral					
	Au	idio In					
		Mixing					
		Routing					
		Ins A					
	Ins B EQ Motion Seq						
		Common					
		Lane					
	Сс	ontrol					
		Control Assign					
		Control Number					
	Ef	fect					
		Routing					
		Variation					
		Reverb					
		Master FX					
		Master EQ					

Reference	Performance	Edit	Search	١	Utilit	у		Live Set	
		Normal Part (AWM2)	Drum Part		Normal Part (FM-X)		Common/Auc	lio	
	ation/Reverb/Master	• • •					Commo	on/Audio Edit	
	n/Reverb/Master Effec						Comm	non/Audio	
	category and type for the			nont	Also for datails on the		Ge	eneral	
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.								Audio In	
Durant (Mariati								Mixing	
•	on/Reverb/Master Eff		o/Dovorb/Mooto		ffoot type decignes	1 +0		Routing	
	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.								Ins B	
Side Chain/Ma	dulatar (Variation/Ma	ator Effect Cide Ch	oin/Modulata	- D	(ovt)			EQ	
	odulator (Variation/Ma Part used for Side Chain/I			٢P	art)		Mc	otion Seq	
	ble when you select the			or P	art.			Common	
Settings: Part 1 – 1	16, A/D, Master, Off							Lane	
Var Boturn (Va	riation Return)						Co	ontrol	
Rev Return (Re	•							Control Assign	
•	eturn level of the Variation	n/Reverb effect.						Control Number	
Settings: 0 - 127							Eff	iect	
Ver Ben (Veriet	tion Don)							Routing	
Var Pan (Variat Rev Pan (Reve	•							Variation	
•	ban position of the Variation	on/Reverb effect.						Reverb	
	eft) – C (center) – R63 (far righ							Master FX	
Vente Dev (Ma	vietien te Devreub)							Master EQ	
var to Hev (Val	riation to Reverb)								

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

Master EQ (Master Equalizer Switch)

Determines whether the Master EQ is active or not. **Settings:** Off, On

Envelope Follower

Calls up the Envelope Follower setting display. See the Routing display (page 67) for the Normal Part (AWM2).

Reference		Performance		Edit		Search	Utility		Live Set
			Norm	al Part (AWM2	2) Drum l	Part N	Normal Part (FM-X)	Common/Au	oib
								Commo	on/Audio Edit
Variation								Comn	non/Audio
From this disp	olay you	can determir	ne the detaile	d settings of	the Variation	effect.		Ge	eneral
Operation		ORMANCE] →			\[[#aat]]\[Variation		Au	ıdio In
Operation	ILERL					vanationj			Mixing
	,	Variation Switc	n			Effec	ct Parameter		Routing
									Ins A
• • •	上 Edit	- Common/Aud	lio	F	X ~	👄 🚽 140	0 📖 🔅		Ins B
	D 11	ON			▼ Preset				EQ
General	Routing	Lo-	Fi	Noisy		Noisy		Me	otion Seq
Accellenter	Variation	Drive	Mod Mix	Mod Speed	Mod Depth	Mod Feedba	ack		Common
Audio In	variation	32	127	127		1 -63			Lane
Motion	Reverb			AM Speed	AM Depth				ontrol Control Assign
Seq				0.80Hz	30				Control Number
Control	Master			0.8002	50	ļ		Ef	fect
	FX	LPF Cutoff	LPF Resonance	EQ Gain					Routing
Effect	Master EQ	20.0kHz	1.0	OdB				•	Variation
	۲Q			EQ Frequency	EQ Width				Reverb
				4.0kHz	1.0				Master FX
				4.0K112	1.0				Master EQ

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.

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.

Reference		Performance		Edit	S	earch	Utilit	ty	Live Set
			Norm	al Part (AWM2	2) Drum F	art Norm	al Part (FM-X)	Common/A	Audio
Reverb								Com	mon/Audio Edit
	play you	can determine	e the detaile	d settings of	the Reverb e	ffect.			nmon/Audio General
Operation		ORMANCE] \rightarrow [everb Switch	[EDIT] → PAR	T [COMMON]	→ [Effect] → [F	Reverb]			Audio In Mixing Routing
A	1 Edit	- Common/Audi		F	X IIIIII ~				Ins A Ins B EQ
General	Routing	ON Category Reve		ace Simulato		Tunnel		_	Motion Seq
Audio In	Variation		Initial Delay	Diffusion	Density	ER/Rev Balance			Common Lane
		5.5s	30.0ms	6	4	E=R			Control
Motion Seq	Reverb		Reverb Delay	Feedback	FB High Damp	HPF Cutoff	LPF Cutoff		Control Assign
	Master		31.6ms	+0	0.7	20Hz	3.2kHz	_	Control Number
Control	FX		Space Type 🔻	Width	Height	Depth	Wall Vary	_	Effect
Effect	Master EQ		1	9.1m	14.2m	19.4m	16		Routing Variation
									Reverb
									Master FX
									Master EQ

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.

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

Master FX (Master Effect)

From this display you can determine the detailed settings of the Master Effect.

Operation [PERFORMANCE] \rightarrow [EDIT] \rightarrow PART [COMMON] \rightarrow [Effect] \rightarrow [Master FX]

	Ма	ster Effect Swit	tch					
A	🕇 Edit	- Common/Aud	lio	FΣ	< ₩₩ ~	J 140		
General	Routing	OFF Categor Tec		t Repeat (fre	▼ Preset e) 1	▼ /16 x 4		
Audio In	Variation	Repeat	Length	Freeze		Output Level	Dry/Wet	
Audio III	Variation	ON	1/4.00	OFF		+0.00dB	D <w63< td=""></w63<>	
Motion Seq	Reverb	Filter Type 🔻	Cutoff	Resonance	Play Speed	Pitch Sweep	Time Sweep	
	Master	Thru	1.00kHz	0.0	+1.00	+0	+0	
Control	FX	Random			Gate Time	Attack Time	Release Time	
Effect	Master EQ	OFF			100%	0%	0%	
		Ln Chg Quantz	Rtg Quantize	Retrigger Cycle	Rtg Gate Time	Rtg Attack T	Rtg Release T	
		Off	OFF	1 beat	100%	0%	0%	

Common/Audio Edit

С

: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

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

Common/Audio Edit Master EQ (Master Equalizer) Common/Audio From this display you can set parameters related to the Master EQ. General Audio In Operation $[PERFORMANCE] \rightarrow [EDIT] \rightarrow PART [COMMON] \rightarrow [Effect] \rightarrow [Master EQ]$ Mixing Routing Master EQ Switch Ins A • J 90 FX Ö Ins B n Edit - Co mmon/Audio EQ -24 ON **Motion Seq** -12 Common Lane 20 50 100 200 500 1k 5k 20k Control Lo Mid Gain Mid Gain Hi Mid Gain High Gain Low Gain **Control Assign Control Number** Effect Routing 3.2kHz Variation Reverb High Q Lo Mid O Mid O Hi Mid O Low Q Master FX Master EQ Peak Peak

Low Shape

High Shape

Master EQ Switch

Determines whether the Master EQ is active or not. **Settings:** Off, On

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

Lo Mid Freq (Master EQ Low Mid Frequency)

Determines the frequency for the Master Low Mid band. **Settings:** 100Hz - 10kHz

Reference	Performance	Edit	Search	Utility		Live Set
		Normal Part (AWM2)	Drum Part	Normal Part (FM-X)	Common/Audio	D
• •	ter EQ Mid Frequency requency for the Master N 10kHz				Commo	n/Audio Edit on/Audio neral
• •	aster EQ High Mid Fre requency for the Master H 10kHz	• • • •			Aud	lio In Mixing Routing
• • • •	ster EQ High Frequen requency for the Master H 16kHz	• •				Ins A Ins B EQ
Low Q (Master Determines the E Shape (below) is Settings: 0.1 – 12.0	EQ bandwidth of the Mast set to "Peak."	ter Low band. This is a	available only whe	en the Master EQ Low		ion Seq Common Lane Itrol
•	t er EQ Low Mid Q) Q bandwidth of the Mast	ter Low Mid band.				Control Assign Control Number
Mid Q (Master Determines the E Settings: 0.1 – 12.0	Q bandwidth of the Mast	ter Mid band.			`	Routing Variation Reverb
•	ter EQ High Mid Q) EQ bandwidth of the Mast	ter High Mid band.				Master FX Master EQ

High Q (Master EQ High Q)

F

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

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)

Operation

Edit

Search

Utility

Category Search

or

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.

Performance Category Search

From the Performance Category Search display you can search and select the Performance.

In case of Performance Category Search

[PERFORMANCE] → [CATEGORY] (Performance Category Search)

Touch the Performance Name → Select [Search] from the displayed menu

n 1	Performa	nce Catego	ory Search		FX		r~ J 1	30	0
	Bank		▼ Attrib	ute	-	p			[7]
Main	All		All						
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	Init
All	Acoustic	Layer	Modern	Vintage	Rock/Pop	R&B/ Hip Hop	Electronic	Jazz/World	No Assign
Full Conce			Grand Pia		Mellow Gr		Glas		
Romantic	Piano		Rum2 essive Grai		Tacky	AMWS		se Piano	555
Old and S	quashed	Balla			80s Layer			ad Stack	
		Diano	& Strings	555	Piano & O	oh Choir	Mon	aural Gran	d MW
Piano Bac			RWM2	_555		AMW2	-555	RWM2	235

Name Search

Performance list

Bank (Performance Bank Select)

Filters the Performance List by Bank. Settings: All, Preset, User, Library Name (when the Library file is read)

Attribute (Performance Attribute)

Filters the Performance List by Attribute (page 145). This is not available for Part Category Search. Settings: All, AWM2, FM, FM-X+AWM2, 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.

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 171) is set to on in the Utility display. Settings: Off, On

Search Performance Category Arp Category

Waveform

Search

Sort (Sort Order)

Operation

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.

In case of Part Category Search

or

 $\label{eq:constraint} \begin{array}{l} [\mathsf{PERFORMANCE}] \rightarrow \mathsf{Part\ selection} \rightarrow [\mathsf{SHIFT}] + [\mathsf{CATEGORY}] \ (\mathsf{Part\ Category\ Search}) \\ (\mathsf{When\ the\ Part\ to\ which\ any\ sounds\ are\ assigned\ is\ selected}) \ \mathsf{Touch\ the\ Part\ Name} \rightarrow \mathsf{Select\ [Search]} \\ \mathsf{from\ the\ displayed\ menu} \end{array}$

(When the Part to which no sound is assigned is selected) Touch "+" icon

n t	Part1 - Ca	ategory Se	arch		FX		i 🖓 🖓	30	Ø
Main	Bank All		•			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	Acoustic	Layer	Modern	Vintage	Rock/Pop	R&B∕ Hip Hop	Electronic	Jazz/World	No Assign
Full Concer	rt Grand	Rock	Grand Piar	ויייי	Mellow Gr	and Piano	Glas	gow	
Romantic F	Piano	Aggre	essive Gra	nd	Tacky		Hou	se Piano	
Old and Sq	Old and Squashed Ballad Key				80s Layer			Ballad Stack	
Piano Back Piano & Strings				Piano & Oo	oh Choir	Mon	aural Gran	d MW	
Solo	Sort Def	ault Nar	ne Dat		ram. with par rp/MS S		Zone		~

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 171) is set to on in the Utility display. **Settings:** Arp/MS, Scene, Zone

Search

Performance Category
Arp Category
Waveform

Search

Name Search

Live Set

Arpeggio Category Search (Arp Category Search)

From the Arpeggio Category Search display you can search and select Arpeggio Types.

Operation Arpeggio relat

Arpeggio related display \rightarrow Part selection \rightarrow [CATEGORY]

Main	Bank All		•			Q			
AII	Piano	Keyboard	Organ	Guitar	Bass	Strings	Brass	Woodwind	No Assigi
Sub	Syn Lead	Pad/Choir	Syn Comp	Chromatic Perc	Drum/Perc	Sound FX	Musical FX	Ethnic	Control , HybridSe
AII	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	
EA_Jumb	o Reggae _C	EB_Ji	ımbo Regg	ae_C	MA_Pf Ar	p1	MA_	_Pf Arp2	
MA_Pf Arp3 MA_Pf Ar			f Arp4		MA_Pf Ar	rp5 MA_Pf Arp6		_Pf Arp6	
MA_Pf Arp7 MA_Pf Arp8			f Arp8		MA_Pf Ar	р9	MA_	Pf Arp10	
Sort									

Arpeggio Type list

Bank (Arpeggio Bank Select)

Filters the Arpeggio List by Bank. **Settings:** All, Preset, User, Library Name (when the Library file is read)

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.

Search

Performance Category
Arp Category
Waveform

Search

Utility

Live Set

Waveform Category Search (Waveform Search)

From the Waveform Category Search display you can search and select the Waveforms.

Operation Waveform relat

Waveform related display \rightarrow Part selection \rightarrow Waveform selection \rightarrow [CATEGORY]

Search				
	Performance Category			
	Arp Category			
	Waveform			

n t	Part1 - El	em1 - Wav	eform Sea	rch	FX	[]][]]	r⇔ J	90	•
Main	Bank All		•			م			[Τ
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	
All	Rd	Wr	FM	Clavi	Other				
Rd Soft m	p	Rd So	ftmf		Rd Soft f		Rd S	Soft ff	
Rd Soft Ke	eyOff	Rd Ha	ird mp		Rd Hard m		Rd I	Hard f	
Rd Hard ff		Rd Ha	ird KeyOff		Rd73 p		Rd7	'3 mp	
Rd73 mf		Rd73	f		Rd73 ff		Rd7	'3 KeyOff	
	Sort Def	ault Nar	ne Dat	e				~	>

Waveform list

Bank (Waveform Bank Select)

Filters the Waveform List by Bank. Settings: All, Preset, User, Library Name (when the Library file is read)

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.

Performance

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Utility

Live Set

Utility

The Utility display has four tabs; the Setting tab, the Contents tab, the Tempo Settings tab, and the Effect Switch 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] → [Settings] → [Sound]

•	🕇 Utili	ty		FX	┓ ┉┉ ⊷	J 140	o
Settings	Sound						
Contents	Quick	Tone Generator	Volume	Note Shift	Tune		
contents	Setup		127	+0semi	+0.0	440.0Hz	
Tempo Settings	Audio I/O		Sustain Pedal	•			
Effect	MIDI		FC3A (H	lalf On)			
Switch	I/O	Keyboard	Octave Shift	Transpose	Velocity Curve		Fixed Velocity
	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 (Footswitch Sustain Pedal Select)

Selects the Footswitch 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.

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Þ

Live Set

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

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.

Operation

[UTILITY] \rightarrow [Settings] \rightarrow [Quick Setup], [SHIFT] + [UTILITY], or Touch the QUICK SETUP icon



QUICK SETUP icon

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
	Main L&R Gain
	Assign L&R Gain
	USB Main L&R Gain
	USB 1-30 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
Part Output Settings	Part 1-16 Output Select
	A/D In Output Select
	Digital In Output Select

For details about parameters related to Audio Settings, see "Audio I/O" (page 168). For details about parameters related to MIDI Settings, see "MIDI I/O" (page 169).

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

Uitlity	
S	ettings
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Quick Setup Audio I/O MIDI I/O Advanced

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	

Store Current Settings

Stores the edited settings as 1 – 3 of "QuickSetup."

Audio I/O

From the Audio I/O display you can set the parameters related to Audio Input and 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.

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.

Audio I/O Mode

Determines the Output mode of the Audio signal input from the [USB TO HOST] terminal. To activate this setting, the instrument needs to be rebooted.

Settings: 16 Stereo/44.1kHz, 4 Stereo/44.1-192kHz

16 Stereo/44.1kHz: Audio data sending capability for the instrument is a maximum 32 channels (16 stereo channels) at a sampling frequency of 44.1 kHz.

4 Stereo/44.1-192kHz: Audio data sending capability for the instrument is a maximum 8 channels (4 stereo channels) for a sampling frequency of 44.1 kHz to 192 kHz.

NOTE When "4 Stereo/44.1-192kHz" is selected, available frequencies are only 44.1 kHz, 48 kHz, 96 kHz, and 192 kHz.

Main L&R (Main L&R Output Gain)

Determines the output gain of the OUTPUT (BALANCED) [L/MONO]/[R] jacks. **Settings:** -6dB, +0dB, +6dB, +12dB

Reference		Performanc	e	Edit	S	earch	Utility		Live Set
Assign L&F	• •	-	• •					Uitlity	
Determines the Settings: -6dB		0	ASSIGNABLE	E OUTPUT (B	BALANCED) [L]/[R] jacks.		Se	ettings
Settings: -60B	, +UUD, +	60D, +120D							Sound
USB Main (• •						Quick Setup
		•	Main L&R cha	annel of the [USB TO HOS	[] terminal.			Audio I/O
Settings: -6dB	s, +0dB, +	6dB, +12dB							MIDI I/O
USB 1-30 (L	JSB 1 -	- 30 Output	Gain)						Advanced
Determines th	he outpu	It gain of $1 - 1$	30 channels c	of the [USB T	O HOST] term	ninal.			System
Settings: -6dB	s, +0dB, +	6dB, +12dB						Cc	ontents
Direct Moni	itor (Di	ect Monito	r Switch)						Load
	•			ch is output t	o the external	device via t	ne "Main L&R (USB		Store / Save
Out)" or "USB	3 1-30" c	hannels also	sounds from	this instrume	ent (Direct Mon	itoring). Whe	en this is set to "on,"		Data Utility
							is also output to the	Те	mpo Settings
					jack. When the natically turne		evice is not	Ef	fect Switch
Operation	UTILI	rY] → [Settings	s] → [MIDI I/O]		MIDI Input ar				
Settings	Sound			Local	Control				
	Quick	Ke	eyboard ———		Arpeggi	ator ——> Tone	Generator		
Contents	Setup		MIDI In ———		<u> </u>	> MIDI	Out		
Tempo Settings	Audio I/O	MIDI	MIDI IN/OUT		Switch	Local Control	Arp MIDI Out		
Effect	MIDI		MIDI	USB		ON	OFF		
Switch	1/0	Sync	MIDI Sync	Clock Out	Song Play/Stop	Receive	Transmit		

ON

ON

MIDI IN/OUT

Determines which physical output/input terminal(s) will be used for transmitting/receiving MIDI data. **Settings:** MIDI, USB

MIDI

Controller Reset

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.

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)

Performance

Determines whether to output MIDI data of Arpeggio playback or not. **Settings:** Off, On

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

Edit

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

Controller Reset

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). **Settings:** Hold, Reset

If you select "reset," the controllers will be reset to the following states/positions:

Pitch Bend	Center
Modulation Wheel	Minimum
Aftertouch	Minimum
Foot Controller	Maximum
Footswitch	Off
Ribbon Controller	Center
Breath Controller	Maximum
Expression	Maximum
Assignable Switches 1 and 2	Off
Motion Sequencer Hold	Off
Each Lane of Motion Sequencer	0 (minimum) when Lane Motion Sequencer Polarity is set to "Unipolar" 64 (center) when Lane Motion Sequencer Polarity is set to "Bipolar"

FS Assign (Footswitch Assign Control Number)

Determines the Control Change number generated by using the Footswitch 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 Footswitch.

Settings: Off, 1 – 95, Arp SW, MS SW, Play/Stop, Live Set+, Live Set-, Oct Reset

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Advanced

From the Advanced display you can set the advanced parameters.

Operation $[UTILITY] \rightarrow [Settings] \rightarrow [Advanced]$

A	🕇 Utili	ty		F	< ₩₩ ~	J 140	
Settings	Sound						
Contents	Quick	Advanced Mode	Zone Master	Audition Lock			
contents	Setup		ON	OFF			
Tempo Settings	Audio I/O	MIDI	Device Number	Bank Select	Pgm Change	Receive Bulk	Bulk Interval
Effect	MIDI		All	ON	ON	On	Oms
Switch	1/0	Sequencer	Event Chase				
	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

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

Reference	Performance	Edit	Search	Utility	Live Set
Event Chase	(Song Event Chase)			Uit	lity

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 memory device before executing this procedure.

System

From the System display you can make global system settings for the instrument.

Operation $[UTILITY] \rightarrow [Settings] \rightarrow [System]$

A	🛍 Utili	ty		FX			J	90		0
Settings	Sound			MUSIC SYNTHE	SIZER	mε	JL	ÌΤÍ	٦C	ΞĒ
Contents	Quick	Boot	Power on Mode						Calib	□ orate
Contents	Setup		Live Set						Touch	Panel
Tempo Settings	Audio I/O	Power Option	Auto Power Off						Initi	D alize
Effect	MIDI		30min						All Se	ttings
Switch	1/0	UI	Animation	Blur	Beep				Initi	D alize
	Advanced		ON	ON	c	DN			User	
		LED	Knob Flash	KnobBrightness	Half Glo	ow 🔻			Initi	⊠ alize
	System		ON	128	1,	/4			AII (Data
		MONTAGE Fir	mware Version	: 1.00.0	(c)2	016 Yam	aha Coi	poratio	on	

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

Animation (Animation Switch)

Determines whether the animation of screen transition is turned on or off. **Settings:** Off, On

ity					
Se	ettings				
	Sound				
	Quick Setup				
	Audio I/O				
	MIDI I/O				
	Advanced				
	System				
Сс	ontents				
	Load				
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Effect Switch					

Reference	Performance	Edit	Search	Utility	_	Live Set
Blur (Blur Swi When any displa	ritch) ay is selected, the display	v previously selected is t	olurred. This parameter c		tlity	attingo
	r function is turned on or o				36	ettings Sound Quick Setup
	Switch) ether the beep sound (that	t confirms operations, m	enu/parameter selection	n, etc.) is turned		Audio I/O MIDI I/O
Settings: Off, On	on or off. Settings: Off, On Knob Flash (Super Knob LED Switch) Determines whether the flashing function of the Super Knob is turned on or off. Settings: Off, On				►	Advanced System
Determines whe					Co	ontents Load
-	KnobBrightness (Knob Brightness) Controls the brightness of the lighting of the Super Knob.					Store / Save Data Utility
Settings: 0 – 128						empo Settings

Calls up the Calibration display for the Touch Panel. Calibration of the touch panel may be necessary if the

Initializes User data (Performance, Motion Sequence, and Live Set) in the specified area of the User

Initializes all User data in the User memory and all system settings you created on the Utility display.

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 memory

Half Glow (LED Half Glow Brightness) Controls the dimming of the button lamps.

touch panel does not respond correctly.

device before executing this procedure.

Initializes all system settings you created on the Utility display.

memory and system settings you created on the Utility display.

Settings: Off, 1/4, 1/2

Calibrate Touch Panel

Initialize All Settings

Initialize User Data

Initialize All Data

NOTICE

Effect Switch

leference	Performance	Edit	Search	Utility	Live Set
Contents					Uitlity
Contents					Settings
					Sound
Load					Quick Setup
From the Load dis	play you can load files an	d data.			Audio I/O
					MIDI I/O
Operation [U	$FILITY] \rightarrow [Contents] \rightarrow [Load]$]			Advanced
	Paran	Folder Name Curr	ent Folder Name Free Stora		System
				.ge	Contents
💼 🛍 🕻	Jtility	FX	🚛 🛶 🖌 140	•	Load
	Content Type		Storage		Store / Save
Settings Loa	User File	es > YA_8	3GB_usb1-1 2.3GB/7.2GB	Job	Data Utility
	re montage set				Tempo Settings
Contents / Sa					Effect Switch
Tempo Da Settings Util					
Effect Switch					
	Sort Name↓ Size		Page 1/1		

Folder/File select

Content Type

Among the various types of data saved in a single file on a USB flash memory 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.

Settings: The file types which can be loaded as follows.

File Types	Device Type	Extension	Description
User File	File	.X7U	Files of the "User File" type saved to USB flash memory can be loaded and restored to the dedicated area in the User Memory of the instrument (page 22). 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
Library File	File	.X7L	 Files of the "Library File" type saved to USB flash memory can be loaded and restored to the dedicated area in the User Memory of the instrument (page 22). 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

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Live Set

File Types	Device Type	Extension	Description	Uitlity	
Song&Perf Internal data			A specified Song in a file that is saved to the dedicated	Se	ettings
			area in the User Memory as a "Song" type can be		Sound
			individually selected and loaded (played back) to the instrument. Both of MIDI sequence and Performance data		Quick Setup
			can be loaded.		Audio I/O
Song	Internal data		A specified Song in a file that is saved to the dedicated		MIDI I/O
			area in the User Memory as a "Song" type can be individually selected and loaded (played back) to the		Advanced
			instrument. Only MIDI sequence data can be loaded.		System
.mid File	File	.MID	Standard MIDI File (SMF in format 0, 1) data that is saved	C	ontents
			to USB flash memory can be loaded and played back.		Load
.wav File	File	.WAV	Audio data (Wave File) that is saved to USB flash memory can be loaded and played back.		Store / Save
Audio File*	File	.WAV	Audio data (Wave File and AIFF File) that is saved to USB		Data Utility
		.AIF	flash memory can be loaded and as "Waveform."	Те	empo Settings
			Example: [PERFORMANCE] \rightarrow [EDIT] \rightarrow Part selection \rightarrow Element selection \rightarrow [Osc/Tune] \rightarrow "New Waveform"	Ef	fect Switch
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] \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.

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." Settings: Off, On

	TIF XF6/MOTIF XF7/MOT		Uitlity
		AGE7/MONTAGE8 among all MOTIF XF6/MOTIF d as "User File" or "Library File."	Settings
	ntent Type between User file		Sound
		-	Quick Setup
File Type on MOTIF XF	Extension on MOTIF XF		Audio I/O
All AllVoice (All Voice)	.X3A .X3V	User Voice, User Arpeggio, User Waveform User Voice, User Waveform	MIDI I/O
IIArp (All Arpeggio)	.X3V .X3G	User Arpeggio	Advanced
AllWaveform (All Waveform)	.X3W	User Waveform	System
	.//044		Contents
			Load
			Store / Save
- /-			
Store/Save			Data Utility
om the Store/Save display	v you can store Files and data Contents] → [Store / Save] or DRE] button Parent Folder Name	a. Current Folder Name Free Storage	Data Utility Tempo Settings Effect Switch
rom the Store/Save display	Contents] → [Store / Save] or DRE] button		Tempo Settings
rom the Store/Save display Operation [UTILITY] → [Press the [ST	Contents] → [Store / Save] or DRE] button Parent Folder Name	Current Folder Name Free Storage	Tempo Settings
Operation [UTILITY] → [Press the [ST Image: Content of the settings Load Content of the settings Load	Contents] → [Store / Save] or DRE] button Parent Folder Name	Current Folder Name Free Storage	Tempo Settings
rom the Store/Save display Operation [UTILITY] → [Press the [STO Contents Store [Store Contents Store [Store Tempo Data	Contents] → [Store / Save] or DRE] button Parent Folder Name	Current Folder Name Free Storage	Tempo Settings
rom the Store/Save display Operation [UTILITY] → [Press the [STO Contents Store [Store Contents Store [Store Tempo Data Settings Utility Effect Switch	Contents] → [Store / Save] or DRE] button Parent Folder Name t Type formance > MONTAGE	Current Folder Name Free Storage	Tempo Settings

File select

Content Type

You can store all data or the specified data to the instrument or USB flash memory. 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 22).

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Utility

Live Set

File Types	Device Type	Extension	Description	Uitlity
User File	File	.X7U	Data that is stored to the dedicated area in the User Memory can be saved to USB flash memory. 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	Settings Sound Quick Setup Audio I/O MIDI I/O Advanced System Contents Load
Library File	File	.X7L	Data that is stored to the dedicated area in the User Memory can be saved to USB flash memory. Data saved as "Library File" is as follows. • Performance • Arpeggio • Motion Sequence • Curve • Live Set (User1 Bank only) • Micro Tuning • Waveform	 Store / Save Data Utility Tempo Settings Effect Switch
.mid File	File	.MID	MIDI data that is stored to the dedicated area in the User Memory (page 22) can be saved as a Standard MIDI File (SMF only in format 0) to USB flash memory.	
Motion Seq*	Internal data		Data can be stored as "Motion Seq" to the dedicated area in the User Memory. Example: [PERFORMANCE] \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.

Reference	Performance	Edit	Search	Utility	Live Set
Job (Job Switc Determines whet	ch) ther the Job function is act	tive (On) or not (Off.) V	Vhen this parameter is tur		Sottings
the File/Folder/Co	ontent in "File Select" calls	Is up the menu to selec	ct "Rename" or "Delete."		Settings Sound
	rrently connected USB deve eate a new folder when sto		I to select "Format."		Quick Setup
Settings: Off, On					Audio I/O
					MIDI I/O
Data Utility					Advanced
Data Otinty					System
From the Data Ut	tility display you can contr	rol Files and data in th	e User Memory.		Contents
Operation		· 11006.3			Load
Operation [U	$UTILITY] \rightarrow [Contents] \rightarrow [Da]$.ta Utilityj			Store / Save
Folder List					Data Utility
		Current	Folder Name		Tempo Settings
					Effect Switch
n L	Utility	FX	J 140	• • •	
Settings Lo	oad	> MONT	AGE	Job	
		Des ferrererer			

Page (Page Select)

Switch

Current Folder Name

Job (Job Switch)

Settings: Off, On

Folder Select

• Arp (Arpeggio)

Library
Live Set
Motion Seq
Performance
Song
Waveform

Indicates the Current Folder Name.

up the menu to select "Optimize."

When folders in "Folder Select" are displayed in multiple pages, you will need to use this button to scroll through the pages.

Folder select

Indicates the Content Types in the User Memory as folders. Touching the Folder opens it.

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

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Reference	Performance	Edit		Sear	ch	Utility	_	Live Set
When the s	selected Folder is op Pa		Current F	- older Name	Free Sto	rage	Uitlity	ettings
n t	Utility		FX		J 140			Sound Quick Setup
Settings I	-oad	MONTAGE	> Perform	ance	User Perf			Audio I/O

		LY			· · ·	• 140	====	*
Settings	Load		> MONTAGE	 ➤ Performa	nce	User Perf 1/640		
Contents	Store / Save	Freaky Dancer						
Tempo Settings	Data Utility							
Effect Switch								
		Sort Name↓ Dat	e			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.

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.

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.

MIDI I/O Advanced System Contents Load Store / Save Data Utility Tempo Settings Effect Switch

Reference	Performance		Edit		earch	Utility	Live Set
Tempo Setti	ngs						Uitlity
Operation	Settings display you JTILITY] → [Tempo Se ouch the TEMPO SET	ttings], [SHIFT			o and Synchr	onization.	Settings Sound Quick Setup Audio I/O MIDI I/O
é t	Utility		FX		EMPO SETTIN	G icon	Advanced System Contents
Settings	тетро К 140	Cnob Flash ON		Tap Tempo			Load Store / Save Data Utility
Tempo Settings	Sync M	11DI Sync Internal	MIDI	A/D In	Clock Out ON		Tempo Settings Effect Switch
Effect Switch	Click M	1ode T	Precount Tmeas	Volume 100	Beat	туре т	
	Arpeggio S	off				Click Out MainL&R	

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

Тар Тетро

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.

MIDI Sync

Determines parameters related to MIDI clock and synchronization.

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 or not. **Settings:** Off, On

Reference

Performance

Edit

Search

Live Set

Utility

Mode (Click Mode)	Uitlity
Determines the click sound (metronome) that is used during recording or playback.	Settings
Settings: Off, Rec, Rec/Play, Always	Sound
Off: The click will not sound.	
Rec: The click will sound during Song recording only.	Quick Setup
Rec/Play: The click will sound during Song recording and playback.	Audio I/O
Always: The click will always sound.	MIDI I/O
Precount (Click Pre-count)	Advanced
Determines the number of count-in measures provided before recording actually starts after pressing the	System
[▶] (Play) button while the Song recording.	Contents
Settings: Off (Recording starts as soon as the [▶] (Play) button is pressed), 1meas – 8meas	Load
NOTE Since the click sound is created with the internal tone generator, using click playback affects the overall	Store / Save
polyphony of the instrument.	
Volume (Click Volume)	Data Utility
	Tempo Settings
Determines the click sound volume. Settings: 0 - 127	Effect Switch

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, AsgnL&R, USB1&2...USB29&30, AsgnL, AsgnR, USB1...USB30
MainL&R: Outputs in stereo (two channels) to the OUTPUT [L/MONO]/[R] jacks.
AsgnL&R: Outputs in stereo (two channels) to the ASSIGNABLE OUTPUT [L]/[R] jacks.
USB1&2...USB29&30: Outputs in stereo (Channels 1&2 – 29&30) to the [USB TO HOST] terminal.
AsgnL: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [L] jack.
AsgnR: Outputs in mono (one channel) to the ASSIGNABLE OUTPUT [R] jack.
USB1 – 30: Outputs in mono (Channels 1 – 30) to the [USB TO HOST] terminal.

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] or Operation MIDI I/O Touch the EFFECT icon Advanced EFFECT icon System Contents J 140 Ö Utility FΧ A Load Store / Save **Data Utility** Insertion FX **Tempo Settings** Effect Switch Settings

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. **Settings:** Off, On

Search

Utility

Live Set

Live Set

Live Set

Edit

Register

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.

Press the [LIVE SET] button, or Touch the LIVE SET icon

Performance List LIVE SET ico							
n t Live Set			FX		J 125	٥	
Bank Preset	~	Page Best of MO	NTAGE 1		~		
CFX + FM EP A.PIANO CFX+FM EP		d Wane w/ Auto SK	Pearly Gates CHILL OUT Style ARP		DJ Montage DANCE Style ARP		
Rd 1 Gallery E.PIANO RD	Ocean Pad SYN PAD		FM Sweeping Poly SYN PAD		Tektonic Dub DANCE Style ARP		
Wr Gallery E.PIANO WR	Seattle Sections		FM Linear Synth SYN PAD		Particles in Space		
All 9 Bars! ORGAN	8 Amps and a TC E.GUITAR Clean		Multi Saw MW DA		Turn It On SYN COMP w/ M.SEQ		
Category Search DANCE Style ARP							

Current Performance Name

Current Slot Name

Performance Attribute

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 161).

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.

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

Performance List						
n L Edit - Live Set	FX 🚛 🗠 J 125 📰 🔅					
Bank (T) User 1	Page [7] Live Set Page 1 Done					
DJ Montage						
RUN24EINX ISSS						
Slot Name	T] Performance Color Volume Swap Copy					
Delete	DJ Montage Green 80					

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 S	Switch)				Live Set
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					Live Set
					Edit
		Register			
Copy (Copy Solution Determines whe	Switch) ether the Copy function is t	turned on or off. You ca	an copy the setting to an	other Slot.	

■ When an empty Slot is selected

Settings: Off, On

💼 主 Edit - Live Set		FX IIII 🚓	J 125 🗰 🔅
Bank [7] User 1	✓ Page Live Set Page	ge 1	[T] V Done
DJ Montage			
RUM2+FMX SSS			
Add			

Add

Touching this button allows you to register the selected Performance in the Slot.

Reference

Live Set Register (Register)

Performance

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.

Edit

Operation	[SHIFT] + [LIVE SET] (from any operation displays, other than Live Set)
oporation	

	Select						
n t Register - Live Set				FX	 J 140		¢.
Bank User 1	~	Page Live	e Set Pa	ge 1		~	
DJ Montage	Freaky	Dancer					
NUN2+FM-X LSSS		AMWS					

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



Search

Live Set

Live Set

Live Set	
Edit	
Register	

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 MONTAGE 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/

Yamaha Web Site (English only) http://www.yamahasynth.com/

Yamaha Downloads http://download.yamaha.com/

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