Supplementary Manual

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New Functions in MONTAGE Version 3.50

Yamaha has upgraded the MONTAGE firmware, adding the following new functions. This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

• New Performances have been added.
• The Smart Morph function has been added.
• New functions have been added to the Pattern Sequencer.
• MODX files can now be imported.
• Controllability and playability have been improved.
Additional New Performances

The MONTAGE offers 32 new Performances. For information on the added Performances, refer to the Data List.
New Smart Morph function

The Smart Morph function uses machine learning for morphing FM-X sounds. MONTAGE learns the sounds assigned to Parts 9 to 16 by sophisticated logic and plots each sound as a point on the Map. The distance of points indicates similarity of the sounds. This function automatically creates interpolated FM-X sounds to fill in the gaps on the map.

Touch a position on the map to assign the sound to Part 1. By selecting points you like in this way and saving the results, you can use this as a powerful tool for creating new FM-X sounds. You can also drag points on the map, or assign the behavior between any two points to the Super Knob—giving you unprecedented real-time control for expressively morphing the FM-X sound as you perform.

Home

Operation [PERFORMANCE] → [Home]

View

Use this to switch among three displays: the default screen display of eight Parts, a display of four Parts with various data, and a display of four Parts and the Smart Morph map.

NOTE You can also use the [PERFORMANCE] button for the same operation.
NOTE When the current View is the Smart Morph display and the Performance does not yet have Smart Morph data, four Parts with various data is shown.

NOTE On the Live Set display, a special FM-X icon indicates if the assigned Performance has Smart Morph data or not.

- Displayed for a Performance with an FM-X Part.
- Displayed for a Performance with an FM-X Part and Smart Morph data.
**Smart Morph**

**Play**

**Operation** [PERFORMANCE] → [Smart Morph] → [Play]

On this display, tap the Smart Morph map to change the FM-X sound for Part 1.

**Edit**

**Operation** [PERFORMANCE] → [Smart Morph] → [Edit]

**Part not in use**
Calls up the Part Category Search display for selecting an FM-X sound when you tap one of the plus (+) buttons.

**Part in use**
Calls up the context menu (Category Search, Edit, Copy, Delete) when you tap this.
Display
Determines whether each Part is indicated by its Main Category or by its Part Name.

Learn
Begins learning (map creation) by tapping. During processing, some interface operations are disabled and the [Cancel] button is shown in place of [Learn]. If you cancel processing, the map will return to its status before learning. You can also play the instrument during the learning operation.

ETA (Estimated Time of Action)
Displays the estimated time remaining for the learning operation.

Undo/Redo
After operating the learning function, the [Undo] button is shown at the upper right. Press Undo to cancel your edits and return the map to its pre-learning state. After you use Undo, [Redo] is shown, letting you restore the edits you’ve made.

Analyze

Operation
[PERFORMANCE] \(\rightarrow\) [Smart Morph] \(\rightarrow\) [Analyze]
Red
Displays the size of the value for the selected parameter as a shade of red. For setting values, refer to “Parameters that can be set for Red, Green, and Blue” (page 10).

Green
Displays the size of the value for the selected parameter as a shade of green. For setting values, refer to “Parameters that can be set for Red, Green, and Blue” (page 10).

Blue
Displays the size of the value for the selected parameter as a shade of blue. For setting values, refer to “Parameters that can be set for Red, Green, and Blue” (page 10).

ETA (Estimated Time of Action)
Displays the estimated time remaining for the learning operation.

Coloring
Resets Red, Green, and Blue automatically when Learn is executed, if this is set to Auto. If this is set to Manual, then Red, Green, and Blue are not automatically reset when Learn is executed.
Settings: Auto, Manual

Learn
Begins learning (map creation) when you tap this. During processing, some interface operations are disabled and the [Cancel] button is shown in place of [Learn]. If you cancel processing, the map will return to the pre-learning status.

Undo/Redo
After operating the learning function, the [Undo] button is shown at the upper right. Press Undo to cancel your edits and return the map to its pre-learning state. After you use Undo, [Redo] is shown, letting you restore the edits you’ve made.
Parameters that can be set for Red, Green, and Blue

### FM Common

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<th>Display Name</th>
<th>Parameter Name</th>
<th>Display Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random Pan Depth</td>
<td>Random Pan</td>
<td>Filter Cutoff Key Follow Sensitivity</td>
<td>Cutoff/Key</td>
</tr>
<tr>
<td>Alternate Pan Depth</td>
<td>Alternate Pan</td>
<td>Filter Cutoff Scaling Break Point 1</td>
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</tr>
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<td>Scaling Pan Depth</td>
<td>Scaling Pan</td>
<td>Filter Cutoff Scaling Break Point 2</td>
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<tr>
<td>Key On Delay Time Length</td>
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<td>Filter Cutoff Scaling Break Point 3</td>
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<tr>
<td>Key On Delay Tempo Sync Switch</td>
<td>KeyOnDly Sync</td>
<td>Filter Cutoff Scaling Break Point 4</td>
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<tr>
<td>Pitch Velocity Sensitivity</td>
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<td>Filter Cutoff Scaling Offset 1</td>
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<tr>
<td>Random Pitch Depth</td>
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<td>Filter Cutoff Scaling Offset 2</td>
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<tr>
<td>Pitch Key Follow Sensitivity</td>
<td>Pitch/Key</td>
<td>Filter Cutoff Scaling Offset 3</td>
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</tr>
<tr>
<td>Pitch Key Follow Sensitivity</td>
<td>Pitch/Key</td>
<td>Filter Cutoff Scaling Offset 4</td>
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<td>Filter Type</td>
<td>Filter Type</td>
<td>HPF Cutoff Key Follow Sensitivity</td>
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<td>Filter Cutoff Frequency</td>
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<td>PEG Attack Time</td>
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<tr>
<td>Filter Cutoff Velocity</td>
<td>Cutoff/Vel</td>
<td>PEG Decay 1 Time</td>
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<td>Filter Cutoff Velocity</td>
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<td>PEG Decay 2 Time</td>
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<tr>
<td>Filter Resonance/Width</td>
<td>Res/Vel</td>
<td>PEG Release Time</td>
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<td>HPF Cutoff Frequency</td>
<td>HPF Cutoff</td>
<td>PEG Initial Level</td>
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<td>PEG Attack Level</td>
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<td>Filter Gain</td>
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<td>PEG Decay 1 Level</td>
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<td>FEG Attack Time</td>
<td>FEG Attack Tm</td>
<td>PEG Release Level</td>
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<td>FEG Decay 1 Time</td>
<td>FEG Decay 1 Tm</td>
<td>PEG Depth Velocity Sensitivity</td>
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<td>FEG Decay 2 Time</td>
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<tr>
<td>FEG Release Time</td>
<td>FEG Release Tm</td>
<td>PEG Time Key Follow Sensitivity</td>
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<td>FEG Release Level</td>
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<td>2nd LFO Key On Reset</td>
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<td>FEG Depth</td>
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<td>2nd LFO Pitch Modulation Depth</td>
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<td>FEG Time Velocity Sensitivity</td>
<td>FEG Segment</td>
<td>2nd LFO Amplitude Modulation Depth</td>
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<td>FEG Time/Vel</td>
<td>2nd LFO Filter Modulation Depth</td>
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### FM Operator (op1 – op8)

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<th>Parameter Name</th>
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<td>PEG Decay(Pitch) Modulation Depth Offset</td>
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<td>Pitch/Controller</td>
<td>Level Controller Sensitivity</td>
<td>Level/Controller</td>
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</table>

MONTAGE Supplementary Manual
Super Knob

**Operation**

[PERFORMANCE] → [Smart Morph] → [Super Knob]

---

**Super Knob Link**

Adds an effect to the Super Knob from start to end when this is set to ON.

**Settings:** On, Off

**Start**

Determines the position on the map corresponding to the minimum value of the Super Knob. With the cursor on Start, touch the map to set the start position.

**End**

Determines the position on the map corresponding to the maximum value of the Super Knob. With the cursor on End, touch the map to set the end position.
Load Smart Morph
Opens the Load display. Select another Performance on the Load display to load the Smart Morph data contained in that Performance to the current Performance.

Delete Smart Morph
Deletes the Smart Morph data contained in the current Performance.

Delete Part 9 – 16
Sets Part 9 to Part 16 to unused status all at once.
When Parts 9 – 16 are set to unused status, SSS is enabled.
Smart Morph uses Parts 9 – 16 for making a map. However, deleting Parts 9 – 16 has no effect on the sound of Part 1, making it unnecessary to edit the map again.
Additional Pattern functions

### Play/Rec

#### Pattern

**■ Recording, Playing**

You can now select a sound on the Part Category Search display while recording Patterns.

**Operation**

[PERFORMANCE] → [Play/Rec] → [Pattern] → [●] (Record) button → [▶] (Play) button → Touch the Part name → Select [Category Search] from the displayed menu

**NOTE**

You can now perform the same operation for overdubbing MIDI songs as well.

**■ Overdubbing**

You can now use real-time overdubbing to record your Controller actions while deleting previous Controller events. This makes it easier to perform overdubbing using the Controller.

**Operation**

[PERFORMANCE] → [Play/Rec] → [Pattern] → (indicated Pattern has been recorded already) → [●] (Record) button → Touch [Record Type] → Select [Overdub] from the displayed menu → [▶] (Play) button

**NOTE**

You can now perform the same operation for overdubbing MIDI songs as well.
**Song/Event**

**Get Phrase**

On the Get Phrase display, you can now specify “All” for the source and destination Tracks.

**Operation**

[▶] (Play) button or [PERFORMANCE] ➔ [Play/Rec] ➔ [Pattern] ➔ [Edit/Job] ➔ [Song/Event] ➔ [Get Phrase]

**Track *1 Source**

Determines the Track to get (copy).

**Track *2 Destination**

Determines the copy destination Track.

**Erase Event**

You can now delete MIDI events in a Pattern according to event type along with specifying the range (Measure, Beat and Clock).

**Operation**

[▶] (Play) button or [PERFORMANCE] ➔ [Play/Rec] ➔ [Pattern] ➔ [Edit/Job] ➔ [Song/Event] ➔ [Erase Event]
**Track**
Determines the Track to be erased.

**Scene**
Determines the Scene to be erased.

**Start Measure**
Determines the starting measure position at which the Job is applied.

**Start Beat**
Determines the starting beat position at which the Job is applied.

**Start Clock**
Determines the starting clock position at which the Job is applied.

**End Measure**
Determines the ending measure position at which the Job is applied.

**End Beat**
Determines the ending beat position at which the Job is applied.

**End Clock**
Determines the ending clock position at which the Job is applied.

**Auto Select**
When turned on, this enables you to determine the type of Event to be erased using panel controls, such as the Pitch Bend wheel or Knob.

**Event Type**
Determines the type of Event to be erased.

**CC Number (Control Change Number)**
Displayed when the Event type is set to CC. Determines the Control Change Number to be erased.

**System Exclusive**
Displayed when the Event type is set to SysEx. Determines the System Exclusive to be erased.

**NOTE**
- When Common parameters and Super Knob are specified, the System Exclusive is deleted irrespective of the Track settings.
You can now specify applicable Scenes when Normalize Play FX is executed.

**Operation**  
[▶ ] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Play FX]

**Scene**  
Determines the Scene to which the Job is to be applied.  
**Range:** All, 1 – 8
User interface enhancements for Patterns

- **Addition of the Pattern Chain Switch**
  You can now store Chain playback settings for each pattern on the Pattern display and Chain display.

  **Operation**
  
  | 3-Go (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] |

**Chain**
Determines whether Chain playback can be used outside the Chain display or not.

**Settings:** Off, On

**NOTE** If a Pattern for which Chain is set to on is assigned to a Slot on the Live Set display, the PTN icon changes to PTN CHAIN.

- **PTN**: Displayed for slots having a Pattern.
- **PTN CHAIN**: Displayed for slots having a Pattern for which Chain is ON.
**Icon display in Chain Playback Position**

An icon is now shown beside the Scene in playback on the Chain display.

**Operation**  
[PERFORMANCE] → [Play/Rec] → [Pattern] or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Chain]

![Pattern display showing icons]

**Addition of Undo/Redo**

You can now use Undo/Redo for Jobs on each display.

**Operation**  
[PERFORMANCE] → [Play/Rec] → [Pattern] or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → respective displays

![Pattern display with undo/redo options]

* This function operates over several displays. The Copy display is used here as an example.

**Undo**

Cancels the most recently made change and restores the state prior to the most recent change. This is available only when a sequence already exists and you have performed some operation.

**Redo**

Restores the change canceled by Undo. Redo is available only after using Undo.
Importing of MODX files

You can now load "X8U" and "X8L" MODX files.

NOTE  You cannot load "X8A" MODX backup files.
Improved Controllability

**Signal Flow shortcuts**
You can now call up the Audio I/O display by tapping near USB Volume in the Audio Signal Flow. The cursor jumps automatically to USB Volume on the Audio I/O display.

![Operation](image)

You can now call up the USB Monitor display by tapping near Monitor Volume in the Audio Signal Flow. The cursor jumps automatically to Main on the USB Monitor display.

![Operation](image)
You can now turn Local Control on and off by tapping near the Local Control switch in the MIDI Signal Flow.

**Operation**

[Utility] → [Settings] → [MIDI I/O]

![MIDI Signal Flow diagram]

**Using the footswitch to set the Tempo**

Tap Tempo was added to the Footswitch Assign Control Number setting, allowing you to conveniently set the tempo by using the footswitch.

**Operation**

[Utility] → [Settings] → [MIDI I/O]

![MIDI Signal Flow diagram]

**FS Assign (Footswitch Assign Control Number)**

This sets the Control Change Number used by a foot switch connected to the FOOT SWITCH [ASSIGNABLE] jack. Even when the instrument receives MIDI messages with the same Control Change Number specified here from external MIDI equipment, the MONTAGE assumes that the message was generated by using the footswitch.

**Settings:** Off, 1 – 95, Arp SW, MS SW, Play/Stop, Live Set+, Live Set-, Oct Reset, Tap Tempo
Setting for Part Name display after startup
You can now set the display status of the Type and Name switches that are shown after the MONTAGE is started up.

**Operation** [Utility] → [Settings] → [System]

![MONTAGE UI showing Part Display settings]

**Part Display**
Determines what is automatically shown in the Part Display when the MONTAGE is started up: Category and Part Types (Type) or Part names (Name).

**Settings:** Type, Name

Specification changes for Note Limit when a WAVE file or AIFF file is loaded with Key assignment
Specifications have been changed so that the initial value for the note limit range is C-2 to G8 when a WAVE file or AIFF file is loaded with Drum Part Key or AWM2 Part Element set to Key.

**MONTAGE Connect supports Patterns**
MONTAGE Connect can now handle Patterns. For details, refer to the MONTAGE Connect Owner’s Manual.

Other

**Improved Pitch Bend Resolution**
The Pitch Bend Resolution has been improved so that you can now control the pitch in even greater detail.
New Functions in MONTAGE Version 3.00

Yamaha has upgraded the MONTAGE firmware, adding the following new functions. This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

• New effect types have been added.
• New Performances have been added.
• The Pattern Sequencer function has been added.
• The Rhythm Pattern function has been added.
• You can now play songs, patterns and audio files from the Live Set display.
• Super Knob Link has been added to the data that is recorded in the Scene function.
• Keyboard Control has been added to the data that is recorded in the Scene function.
• Increased the range of the LFO Speed parameter.
• You can now connect MIDI equipment via the USB TO DEVICE terminal.
• The Global Micro Tuning settings have been added.
• The Audition Loop setting has been added.
• Improvements have been made to the user interface.
• The Note capacity (total area in Store) has been increased from 130,000 to 520,000 (for Songs) and 520,000 (for Patterns).
## Additional New Effect types

The following new Effect types have been added in the Misc Category.

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<th>Effect type</th>
<th>Description</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCM Mini Filter</td>
<td>Makes the sound “fatter” and tighter.</td>
<td>Cutoff</td>
<td>Determines the Cutoff Frequency of the Filter.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resonance</td>
<td>Determines the Resonance of the filter.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type</td>
<td>Determines the type of the filter.</td>
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<tr>
<td></td>
<td></td>
<td>Texture</td>
<td>Adds various changes to the texture of the sound effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Input Level</td>
<td>Determines the input level of the signal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dry/Wet</td>
<td>Determines the balance of the dry sound and the effect sound.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Output Level</td>
<td>Determines the level of the signal output from the effect block.</td>
</tr>
<tr>
<td>VCM Mini Booster</td>
<td>Creates a unique sonic texture.</td>
<td>EQ Frequency</td>
<td>Determines the Frequency of the EQ.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Resonance</td>
<td>Determines the Resonance of the EQ.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EQ Gain</td>
<td>Determines the level gain of the EQ.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type</td>
<td>Determines the type of the booster effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Texture</td>
<td>Adds various changes to the texture of the sound effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Input Level</td>
<td>Determines the input level of the signal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Output Level</td>
<td>Determines the level of the signal output from the effect block.</td>
</tr>
<tr>
<td>Wave Folder</td>
<td>Makes various changes to the sound over time by varying and controlling the harmonic content.</td>
<td>Fold</td>
<td>Determines the degree of the distortion effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fold Type</td>
<td>Determines the sonic texture of the distortion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LFO Depth</td>
<td>Determines the depth of the modulation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LFO Speed</td>
<td>Determines the frequency of the modulation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LFO Shape</td>
<td>Alters the wave shape for modulation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Input Level</td>
<td>Determines the input level of the signal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dry/Wet</td>
<td>Determines the balance of the dry sound and the effect sound.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Output Level</td>
<td>Determines the level of the signal output from the effect block.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEQ Depth</td>
<td>Determines the depth of the built-in sequencer in the effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEQ Clock</td>
<td>Determines the speed of the built-in sequencer in the effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEQ Pattern</td>
<td>Selects the pattern of the built-in sequencer in the effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEQ Variation</td>
<td>Changes the motion of the built-in sequencer in the effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SEQ Ph Reset</td>
<td>Sets the mode for resetting the pattern of the built-in sequencer in the effect.</td>
</tr>
</tbody>
</table>
Additional New Performances

The MONTAGE offers 52 new Performances.
For information on the added Performances, refer to the Data List.
New Pattern Sequencer function

This new function lets you record pattern sequences to each Scene.

- **Play/Rec**

- **Pattern**

  - **Playback/Waiting for Playback**

    - **Operation** [PERFORMANCE] → [Play/Rec] → [Pattern]

    - **Pattern Name**
      Indicates the selected pattern name. Touching the parameter calls up the menu to Load, Rename and create a New Pattern.

    - **Link icon**
      Indicates that the Pattern data and Performance data contained in the Pattern data match. When the Pattern data and Performance data contained in the Pattern data do not match, a broken Link icon is shown.

    - **Performance Name**
      Indicates the selected performance name.
      - **NOTE** When you change the parameters in Performance, a blue flag indication appears at the right side of the Performance Name.

    - **Time Signature**
      Indicates the meter of the Pattern.

    - **Position**
      Indicates the starting position of Recording/Playback. The indicator also shows the current position during playback. The measure number is in the left cell and the beat number and clock value are in the right cell.

    - **Tempo**
      Determines the tempo to playback the Pattern.
      - **Range:** 5 – 300

    - **Click Settings**
      Opens the Tempo Settings display.

    - **Scene**
      Indicates the selected scene number.
Length
Determines the length of the entire sequence in the selected Scene.
Range: 1 – 256

Key On Start
Determines whether or not recording or playback of the Pattern starts when you play the keyboard.
Settings: Off, On

Store Pattern & Perf Settings
Stores the edited pattern data and the link to the selected Performance.
NOTE After you've edited parameters in the Performance, you will need to Store the Performance data.

Edit/Job
Opens the display for editing the pattern and related jobs.

## Waiting for New Recording

**Operation** [PERFORMANCE] → [Play/Rec] → [Pattern] → [●] (Record) button

### Time Signature
Determines the meter/time signature of the Scene.
Settings: 1/16 – 16/16, 1/8 – 16/8, 1/4 – 8/4

### Rec 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: 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)

### Loop
When Loop is set to On, recording does not stop at the end of the Pattern, but continues in a “loop” by returning to the top of the pattern.
Settings: Off, On

**NOTE** To temporarily disengage the record mode and enter the Rehearsal mode, simply press the [●] (Record) button during realtime recording. The [●] (Record) indicator flashes and playback will continue uninterrupted, but no data will be recorded. This convenient Rehearsal mode feature lets you easily and temporarily disable recording in order to practice a Part or try out various ideas (while listening to the other tracks) without actually recording. To return to the record mode press the [●] (Record) button again so that the [●] (Record) indicator lights continuously.
## Recording

**Operation**

[PERFORMANCE] → [Play/Rec] → [Pattern] → ● (Record) button → ► (Play) button

**Hold [SHIFT] + key to erase**

You can delete specific note events by pressing the [SHIFT] button and playing the keys corresponding to the notes you want to delete.

### Re-recording

**Operation**

[PERFORMANCE] → [Play/Rec] → [Pattern] → (indicated Pattern has been recorded already) → ● (Record) button → ► (Play) button

**Record Type**

Determines whether a pattern will be replaced or overdubbed when recording.

**Settings:** Replace, Overdub
Overview

**Operation**

[►] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job]

---

**Type**

Touching this button changes the Part’s displayed text to Main Category and Sub Category. This button is synchronized with the corresponding button on the Play/Rec display. Changing one changes the other.

**Name**

Touching this button changes the Part’s displayed text to Part Name. This button is synchronized with the corresponding button on the Play/Rec display. Changing one changes the other.

**Scene**

Indicates the selected scene number.

**Undo**

Cancels the most recently made changes and restores to the state prior to the last changes. This job is available only when a recorded sequence already exists and you have performed some job on the sequence data.

**Redo**

Restores the changes performed by Undo. Redo is available only after using Undo.

**Save As .mid File**

Opens the Store/Save display. You can save the selected Scene’s sequence as a MIDI file.

**Load .mid File**

Opens the Load display for loading MIDI files. You can select the Pattern and Scene to load after you have selected a MIDI file.

**Length**

Indicates the length of the entire sequence in the selected Scene.

**Position**

Shows the current position during Scene playback, and lets you set the starting position of playback.

**Range:** 001 – 256
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.

**Operation**

![Operation](Operation.png)

- **Track**: Determines the track to which the Job is applied.
- **Scene**: Determines the scene to which the Job is applied.
- **Start Measure**: Determines the starting measure position at which the Job is applied. **Range**: 001 – 257
- **Start Beat**: Determines the starting beat position at which the Job is applied. **Settings**: Depends on selected Time Signature
- **Start Clock**: Determines the starting Clock position at which the Job is applied. **Settings**: Depends on selected Time Signature
- **End Measure**: Determines the ending measure position at which the Job is applied. **Range**: 001 – 257
- **End Beat**: Determines the ending beat position at which the Job is applied. **Settings**: Depends on selected Time Signature
- **End Clock**: Determines the ending Clock position at which the Job is applied. **Settings**: Depends on selected Time Signature
- **Quantize (Resolution)**: Determines to what beats the note data in the specified track will be aligned. **Settings**: 32nd note, 16th note triplet, 16th note, 8th note triplet, 8th note, 1/4 note triplet, 1/4 note, 16th note + 16th note triplet, 8th note + 8th note triplet
**Strength**
Sets the degree or “magnetic strength” to which Quantize is applied. A setting of 100% produces exact timing. A setting of 0% results in no quantization.

**Range:** 0% – 100%

**Swing Rate**
This selectively delays the notes on even-numbered beats (backbeats) to produce a swing feel. For example, if the meter is 4/4 and the Quantize value is quarter notes, the 2nd and 4th beats of the measure will be delayed.

**Settings:**
- Depends on specified Quantize value
  - If the Quantize value is 1/4 note, 8th note, 16th note, 32nd note: 0 – half of the triplet grid
  - If the Quantize value is 1/4 note triplet, 8th note triplet, 16th note triplet: 0 – half of the triplet grid
  - If the Quantize value is 8th note + 8th note triplet, 16th note + 16th note triplet: 0 – half of the triplet grid

**Gate Time**
Determines the gate time (the length of time a note sounds) of the even-numbered backbeat notes for enhancing the swing feel.

**Range:** 0% – 200%

**Execute**
Executes the Job on the MIDI sequence data.

**Velocity**
This Job alters the velocity values of a specified range of notes, letting you selectively boost or cut the volume of those notes.

**NOTE** Velocity changes are calculated as follows

\[
\text{Adjusted Velocity} = (\text{Original Velocity} \times \text{Rate}) + \text{Offset}
\]

If the result is 0 or less, the value is set to 1. If the result is higher than 127, the value is set to 127.

**Operation**

1. (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Note] → [Velocity]

**Set All**
Sets the velocities of all target notes to the same fixed value. When set to “Off,” the Set All parameter has no effect. When set to a value other than “Off,” the Rate and Offset parameters are unavailable.

**Range:** Off, 001 – 127

**Rate**
Determines the percentage by which the target notes will be shifted from their original velocities. Range below 100% reduce the velocities, and Range above 100% increase the velocities proportionately. When the Set All parameter is set to something other than “Off,” this parameter cannot be changed.

**Range:** 0% – 200%
Offset
Adds a fixed value to the Rate-adjusted velocity values. A setting of 0 produces no change. Range below 0 reduce the velocities, and Range above 0 increase the velocities. When the Set All parameter is set to something other than “Off,” this parameter cannot be changed.
Range: -127 – +127

Execute
Executes the Job to the MIDI sequence data.

Gate Time
This Job alters the gate times of a specified range of notes.

NOTE
Gate time changes are calculated as follows:

Adjusted Gate Time = (Original Gate Time x Rate) + Offset
If the result is 0 or less, the value is rounded off to 1.

Operation
[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Note] → [Gate Time]

Set All
Sets the gate times of all target notes to the same fixed value. When set to “Off,” the Set All parameter has no effect. When set to a value other than “Off,” the Rate and Offset parameters are unavailable.
Range: Off (0), 001 – 9999

Rate
Determines the percentage by which the gate time of the target notes will be changed. Range below 100% shorten the notes, and Range above 100% lengthen the notes proportionately. When the Set All parameter is set to something other than “Off,” this parameter cannot be changed.
Range: 0% – 200%

Offset
Adds a fixed value to the Rate-adjusted gate time values. A setting of 0 produces no change. Range below 0 shorten the gate time, and Range above 0 lengthen the gate time. When the Set All parameter is set to something other than “Off,” this parameter cannot be changed.
Range: -9999 – +9999

Execute
Executes the Job to the MIDI sequence data.
Cresc. (Crescendo)

This Job lets you create a crescendo or decrescendo over a specified range of notes. (Crescendo is a gradual increase in volume, and decrescendo is a gradual decrease.)

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Note] → [Cresc.]

**Velocity Range**

Determines the intensity of the crescendo or decrescendo. The velocity values of the notes in the specified range are gradually increased or decreased starting at the first note in the range. The velocity of the last note in the range becomes the original velocity of the note plus the Velocity Range value. If the resultant velocity is outside the 1 – 127 range, it is set to 1 or 127 accordingly. Range greater than 0 produce a crescendo, and Range less than 0 produce a decrescendo. A setting of 0 produces no effect.

**Range:** -127 – +127

**Execute**

Executes the Job to the MIDI sequence data.
## Transpose

This Job lets you change the key or pitch of the notes in the specified range.

**NOTE** When you execute this Job and change notes outside the allowed range of C-2 – G8, the notes are automatically set to the octave below (or above).

### Operation

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Note] → [Transpose]

### Note

Determines the range of notes over which the Job is applied. You can set the Note directly from the Keyboard by touching the [Keyboard] button.

**Range:** C-2 – G8

### Transpose

Transposes notes in the specified range (in semitones). A setting of +12 transposes up one octave, while a setting of -12 transposes down an octave. A setting of 0 produces no change.

**Range:** -127 – +127

### Execute

Executes the Job on the MIDI sequence data.
Roll

This Job creates a series of repeated notes (like a drum roll) over the specified range.

**Operation**  
[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Note] → [Roll]

### Start Step
Determines the size of the step (i.e., the number of clocks) between each note in the roll. You can create subdivided rolls by setting small values between Start Step and End Step. This corresponds to the first clock value in the range that you specified.

**Range:** 015 – 999

### End Step
Determines the size of the step (i.e., the number of clocks) between each note in the roll. You can create subdivided rolls by setting small values between Start Step and End Step. This corresponds to the last clock value in the range that you specified.

**Range:** 015 – 999

### Note
Determines the note pitches over which the Job is applied. You can set the Note directly from the Keyboard by touching the [Keyboard] button.

**Range:** C-2 – G8

### Start Velocity
Determines the velocity of the notes in the roll. This is the first Velocity value in the range that you specified.

**Range:** 001 – 127

### End Velocity
Determines the velocity of the notes in the roll. This is the last Velocity value in the range that you specified.

**Settings:** 001 – 127  
*NOTE* Determining the Start Velocity and End Velocity lets you create rolls that gradually increase or decrease in volume (crescendo/decrescendo).

### Execute
Executes the Job on the MIDI sequence data.
**Track**

**Copy**

This Job copies all data from a specified source track to the specified destination track.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Track] → [Copy]

- **Pattern Name** *1 Source
  Determines the source Pattern.

- **Track** *1 Source
  Determines the source Track.

- **Scene** *1 Source
  Determines the source Scene.

- **Pattern Name** *2 Destination
  Determines the destination Pattern.

- **Track** *2 Destination
  Determines the destination Track.

- **Scene** *2 Destination
  Determines the destination Scene.

- **Copy Track**
  Executes the Copy Job.

**NOTE**
When you execute Copy Track with Track set to All and Scene set to All, Chain data (page 48) is copied automatically.
**Exchange**

This Job swaps all data from one specified track to another specified track and vice versa.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Track] → [Exchange]

![Pattern Name](Pattern)  
Determines one of the Patterns for data exchange.

**Track**  
Determines the Track to exchange.

**Scene**  
Determines the Scene to exchange.

**Pattern Name**  
Determines the other Pattern for data exchange.

**Track**  
Determines the Track to exchange.

**Scene**  
Determines the Scene to exchange.

**Exchange Track**  
Executes the exchange job.

**NOTE**  
When you execute Exchange Track with Track set to All and Scene set to All, Chain data (page 48) is copied automatically.
This Job mixes all data from two selected tracks ("A" and "B"), and places the result in track B.

**Operation**

[►] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Track] → [Mix]

**Pattern Name** *1 Source A
Determines the source for Pattern A.

**Track** *1 Source A
Determines the Track to mix.

**Scene** *1 Source A
Determines the Scene to mix.

**Pattern Name** *2 Source B
Determines the source for Pattern B.

**Track** *2 Source B
Determines the Track to mix.

**Scene** *2 Source B
Determines the Scene to mix.

**Pattern Name** *3 Destination B
Indicates the destination Pattern.

**Track** *3 Destination B
Indicates the destination Track.

**Scene** *3 Destination B
Indicates the destination Scene.

**Mix Track**
Executes the mix job.
Append

This Job adds all data from a specified source track to the end of a specified destination track.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Track] → [Append]

**Pattern Name** *1 Source
Determines the source Pattern.

**Track** *1 Source
Determines the source Track.

**Scene** *1 Source
Determines the source Scene.

**Pattern Name** *2 Destination
Determines the destination Pattern.

**Track** *2 Destination
Determines the destination Track.

**Scene** *2 Destination
Determines the destination Scene.

**Append Track**
Executes the append job.
**Split**

This Job moves the latter half of data divided at a specified measure from a specified source track to the specified destination track.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Track] → [Split]

---

**Pattern Name** *1 Source
Determines the source Pattern.

**Track** *1 Source
Determines the source Track.

**Scene** *1 Source
Determines the source Scene.

**Measure** *1 Source
Determines the measure at which the data is divided.

**Pattern Name**
Indicates the destination Pattern.

**Track**
Indicates the destination Track.

**Scene**
Indicates the destination Scene.

**Pattern Name** *2 Destination
Determines the destination Pattern.

**Track** *2 Destination
Determines the destination Track.

**Scene** *2 Destination
Determines the destination Scene.

**Split Track**
Executes the split job.
**Clear**

This Job clears all data from a specified track.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Track] → [Clear]

![Pattern Name](Pattern.png)

**Pattern Name**

Determines the Pattern to clear.

**Track**

Determines the Track to clear.

**Scene**

Determines the Scene to clear.

**Clear Track**

Executes the Clear job.

**NOTE**  When you execute Clear Track with Track set to All and Scene set to All, Chain data (page 48) is deleted too.
Divide Drum Tr (Divide Drum Track)

This Job allows you to separate drum note data from a specified track. This separates the note events in a drum track assigned to a specified track, and places the notes corresponding to different drum instruments in separate tracks (Tracks 9 – 16).

**NOTE** The data previously existing on Tracks 9 – 16 and Parts 9 – 16 are replaced when you execute Divide Drum Tr. You cannot Undo this edit.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Track] → [Divide Drum Tr]

---

**Pattern Name**
Determine the Pattern containing the drum track to be divided.

**Track**
Determines the Track for which the drum note data will be separated.

**Divide Drum Track**
Executes the Divide Job.
This Job copies specified data from a specified source Song to a specified destination track.  

**NOTE** The data previously existing on the specified destination track is replaced when you execute Get Phrase.

---

**Operation**

[Play] button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Song] → [Get Phrase]

---

### Song

**Get Phrase**

Determines the source Song.

**Track** *(Source)*

Determines the source track.

**Start Measure**

Determines the starting measure position at which the Job is applied.  

**Range:** 001 – 998

**End Measure**

Determines the ending measure position at which the Job is applied.  

**Range:** 002 – 999

**Pattern Name**

Determines the destination Pattern.

**Track** *(Destination)*

Determines the destination Track.

**Scene**

Determines the destination Scene.

**Get Phrase from Song**

Executes the copy job.
Put Phrase

This Job copies all data from a specified source Pattern to a specified measure on the destination Song.

**NOTE** The specified source Pattern is merged into previously existing data on the specified destination Song when you execute Put Phrase.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Song] → [Put Phrase]

---

**Pattern Name**
Determines the source Pattern.

**Track**
Determines the source track.

**Scene**
Determines the source Scene.

**Song Name**
Determines the destination Pattern.

**Track ** *Destination*
Determines the destination track.

**Measure**
Determines the measure position at which the Job is applied.

*Range*: 001 – 999

**Put Phrase to Song**
Executes the Copy Job.
**User Arp (User Arpeggio)**

This Job copies data in the specified measures of a track for creating Arpeggio data.

**NOTE** The previously existing data on the specified destination track is replaced when you execute User Arp.

**Operation**

[►] (Play) button or [PERFORMANCE] ➔ [Play/Rec] ➔ [Pattern] ➔ [Edit/Job] ➔ [User Arp]

<table>
<thead>
<tr>
<th>Scene</th>
<th>Determines the source Scene.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range: 1 – 8</td>
<td></td>
</tr>
</tbody>
</table>

**Start Measure**
Determines the starting measure position at which the Job is applied.

**Range:** 1 – 256

**End Measure**
Determines the ending measure position at which the Job is applied.

**Range:** 2 – 257

**Arp (Arpeggio Number)**
Indicates the number of the Arpeggio Type.

**Category**
Indicates the Main Category that the selected Arpeggio Type will be assigned to.

**Settings:** For the Arpeggio Type Category list, refer to the Reference Manual.

**Sub Category**
Indicates the Sub Category that the selected Arpeggio Type will be assigned to.

**Settings:** For the Arpeggio Type Sub Category list, refer to the Reference Manual.

**Name**
Determines the Arpeggio Type name.

**Track**
Determines the source Track number for each Arpeggio Track.
Convert Type
Determines how the MIDI sequence data will be converted to Arpeggio data from one of the three ways below. This parameter can be set for each track.

Settings: Normal, Fixed, Org Notes
- Normal: The Arpeggio is played back using only the played note and its octave notes.
- Fixed: Playing any note(s) will trigger the same MIDI sequence data.
- Org Notes (Original Notes): Basically same as “Fixed” with the exception that the Arpeggio playback notes differ according to the played chord.

Store As User Arp
Executes the Store Job.

Play FX (Play Effect)
This Job adds effects to the MIDI sequence data in a Pattern when it is played back. You can determine the range and strength for each parameter on the Track you've specified.

Operation
[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Play FX]

Play FX1
Operates the Qntz Value, Qntz Str, Swing Vel, Swing Gate and Swing Rate parameter.

Qntz Value (Quantize Value)
Determines to what beats the note data in the sequence data will be aligned.
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)

Qntz Str (Quantize Strength)
Sets the degree or “magnetic strength” to which Quantize is applied. A setting of 100% produces exact timing. A setting of 0% results in no quantization.
Range: 0% – 100%

Swing Vel (Swing Velocity)
Adjusts the velocity of the corresponding notes to accentuate the swing rhythmic feel.
Range: 0% – 200%

Swing Gate
Adjusts the gate time of the corresponding notes to accentuate the swing rhythmic feel.
Range: 0% – 200%
Swing Rate
This selectively delays the notes on even-numbered beats (backbeats) to produce a swing feel.

Settings: Depends on specified Quantize Value
- If the Quantize value is 1/4 note, 8th note, 16th note, 32nd note: 0 – half of the grid
- If the Quantize value is 1/4 note triplet, 8th note triplet, 16th note triplet: 0 – half of the grid

Play FX2
Operates the Note Shift, Clock Shift, Gate Time, Velocity Rate and Velocity Offset parameters.

Note Shift
Raises or lowers the pitch of all notes in the selected track in semitones.
Range: -99 – +99

Clock Shift
Shifts the timing of all notes in the selected track forward or backward in clock increments.
Range: -120 – +120

Gate Time
Raises the gate time of all notes in the selected track.
Range: 0% – 200%

Velocity Rate
Alters the velocity of notes by the specified percentage.
Range: 0% – 200%

Velocity Offset
Increases or decreases the velocity of notes by the specified offset value.
Range: -99 – +99

Part
Determines the destination Part to normalize.
Range: All, 1–16

Normalize Play FX
Applies the effects set in Play FX to the MIDI data.

Length
Indicates the length of the entire sequence in the selected Scene.

Position
Shows the current position during Scene playback, and lets you set the starting position of playback.
Range: 001 – 256
Chain

This Job chains Scenes and playback chained Scenes.

**Operation**

[▶] (Play) button or [PERFORMANCE] → [Play/Rec] → [Pattern] → [Edit/Job] → [Chain]

**Measure**
Determines the measure position from which the Scene is played back.
**Range:** 001 – 999

**Scene**
Determines the Scene that is played back from the specified measure position.
**Range:** 1 – 8, End

**Page**
Indicated by the up and down buttons, when the Measure-Scene line exceeds 8. Touching this button calls up the next/previous page.

**Convert to Song**
Stores the Chain as a Song.

**Length**
Indicates the length of the entire sequence.

**Position**
Shows the current position during Chain playback, and lets you set the starting position of playback.
**Range:** 001 – 999
New Rhythm Pattern function

The Rhythm Pattern function provides a simple way to add a rhythm part to the current Performance. By combining rhythm patterns and the Envelope Follower, you can modify the patterns even further.

As an example, the following steps show how to add the rhythm pattern “8Z Trance Basics 1” to the Performance “Supertrance,” and then modify the sound with the Envelope Follower.

Adding a Rhythm Part (simple way)

1. Select the desired Performance for adding the rhythm part.
   Select “Supertrance.”

2. Press the [SHIFT] button + the [CONTROL ASSIGN] button.
   The Rhythm Pattern display appears. When all of the parts in Part 1 to 8 are already in use, the message “Part Full” appears and the rhythm pattern cannot be added.

3. From the Rhythm Pattern List, touch the Rhythm Pattern kit you want to use.
   Here, touch “8Z Trance Basics 1.” A rhythm part is added.

4. Play the keyboard and the rhythm pattern starts playing.

5. Press the [PERFORMANCE (HOME)] button or [EXIT] button to set the Rhythm Pattern.
   The Rhythm Pattern display closes.
   NOTE You can also touch the HOME icon to confirm the selection.

6. To stop the rhythm pattern, press the [ARP ON/OFF] button or the [■] (Stop) button.
   NOTE You can also stop the rhythm pattern by touching the [Arp Hold On] button on the display.
Setting the Envelope Follower

Envelope Follower is a feature that extracts the envelope (or amplitude envelope) of a waveform from the input signals, and then lets you use that envelope as a controller for modifying sounds. For example, by assigning a rhythm pattern to a Part and setting the Envelope Follower of the Part as a “Source,” the sound of the other Parts are modified accordingly. This is especially useful for automatic “ducking,” where you want to lower the volume of other instruments while a certain instrument sound is being played.

1 Touch the [Envelope Follower] tab at the bottom of the Rhythm Pattern display. The Envelope Follower display appears.

2 Turn the Envelope Follower switch “ON.” Here, you can play the keyboard to hear the sound with the Envelope Follower enabled.
3 Adjust settings as needed.

Here, in this example, set the Curve Polarity (Polarity) to “Bi,” the Curve Ratio (Ratio) to “-63,” and the Gain (Gain) to “-12dB.”

For setting other parameters, touch the [EDIT] button on the screen, and open the Envelope Follower Setting display.

When you want to change the Rhythm Pattern kit or the Arpeggio Type, press the [SHIFT] button + the [CONTROL ASSIGN] button to go back to the Rhythm Pattern display. The Envelope Follower settings are retained even after the new kit or the Arpeggio type is selected.
Live Set

The Live Set function now lets you combine Songs, Patterns and Audio files, and play them back from the Live Set display.

- Combine Songs, Patterns and Audio files within the Live Set display

**Operation**  
Press the [LIVE SET] button, or touch the LIVE SET icon → Select the User Bank → [EDIT]

![Live Set Display](image)

**Slot Type**  
Indicates the selected slot type.  
**Settings:** Perform (Performance), Song, Audio, Pattern  
**NOTE** The Audition function is available only when Perform is selected in the Slot Type.

**Slot Name**  
Indicates the selected Slot name. Touching Slot Name (when available and indicated) calls up the input character display. When the Slot Type is set to Song, Audio or Pattern, this indicates Song Name, Audio Name or Pattern Name, and touching it calls up the Load display.  
**NOTE** You can change the Slot Name only when Perform is selected on Slot Type.

**Performance**  
Indicates the Performance Name specified on the selected Slot. Touching the Performance calls up the Category Search display.

**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 on the selected Slot.

**Swap**  
Touching Swap when one Slot is selected and touching another Slot swaps the respective Slot contents with each other.

**Copy**  
Touching Copy with the source Slot selected and then touching the destination Slot copies the Slot contents.
### Playing back Songs, Patterns and Audio files from the Live Set display

#### Operation

Press the [LIVE SET] button, or touch the LIVE SET icon → Select the User Bank → [▶] (Play) button

#### NOTE

- When a Song or Pattern is playing back, you cannot change the Performance or the Slot. An error message appears when you try to change it.
- When a Song, Pattern or Audio file is playing back, you can open the corresponding playback display on the Performance by pressing the [▶] (Play) button.
Super Knob Link and Keyboard Control have been added to the data that is recorded in the Scene function.

### Scene

**Operation**  
[PERFORMANCE] → [Scene]

---

**Super Knob (Super Knob Memorize Switch)**  
Determines whether Super Knob states are memorized in a Scene or not.  
**Settings:** Off, On

**Link (Link Memorize Switch)**  
Determines whether Super Knob Link states are memorized in a Scene or not.  
**Settings:** Off, On

**Super Knob Link**  
Determines whether the Assignable Knobs 1-8 on the selected Scene are affected by Super Knob operations or not. Assignable Knobs set to Off are not affected by Super Knob operations.  
**Settings:** Off, On
**Kbd Ctrl (Keyboard Control Memorize Switch)**
Determines whether Keyboard Control operations are memorized in a Scene or not.
**Settings:** Off, On

**Kbd Ctrl (Keyboard Control)**
Determines the Keyboard Control Switch on each Part on the selected Scene. Parts set to Off are not affected by playing the keyboard.
**Settings:** Off (gray), On (green)
Edit

Increased the parameter range of the Part LFO Speed.

- **Normal Part (AWM2)**

## Element LFO

**Operation** [EDIT] → Select the Part from [Common] → Select the Element → [Element LFO]

### Speed

Adjusts the speed of LFO variation. The parameter range has been increased from 0 – 63 to 0 – 415.

**Range:** 0 – 415

### Extended LFO

This lets you select between the old parameter range (Off: 0 – 63) or the new parameter range (On: 0 – 415). If you want to maintain compatibility with settings made in the old parameter, set this to Off.

**Settings:** Off, On
Speed (2nd LFO Speed)
Adjusts the speed of LFO variation. The parameter range has been increased from 0 – 99 to 0 – 415.
**Range:** 0 – 415

Extended LFO
This lets you select between the old parameter range (Off: 0 – 99) or the new parameter range (On: 0 – 415). If you want to maintain compatibility with settings made in the old parameter, set this to Off.
**Settings:** Off, On
Utility

Settings

Sound

The Global Micro Tuning settings have been added.

**Operation**  [UTILITY] → [Settings] → [Sound]

![Utility page screenshot]

**Global Tuning**

When this function is on, Micro Tuning in the Global Settings has priority over the Micro Tuning settings that the Performance has on each Part. This function is applied to all parts except for the Drum Part.

**Settings:** Off, On

**NOTE**  The Global Tuning Setting automatically returns to Off every time you reboot the instrument.

**Micro Tuning Name**

Indicates the selected Micro Tuning Name. Touching this button calls up the menu page for selecting Preset or User.

**Settings:**  
- Preset → Equal Temperament, Pure Major, Pure Minor, Weckmeister, Kirnberger, Valloti & Young, 1/4 Shift, 1/4 tone, 1/8 tone, Indian, Arabic1, Arabic2, Arabic3
- User → User1 – 8

**Micro Tuning Root**

Determines the root note for the Micro Tuning function. Depending on the Micro Tuning Name, this setting may not be necessary, and therefore will not appear.

**Range:**  C – B
**Edit User Tuning**

Calls up the User Micro Tuning Settings display.

![Edit - User Micro Tuning](image)

**Tuning No.**
Indicates the selected User Micro Tuning Number.  
**Range:** 1 – 8

**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*

Adjust the pitch of each note in 1-cent steps to determine the desired Micro Tuning.

**Range:** -99 – +99

**Initialize**
Initializes the selected User Micro Tuning.
**Advanced**

You can cancel Audition Loop.

**Operation** [UTILITY] → [Settings] → [Advanced]

**Audition Loop**

When this function is set to On and the Audition Phrase is played back to the end, the Audition Phrase replays from the beginning of the Audition Phrase automatically. When this function is set to Off, Audition Phrase playback stops when the end is reached. You can switch between On and Off while playing back the Audition Phrase.

**Settings:** Off, On
Hybrid has been added to the Settings in the MIDI I/O Mode.

**Operation**
[UTILITY] → [Settings] → [Advanced]

- **When MIDI I/O Mode is set to Hybrid:**
  
  **Receiving MIDI Data**
  - MIDI data received via the channel that is set in the MIDI I/O Channel parameter is received on Parts with Keyboard Control Switch set to ON.
  - MIDI data received via a channel other than that set in the MIDI I/O Channel parameter or on Parts with Keyboard Control Switch set to Off, is received via the corresponding Part.

  **Sending MIDI Data**
  - When Common/Audio is selected and the Part with Keyboard Control Switch set to ON is selected, MIDI data is sent from the channel that is set in the MIDI I/O Channel parameter.
  - When a Part with Keyboard Control Switch set to Off is selected, MIDI data is sent from the channel corresponding to the Part.
MIDI Data Reception with USB TO DEVICE

This function now enables this instrument to receive MIDI data from an external MIDI keyboard / controller connected to the [USB TO DEVICE].

**Supported MIDI equipment:** MIDI devices that are USB MIDI class compliant and devices tested by Yamaha

* For a list of devices tested by Yamaha, refer to the link below
  https://www.yamaha.com/2/montage

**NOTE**  The maximum rated value of the [USB TO DEVICE] is 5V/500mA. Do not connect to USB devices that exceed the rated value, since such devices may cause damage to the instrument.

**NOTE**  This function does not support MIDI data transmission to a connected device via the [USB TO DEVICE] on this instrument.

- **When MIDI I/O Mode is set to Multi**
  - Channel events, received through channels corresponding to Parts with Keyboard Control Switch set to On, are received in parallel by all Parts with Keyboard Control Switch set to On. After receiving, when this instrument transmits MIDI data, all note data of the channel corresponding to parts with Keyboard Control Switch set to On are transmitted.
  - Channel events received via the channel that corresponds to the Part with Keyboard Control Switch set to Off affect the corresponding Part. After receiving, when this instrument transmits MIDI data, the same channels used for receiving are used to transmit the channel data.

- **When the MIDI I/O Mode is set to Single or Hybrid**
  - Channel events, received through channels corresponding to Parts with Keyboard Control Switch set to On, are received in parallel by all Parts with Keyboard Control Switch set to On. However, when this instrument receives Control Change messages regarded as Common parameters and the MIDI I/O mode is set to Single, this instrument does not send Control Change messages to the Part and instead treats them as Common parameters. After receiving, Sending of Control Change messages is done according to the MIDI I/O Channel setting.
  - Channel events received via the channel that corresponds to the Part with Keyboard Control Switch set to Off are received by the corresponding Parts. The received MIDI data is not re-transmitted when the MIDI I/O mode is set to Single.
User Interface Enhancements

- Selecting Songs with [INC/YES] and [DEC/NO] buttons
  You can now select Songs with the [INC/YES] and [DEC/NO] buttons when the cursor is on the Song Name on MIDI display. The Song Number is now displayed in front of the Song name.

  **Operation**
  
  ![Operation Diagram]

- Memorizing the Bank and Attribute selected in the Performance Category Search
  This instrument can now memorize the last setting of Bank and Attribute on the Performance Category Search display even after moving to another display.

  **Operation**
  
  ![Operation Diagram]
Open the Home display with the [EXIT] button
You can now easily go back to the Home display with the [EXIT] button when a Performance display (excepting the Home display) is opened.

Easy method to select a target slot on the Register display

**Operation** [SHIFT] + [LIVE SET] (except when Live Set display is selected)

When Preset or Library is selected in Bank
The lowest numbered empty Slot in the grid is automatically selected from User Bank 1. When the User Bank has no empty Bank, no slot is selected when opening the User Bank 1 display.

When User is selected in Bank
The lowest numbered empty Slot in the grid after the current page is selected automatically. When the User Bank is not empty, the lowest numbered empty Slot in the lowest numbered available page is selected. When the User Bank has no empty Bank, no slot is selected.

Sequencer Block
The Note capacity (total area in Store) has been increased from 130,000 to 520,000 (for Songs) and 520,000 (for Patterns).
New Functions in MONTAGE Version 2.50

Yamaha has upgraded the MONTAGE firmware, adding the following new functions. This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

- New Performances have been added.
- The DAW Remote function has been added.
- A new function has been added that allows you to selectively enable (or disable) recording of Arpeggio data, when recording MIDI songs.
- You can now set a Center note in the Edit Waveform display.
- You can now set a key for assignment when loading WAV files or AIFF files as waveforms.
- You can now select the Assignable Knob for Common Parts, by pressing the [PART COMMON] in the dialog displayed when selecting the Part parameter and pressing the [CONTROL ASSIGN] button.
- The Panel Lock function has been added to prevent inadvertent operations during your performance.
Additional New Performances

The MONTAGE offers 512 new Performances in MOTIF XF Bank. For the added Performances, refer to the Data List.
DAW Remote function

You can now control DAW software on your computer from MONTAGE. The DAW Remote function can be used only when the computer is connected via USB cable. MIDI cables cannot be used.

Setting up the DAW Remote function

**Settings on MONTAGE**
Refer to the Owner’s Manual for use with a computer.
[Remote] → Call up the setting display of DAW Remote function in [Settings] → Set the DAW type to your particular DAW software.

**Setting up DAW software**
This section explains the specific operations for each DAW software type.

**NOTE** Once the connection between the computer and the MONTAGE is lost, the DAW software may occasionally fail to recognize MONTAGE, even when reconnecting while power is on. If this happens, reconnect the computer and the MONTAGE, then reboot the DAW software.

**IMPORTANT**
Depending on the version of your DAW software, the setting procedure may differ from the following instructions, or the setup may not be successful. For details, refer to the owner’s manual of the DAW software.

- **Cubase**
  1. [Device]/[Studio] → [Device Settings...]/[Studio Setup...] to call up the dialog.
  2. [MIDI] → select [MIDI Port Setup] → uncheck the [In All MIDI Inputs] field of MONTAGE-2 or MONTAGE Port 2.
  3. Press the [+]* button on the top left of the dialog, then, select [Mackie Control] from the list.
  4. [Remote Devices] → select [Mackie Control].
  5. Set the [MIDI Input] and the [MIDI Output] to MONTAGE-2 or MONTAGE Port2.

- **Logic Pro**
  1. [Logic Pro X] → [Preferences] → [Advanced] → checkmark [Show Advanced Tools].
  2. [Logic Pro X] → [Control Surfaces] → [Setup...] to call up the dialog.
  3. [New] → [Install...] to select [Mackie Control] of [Mackie Designs].
  5. (Optional) [Logic Pro X] → [Control Surfaces] → [Controller Assignments...] to set [Zone] to [Control Surface: Mackie Control] and assign functions to [Control] [F1] – [F8].

- **Ableton Live**
  1. [Live] → [Preferences...] to open the dialog.
  2. Select the [Link/MIDI] tab.
  3. Select [MackieControl] for the [Control Surface].
  4. Set the [Input] and the [Output] to MONTAGE-2 or MONTAGE Port2.

- **Pro Tools**
  1. [Setup] → [Peripherals...] to open the dialog.
  2. Select the [MIDI Controllers] tab.
  3. Set the Type to [HUI], and set the [Receive From] and [Send To] to MONTAGE-2 or MONTAGE Port2 of [Predefined].
Controlling DAW Software from MONTAGE

In the Remote display, the DAW Remote Function will apply and the panel operations will be changed.

**Mode**
Select a behavior of the DAW Remote function from three Modes.

**Settings:** Track, Plugin, Transport

**Track:** Mode for operating multiple tracks on DAW software at the same time.

- **Assignable Knob:** Track Pan will be output from Port 2.
- **Slider:** Track Volume will be output from Port 2.
- **SCENE button:** Assigned functions for F1 – F8 will be output from Port 2.
- **Other controllers:** CC assigned in Remote Mode will be output.
- **Number A [1] – [8]:** Track Select will be output from Port 2.
- **Number A [9] – [16]:** Mute will be output from Port 2.
- **Number B [1] – [8]:** Solo will be output from Port 2.
- **Number C [1] – [8]:** Rec Enable will be output from Port 2.
- **PART [MUTE]/[SOLO]:** Track Group Select will be output (by eight tracks) from Port 2.
- **ELEMENT/OPERATOR [MUTE]/[SOLO]:** Track Group Select will be output (by track) from Port 2.

**Plugin:** Mode for detailed control of a specific plug-in in DAW software.

- **Knob, Slider, SCENE button, Other controllers:** Output the CC which is set in the Remote Mode.

**Transport:** Mode for performing on MONTAGE while playing back DAW software, and recording your keyboard performance on MONTAGE to DAW software. Using the Transport panel controls, you can control playback, stop, etc. on the DAW software. Operations other than the Transport panel controls will be the same as normal.

**Local**
Determines whether to set Local Control on or off. This can also be set from the MIDI I/O display in the Utility.
Use for Remote
Determines whether to use the Dial and the Cursor buttons on MONTAGE panel for controlling DAW software or not.
On: Use for DAW operation.
Off: Use for MONTAGE display operation.

Track
The operation is the same as the PART [MUTE]/[SOLO].

Edit
Determines the control number of CC output from Port 1, and the operation mode of the controllers.
Play/Rec

MIDI

When recording Songs, you can select whether to record only the keyboard performance, or to record the output of the Arpeggiator.

**Operation**

[ ► ] (Play) button

or

[PERFORMANCE] → [Play/Rec] → [MIDI]

**Arp Rec**

When this is set to on, the Arpeggiator output can be recorded. When this is set to off, only the keyboard performance is recorded. This can only be set when recording a new song. The setting cannot be changed after the recording. Also, when recording additional parts to previously recorded songs with this set to off, the Record Type can only be set to Replace.

**Settings:** Off, On

**NOTE** Songs recorded with this set to off, can be played back with a different Arpeggio from the recorded one by changing to another Arpeggio set in Performance.
Part Edit (Edit)

Element Edit (Element)

Osc/Tune (Oscillator/Tune)

Edit Waveform
Center Note setting has been added.

Operation: 
[PERFORMANCE] → [EDIT] → Part selection → Select Element or Key → [Osc/Tune] → [Edit Waveform]

Center Note
Determines the key for playback to match the pitch of the original waveform data.

Settings: C-2 – G8
Utility

Contents

Load

Added a Key setting function when loading WAV files and AIFF files as waveforms.

Operation

[PERFORMANCE] → [EDIT] → Part selection (Normal Parts only) → Select Element → [Osc/Tune] → [New Waveform] or
[PERFORMANCE] → [EDIT] → Part selection (Normal Parts only) → Select Element → [Osc/Tune] → [Edit Waveform] →
[Add Keybank]

Key

Select the key to which the loaded WAV file or AIFF file will be assigned.

Settings: Keyboard Select (C-2 – G8), All
Control Assign dialog

In the dialog displayed when the Part parameter is selected and the [CONTROL ASSIGN] button is pressed, you can now select the Assignable Knob of Common by operating the Assignable knob by pressing the [PART COMMON].

**Operation**  
Point the cursor to the control destination parameter of the Part → Press the [CONTROL ASSIGN] button.

While pressing the [PART COMMON] button, operate the Knob you wish to use when operating the target parameter.

**NOTE**  
An error message appears when you turn the Super Knob and there are no more Assignable Knobs or Control Assigns available for assigning a Source.
Panel Lock Function

The Panel Lock function has been added to prevent inadvertent operations during your performance.

**Operation**  
[SHIFT] + [ELEMENT COMMON] in Home display or Live Set display.

To unlock the panel, press [SHIFT] + [ELEMENT COMMON] again. When the Panel Lock Function is engaged, all operations will be unavailable, except the keyboard, pedals, Master Volume, Super Knob, Pitch Bend wheel, Modulation wheel, Ribbon controller, and the unlock operation. This lock also applies to touch panel operations.
Yamaha has upgraded the MONTAGE firmware, adding the following new functions.
This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

- New Performances have been added.
- You can now create User Audition Phrases.
- New functions have been added in some displays for simplifying Super Knob settings.
- Transitioning of displays during edits have been improved.
- You can now set the Live Set slot as a startup display.
- You can now apply the Live Set Font Size to the Category Names in the Category Search display.
- You can now load MOXF files.
- You can now load Performance data for the MOTIF XS, MOTIF XF, and MOXF.
- You can now set to keep the current tempo after switching to a different Performance.
- You can now set to keep the current A/D Part volume after switching to a different Performance.
- The shortcuts for opening the Control Assign display have been added in the Envelope Follower display.
- You can now select the Super Knob, Motion Sequencer Lane, or Envelope Follower as a source in the dialog that appears when the [CONTROL ASSIGN] button is pressed.
- New function that emphasize the connected lines in the Overview display to indicate the controller you are operating and its destinations has been added.
- Increased the number of Songs that can be recorded in the MIDI tab of the Play/Rec display from 64 to 128.
Additional New Performances

The MONTAGE offers 99 new Performances.
For the added Performances, refer to the Data List.
Common/Audio Edit (Common/Audio)

**General**

You can now create User Audition Phrases.

**Operation** [PERFORMANCE] → [EDIT] → PART [COMMON] → [General]

![Edit - Common/Audio screen]

**Bank**

Indicates the Bank to be used for Audition.

**Settings:** Preset, User, Library names (when the Library files are loaded)

**Update User Auditions**

Converts all of the songs recorded on the MONTAGE to User Auditions. If the User Auditions already exist, all User Auditions will be overwritten.
Control

Control Assign

When Assignable Knobs are set to Source and Destination but the control destination is not yet selected, a new control destination parameter can be added in this display.

Operation

[PERFORMANCE] → [EDIT] → PART [COMMON] → [Control] → [Control Assign]

or


Touching the [+ ] button adds a new Part parameter for the Destination.
Part Edit (Edit)

Mod/Control (Modulation/Control)

Control Assign

When the Display Filter is set to “Super Knob,” a new parameter can be added by touching the [+] button and will immediately be available for control with the Super Knob.

Operation

[PERFORMANCE] → [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Mod/Control] → [Control Assign]

When the Display Filter is set to “Super Knob,” touching the [+] button shows a message on the upper part of the display, and the Control Assign setting for Common/Audio Edit is automatically added.

NOTE  When there are no more Assignable knobs available, the [+] button does not appear on the display.
Utility

Settings

System

Added the capability for Live Set slot to be selected as a startup display. Also, enabled the Live Set Font Size to be applied to the Category Names in the Category Search display.

**Operation**  [UTILITY] → [Settings] → [System]

![Utility Settings Screen]

**Initial Live Set**

**Bank**

**Page**

**Slot**

Determines the Live Set slot as a startup display when Power On Mode is set to “Live Set.”

**NOTE** You can also set the Live Set slot as a startup display by first selecting a Performance in the Live Set display and then touching the “Set Current Slot” button in this display.
Live Set Font (Live Set Font Size)
Determines the font size of the contents names and category names on the Live Set display and the Category Search display.

Settings: Normal, Large

- **Category Search display**
  - Normal
    ![Performance Category Search](image1)
  - Large
    ![Performance Category Search](image2)
Enabled compatibility with MOXF files. Also, enabled compatibility with Performance data for MOTIF XS, MOTIF XF, and MOXF.

**Operation**  
[UTILITY] → [Contents] → [Load]

---

**Import Option**  
Selects the Voice data or the Performance data to load. The Import Option appears when “All” files for MOTIF XS, MOTIF XF or MOXF are in the folder.  
**Settings:** Voice, Perf
**Tempo Settings**

Added a setting for keeping the current tempo after switching to a different Performance.

**Operation**

[UTILITY] → [Tempo Settings] or [SHIFT] + [ENTER]

or

TEMPO SETTINGS icon

---

**Global Tempo**

When set to OFF, the tempo changes according to the Performance tempo. When set to ON, the current tempo is retained even after switching to a different Performance.

**Settings:** Off, On
Added a setting for keeping the current A/D Part volume after switching to a different Performance.

**Operation**

[UTILITY] → [Effect Switch]

or

Effect icon

**Global A/D**

When set to ON, neither the A/D Part volume nor other related parameters are retained even after switching to a different Performance. When set to OFF, the A/D Part volume and other related parameters change according to the Volume setting in the Performance.

**Settings:** Off, On
Envelope Follower

The shortcuts for opening the Control Assign display has been added in the Envelope Follower display.

**Operation**

[PERFORMANCE] → [EDIT] → Part Selection → ELEMENT/OPERATOR [COMMON] → [Effect] → [Routing] → Envelope Follower

**Edit**

Calls up the Control Assign display for the Destination Part.
Control Assign dialog

You can now select the Super Knob, Motion Sequencer Lane, or Envelope Follower as a source in the dialog that appears when the [CONTROL ASSIGN] button is pressed.

**Operation**
Press the [CONTROL ASSIGN] button when the cursor is on the parameter to be the control destination.

Operate the controller you want to set as a Destination parameter or touch a number under “Motion Sequencer Lane” or “Envelope Follower.”

**NOTE** An error message appears when you turn the Super Knob and there are no moreAssignable Knobs available for assigning a Source.
New Functions in MONTAGE Version 1.60

Yamaha has upgraded the MONTAGE firmware, adding the following new functions. This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

- New effect types have been added.
- New Performances have been added.
- New functions have been added in some displays for simplifying Super Knob settings.
### Additional New Effect Types

The MONTAGE offers following new effect types.

<table>
<thead>
<tr>
<th>Effect Type</th>
<th>Description</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spiralizer P,</td>
<td>Unique filter applying Phaser (for Spiralizer P)/ Flanger (for Spiralizer F)</td>
<td>Spiral Speed</td>
<td>Determines the speed of the pitch shift.</td>
</tr>
<tr>
<td>Spiralizer F</td>
<td>processing with seemingly endless up/down pitch change.</td>
<td>Offset</td>
<td>Determines the starting pitch in semitones.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback</td>
<td>Determines the level of the sound signal output from the effect block and returned to its own input.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Step Mode</td>
<td>Determines whether the pitch shifts smoothly or step by step.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Semitones</td>
<td>Determines the pitch shift range when “Step Mode” is set to “Semitone.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scale Type</td>
<td>Determines how the pitch changes when “Step Mode” is set to “Scale.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spiral Sync</td>
<td>Determines the basic time period over which the pitch shifts step by step.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ofs Transition</td>
<td>Determines the time that elapses after the Offset value changes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Step Transition</td>
<td>Determines how long it takes for the pitch to change to the next pitch when the pitch shifts step by step.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dry/Wet</td>
<td>Determines the balance of the dry sound and the effect sound.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spiral</td>
<td>Turn the LFO On/Off.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effect Type</th>
<th>Description</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tempo Spiralizer P,</td>
<td>Spiralizer with tempo-synchronized LFO.</td>
<td>Spiral Speed</td>
<td>Determines the speed of the pitch shift.</td>
</tr>
<tr>
<td>Tempo Spiralizer F</td>
<td></td>
<td>Offset</td>
<td>Determines the starting pitch in semitones.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback</td>
<td>Determines the level of the sound signal output from the effect block and returned to its own input.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Step Mode</td>
<td>Determines whether the pitch shifts smoothly or step by step.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Semitones</td>
<td>Determines the pitch shift range when “Step Mode” is set to “Semitone.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scale Type</td>
<td>Determines how the pitch changes when “Step Mode” is set to “Scale.”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spiral Sync</td>
<td>Determines the basic time period over which the pitch shifts step by step.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ofs Transition</td>
<td>Determines the time that elapses after the Offset value changes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Step Transition</td>
<td>Determines how long it takes for the pitch to change to the next pitch when the pitch shifts step by step.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dry/Wet</td>
<td>Determines the balance of the dry sound and the effect sound.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direction</td>
<td>Determines the direction of the pitch shift.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spiral</td>
<td>Turn the LFO On/Off.</td>
</tr>
</tbody>
</table>
Additional New Performances

The MONTAGE offers 8 new Performances.
For the added Performances, refer to the Data List.
Motion Control

Super Knob

Shortcut buttons have been added for simplifying Super Knob settings.

Operation

[PERFORMANCE] → [Motion Control] → [Super Knob]

**Edit Super Knob Motion Seq (Edit Super Knob Motion Sequencer)**
Calls up the Knob Auto display for editing the Motion Sequencer applied to the Super Knob (Super Knob Motion Sequencer).

**Edit Super Knob**
Calls up the Control Assign display in Common/Audio Edit for setting parameters controlled with the Super Knob.
You can now set Super Knob to “Display Filter.” You can also check the parameters for Parts which are controlled by using Assignable Knobs common to all Parts in this display.

**Display Filter**
Determines the Controller to be displayed. When “Super Knob” is selected, all Assignable Knob settings in which “Super Knob Link” is set to On are displayed.

**Settings:** AsgnKnob 1 – 8, Super Knob, MS Lane 1 – 4, EnvFollow 1 – 16, EnvFollowAD, EnvFollowMst, All

The following parameters are displayed only when “Destination 1 – 16” is set to “Part 1 – 16 Assign 1 – 8.” Also, when Destination is not set to any Assignable Knobs for the Part, only the shortcut buttons are available.

**Destination**
Determines the controller settings for the Part to be displayed.

**Settings:** 1 – 16 (The number of Destinations for the Assignable Knobs for the Part which is selected in “Destination 1 – 16” is displayed.)

**Parameter**
Determines the parameters for the Part to be controlled.

**Settings:** Refer to the “Control List” in the Data List.

**Edit Part Control Settings**
Calls up the Control Assign display for the currently selected Part.

**Curve Type**
Determines the specific curve for changing the parameter which is set in “Destination.” The horizontal axis indicates the value of the controller set in “Source” and the vertical axis indicates the parameter values.

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

**For User Bank:** User 1 – 32

**When a Library file is read:** Curves in Library 1 – 8
Polarity (Curve Polarity)
Determines the Curve Polarity of the Curve type set in “Curve Type.”
Settings: Uni, Bi
- Uni: Unipolar changes only in a positive direction or in a negative direction from a base parameter value according to the Curve shape.
- Bi: Bipolar changes in both of positive and negative directions from a base parameter value.

Ratio (Curve Ratio)
Determines the Curve Ratio.
Settings: -64 – +63
Part Edit (Edit)

Mod/Control (Modulation/Control)

Control Assign

You can now set Super Knob to “Display Filter.”

**Operation**

[PERFORMANCE] → [EDIT] → Part selection → ELEMENT/OPERATOR [COMMON] → [Mod/Control] → [Control Assign]

**Display Filter**

Determines the Controller to be displayed. When “Super Knob” is selected, all Assignable Knob settings to be affected by using the Super Knob are displayed.

**Settings:** PitchBend, ModWheel, AfterTouch, FootCtrl 1, FootCtrl 2, FootSwitch, Ribbon, Breath, AsgnKnob 1 – 8, Super Knob, AsgnSw 1, AsgnSw 2, MS Lane 1 – 4, EnvFollow 1 – 16, EnvFollowAD, EnvFollowMst, All

**Edit Common Control Settings**

Calls up the Control Assign display for Common/Audio Edit.
New Functions in MONTAGE Version 1.50

Yamaha has upgraded the MONTAGE firmware, adding the following new functions.
This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

- New effect types have been added.
- New Performances have been added.
- The Favorite function has been added.
- "Mixing" has been added for the “Parameter with Part” setting of the Part Category Search.
- From the Performance Play (Home) display, you can now see various information.
- The Super Knob Link function has been added.
- You can now control the monitor volume of the Audio signal input from the [USB TO HOST] terminal.
- You can now switch Scenes by Control Change messages.
- You can now make partial changes to the font size on the Live Set display and the Category Search display.
- You can now save/load backup files in which the entire User Memory data (including Songs and Libraries) is stored.
- Each Edit display has been improved by allowing touch selection of Parts from the display.
## Additional New Effect Types

The MONTAGE offers following new effect types.

<table>
<thead>
<tr>
<th>Effect Type</th>
<th>Description</th>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rotary Speaker 2</strong></td>
<td>Simulator of a rotary speaker including the amp block.</td>
<td>Speed Control</td>
<td>Switches the rotary speed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drive</td>
<td>Controls the amount of the distortion.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tone</td>
<td>Adjusts the tone level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RH Balance</td>
<td>Determines the volume balance of the horn (higher range) and rotor (lower range).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Output Level</td>
<td>Determines the output level of the effected sounds.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mic L-R Angle</td>
<td>Determines the L/R angle of the microphone.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Input Level</td>
<td>Determines the input level.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mod Depth</td>
<td>Determines the depth of the modulation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horn Slow/Fast</td>
<td>Determines how long it takes for the rotation speed of the horn (higher range) to change from Slow to Fast when the rotation speed is switched.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horn Fast/Slow</td>
<td>Determines how long it takes for the rotation speed of the horn (higher range) to change from Fast to Slow when the rotation speed is switched.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rotor Slow</td>
<td>Determines the frequency of the rotor (lower range) when the Speed Control is set to Slow.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horn Slow</td>
<td>Determines the frequency of the horn (higher range) when the Speed Control is set to Slow.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rotor Fast</td>
<td>Determines the frequency of the rotor (lower range) when the Speed Control is set to Fast.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Horn Fast</td>
<td>Determines the frequency of the horn (higher range) when the Speed Control is set to Fast.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rtr Slow/Fast</td>
<td>Determines how long it takes for the rotation speed of the rotor (lower range) to change from Slow to Fast when the rotation speed is switched.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rtr Fast/Slow</td>
<td>Determines how long it takes for the rotation speed of the rotor (lower range) to change from Fast to Slow when the rotation speed is switched.</td>
</tr>
</tbody>
</table>

| **Uni Comp Down**    | Compressor using “downward” algorithm for making loud sounds quieter.        | Threshold          | Determines the minimum input level at which the compressor effect is applied. |
|                      |                                                                             | Knee               | Determines how the transition range changes around the threshold. The higher the value, the shallower the transition curve. |
|                      |                                                                             | Attack             | Determines the amount of time it takes for the effect to reach its maximum compression. |
|                      |                                                                             | Release            | Determines the amount of time it takes for the compressor effect to diminish or fade out. |
|                      |                                                                             | Ratio              | Determines the ratio of the compressor. |
|                      |                                                                             | Side Chain EQ      | When this is turned on, the EQ is applied for the corresponding input level range of the Side Chain. |
|                      |                                                                             | SC EQ Q            | Determines the Side Chain EQ bandwidth. |
|                      |                                                                             | SC EQ Freq         | Determines the center frequency of the Side Chain EQ. |
|                      |                                                                             | SC EQ Gain         | Determines the level gain of the Side Chain EQ. |
|                      |                                                                             | Dry/Wet            | Determines the balance of the dry sound and the effect sound. |
|                      |                                                                             | Output Level       | Determines the output level of the effected sounds. |
|                      |                                                                             | Make Up Gain       | Determines the output gain of the compressor block. |
|                      |                                                                             | Post-comp HPF      | Determines the Cutoff Frequency of the High-Pass Filter which follows the compressor. |
|                      |                                                                             | Clipper            | Determines the extent to which the Clipper is applied for forcibly reducing the gain. |
|                      |                                                                             | Clipper Source     | Determines the signal to which the Clipper effect is applied for forcibly reducing the gain. |
|                      |                                                                             | Side Chain Lvl     | Determines the Side chain input level. |

![Uni Comp Down Diagram](image)

**Uni Comp Down Diagram**

- **Output**
- **Input**
- **Threshold**
- Ratio: 1.0
- Ratio: 2.0
- Ratio: 4.0
## Uni Comp Up

**Description:** Compressor using "upward" algorithm for making quiet sounds louder.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Threshold</strong></td>
<td>Determines the maximum input level at which the compressor effect is applied.</td>
</tr>
<tr>
<td><strong>Knee</strong></td>
<td>Determines how the transition range changes around the threshold. The higher the value, the shallower the transition curve.</td>
</tr>
<tr>
<td><strong>Attack</strong></td>
<td>Determines the amount of time it takes for the effect to reach its maximum compression.</td>
</tr>
<tr>
<td><strong>Release</strong></td>
<td>Determines the amount of time it takes for the compressor effect to diminish or fade out.</td>
</tr>
<tr>
<td><strong>Ratio</strong></td>
<td>Determines the ratio of the compressor.</td>
</tr>
<tr>
<td><strong>Side Chain EQ</strong></td>
<td>When this is turned on, the EQ is applied for the corresponding input level range of the Side chain.</td>
</tr>
<tr>
<td><strong>SC EQ Q</strong></td>
<td>Determines the Side chain EQ bandwidth.</td>
</tr>
<tr>
<td><strong>SC EQ Freq</strong></td>
<td>Determines the center frequency of the Side chain EQ.</td>
</tr>
<tr>
<td><strong>SC EQ Gain</strong></td>
<td>Determines the level gain of the Side chain EQ.</td>
</tr>
<tr>
<td><strong>Dry/Wet</strong></td>
<td>Determines the balance of the dry sound and the effect sound.</td>
</tr>
<tr>
<td><strong>Output Level</strong></td>
<td>Determines the output level of the effected sounds.</td>
</tr>
<tr>
<td><strong>Make Up Gain</strong></td>
<td>Determines the output gain of the compressor block.</td>
</tr>
<tr>
<td><strong>Post-comp HPF</strong></td>
<td>Determines the Cutoff Frequency of the High-Pass Filter which follows the compressor.</td>
</tr>
<tr>
<td><strong>Clipper</strong></td>
<td>Determines the extent to which the Clipper is applied for forcibly reducing the gain.</td>
</tr>
<tr>
<td><strong>Clipper Source</strong></td>
<td>Determines the signal to which the Clipper effect is applied for forcibly reducing the gain.</td>
</tr>
<tr>
<td><strong>Gain Limit</strong></td>
<td>Determines the maximum gain level.</td>
</tr>
<tr>
<td><strong>Side Chain Lvl</strong></td>
<td>Determines the Side chain input level.</td>
</tr>
</tbody>
</table>

### Uni Comp Up Diagram

![Uni Comp Up Diagram](image-url)

### Parameters Diagram

- **Input**: Input level
- **Output**: Output level
- **Gain Limit**: Gain limit
- **Ratio**: Ratio
- **Threshold**: Threshold

## Effect Type

### Parallel Comp

**Description:** Compressor applying parallel processing of the compressed sounds and dry sounds.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Determines the compressor type.</td>
</tr>
<tr>
<td><strong>Compression</strong></td>
<td>Determines the extent to which the compressor is applied.</td>
</tr>
<tr>
<td><strong>Texture</strong></td>
<td>Determines the texture of the compressor effect.</td>
</tr>
<tr>
<td><strong>Output Level</strong></td>
<td>Determines the output level of the effected sounds.</td>
</tr>
<tr>
<td><strong>Input Level</strong></td>
<td>Determines the input level.</td>
</tr>
</tbody>
</table>

## Presence

**Description:** Effect for bringing out the hidden presence in the input sounds.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presence</strong></td>
<td>Determines the extent to which the effect is applied.</td>
</tr>
<tr>
<td><strong>Texture</strong></td>
<td>Determines the texture of the sound effect.</td>
</tr>
<tr>
<td><strong>Output Level</strong></td>
<td>Determines the output level of the effected sounds.</td>
</tr>
</tbody>
</table>
Additional New Performances

The MONTAGE offers 52 new Performances. For the added Performances, refer to the Data List.
Category Search

- **Performance Category Search, Arpeggio Category Search, Waveform Category Search**

  The Favorite function has been added, giving you quick access to the sounds and Arpeggios you want. This section explains an example of the Favorite function for Performance Category Search.

**NOTE**

You can filter the Performance List by Favorite in the Part Category Search and in the Performance Merge, but you cannot turn the Favorite icon on/off from the search displays.

**Favorite Set / Unset**

Enters (Sets) or cancels (Unsets) the Favorite icon to the currently selected Performance. This is not available when the cursor is not on the Performance List.

**NOTE**

You can also set/unset the Favorite icon from the menu which is displayed by touching the Performance name on the Performance Play (Home) display.

**Favorite All Clear**

Clears all Favorite icons on Performances. This is available only when at least one Performance has a Favorite icon.

**Bank/Favorite (Performance Bank Select/Favorite)**

Filters the Performance List by Bank or Favorite. When Favorite is selected, only Performances having a Favorite icon are listed.

**Settings:** All, Favorite, Preset, User, Library Name (when the Library file is read)

**NOTE**

When the Category Search display is selected, pressing the [CATEGORY] button repeatedly switches Banks among All, Favorite, Preset, User, Library (when the Library file is read). Holding down the [CATEGORY] button lets you go back to All.
**Part Category Search**

When “Mixing” of the “Parameter with Part” (Param. with Part) setting is set to off, you can change sounds continuously, using the current setting values for the Part such as Volume, Pan and Note shift.

**Operation**

[PERFORMANCE] → (When the Part to which any sounds are assigned is selected) Select the Part Name → [SHIFT]+[CATEGORY] (Part Category Search)

or

(When the Part to which any sounds are assigned is selected) Touch the Part Name → Select [Search] from the displayed menu

**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.

**Settings:** Off, On
Performance Play (Home)

You can now see various information by turning “View” on.

Home

Operation

Press the [PERFORMANCE] button or Touch the [HOME] icon

View

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

Settings: Off, On

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

This section explains when “View” is turned on.
■ Element view

This appears only when the currently selected Part is the Normal Part (AWM2), and the [PERFORMANCE CONTROL] button or “Element/Operator control” is turned on.

Element SW (Element switch)
Determine whether each Element is active or not.
Settings: Off, On

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

■ Drum Key view

This appears only when the currently selected Part is the Drum Part, and the [PERFORMANCE CONTROL] button or “Element/Operator Control” is turned on.

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

Algorithm view
This appears only when the currently selected Part is the Normal Part (FM-X), and the [PERFORMANCE CONTROL] button or “Element/Operator Control” is turned on.

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

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

Operator Level
Determines the output level of the Operator.
Settings: 0 – 99
- **Part – Note view**
  This appears only when the [PART CONTROL] button is turned on or the cursor is on the Note Limit. This is useful for checking the Layer/Split settings among Parts.

- **Velocity – Note view**
  This appears only when the cursor is on any velocity limit of Parts. This is useful for setting Velocity split among Parts.
You can now make individual link setting of Assignable Knobs, to which functions commonly effective for all Parts are assigned, with the Super Knob.

**Operation**  
[PERFORMANCE] → [Motion Control] → [Super Knob]

**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

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

**Settings:** Off, On
Utility

Settings

Audio I/O

You can now control the monitor volume of the Audio signal input from the [USB TO HOST] terminal.

**Operation**  
[UTILITY] → [Settings] → [Audio I/O]

**USB Volume (USB Input Volume)**

Adjusts the volume of the Audio signal input from the [USB TO HOST] terminal. This setting is applied to the output gain of the OUTPUT (BALANCED) [L/MONO]/[R] jacks and the ASSIGNSABLE OUTPUT (BALANCED) [L]/[R] jacks.

**Settings:** 0 – 127

**NOTE**  USB Input Volume is stored as part of the general system settings, not as Performance data.
MIDI I/O

You can now switch Scenes by Control Change messages.

**Operation**  
[UTILITY] → [Settings] → [MIDI I/O]

### Scene CC (Scene Control Change Number)

Determines the Control Change Number generated by switching Scenes. 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 switching Scenes.

**Settings:** Off, 1 – 95

**NOTE**  
- Scene 1 – 8 is selected depending on the Control Change value.

**NOTE**  
When the same Control Change Number is set to both of the Super Knob Control Change and the Scene Control Change, an exclamation mark (!) is shown before the value. In such a case, changes to Scene Control have priority and changes to the Super Knob Control are ignored.
**System**

You can now change the font size partially on the Live Set display and the Category Search display.

**Operation** [UTILITY] → [Settings] → [System]

---

**Live Set Font (Live Set Font Size)**

Determines the font size of the contents name on the Live Set display and the Category Search display.

**Settings:** Normal, Large
- Live Set display
  - Normal

- Large
## Category Search display

- **Normal**

![Normal Category Search Display](image1)

- **Large**

![Large Category Search Display](image2)
Contents

You can now save/load backup files in which the entire User Memory data (including Songs and Libraries) is stored.

Load

Operation  [UTILITY] → [Contents] → [Load]

Content Type

<table>
<thead>
<tr>
<th>File Type</th>
<th>Device Type</th>
<th>Extension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backup File</td>
<td>File</td>
<td>.X7A</td>
<td>Data that is saved to USB flash memory as a backup file can be loaded to the User Memory again. A backup file includes all User data, Library data, and Song data.</td>
</tr>
</tbody>
</table>
Store/Save

Operation

[UTILITY] → [Contents] → [Store / Save]

Content Type

<table>
<thead>
<tr>
<th>File Type</th>
<th>Device Type</th>
<th>Extension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backup File</td>
<td>File</td>
<td>.X7A</td>
<td>Data that is stored to the User Memory can be saved to USB flash memory. A backup file includes all User data, Library data, and Song data.</td>
</tr>
</tbody>
</table>
Edit

Each of the following Edit displays has been improved and you can now select the desired Part by touching the Part name on the display: Normal Part (AWM2) Edit display, Drum Part Edit display, Normal Part (FM-X) Edit display, and Common/Audio Edit display. Here is an example of the Normal Part (AWM2) Edit display.

Part
Indicates the selected Part. Touching this calls up a pop-up list to switch the Part to be edited.
Settings: Common, Part 1 – 16
New Functions in MONTAGE Version 1.20

Yamaha has upgraded the MONTAGE firmware, adding the following new functions. This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

- Element / Operator Control has been added for “Control Function.”
- You can now store Control Function settings as Performance data.
- Song Loop playback function has been added.
- User Arpeggio function has been added.
- You can now separately mute original Parts and newly added Parts by Performance Merge.
- Monitor Volume settings for USB connection have been added.
- You can now control the Super Knob by MIDI Control Change messages.
- You can now copy or exchange Arpeggio Types.
- You can now copy or exchange Motion Sequences.
- Arp Bypass and Kbd Ctrl Lock functions have been added for “Effect Switch.”
Motion Control

Overview

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

Control Function
Switches among Performance Control, Part Control, and Element/Operator Control.

Settings: Performance Control, Part Control, Elem/Op Control

NOTE You can now store Control function operations as Performance data.

NOTE Element/Operator Control can also be selected by simultaneously holding down the [SHIFT] button and using the [PART CONTROL] buttons.

■ When “Element/Operator Control” is selected

<table>
<thead>
<tr>
<th>Number buttons</th>
<th>PART [MUTE] button and PART [SOLO] button are OFF</th>
<th>PART [MUTE] button ON</th>
<th>PART [SOLO] button ON</th>
</tr>
</thead>
</table>

When “Element/Operator Control” is selected and the PART [COMMON] button is ON, the Control Sliders 1 – 8 control the levels of the Elements/Operators of Part 1.

NOTE Element/Operator Control is useful for playing Performances, for example, that contain single Organ Parts, because controlling the volume of Elements in the Live Set display changes the harmonics of the Organ sound, just as with an actual organ.
MIDI

You can now loop Song playback.

### Playback and Playback Standby

**Operation**

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

#### Song Name

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

#### Loop

Determines whether the Song plays through a single time or continuously. When this is set to on, the Song is repeatedly played back between the “Loop Start” and “Loop End” points (below).

**Settings:** Off, On

#### Loop Start / End

Determines the start position and the end position of Loop playback. The measure number is in the left cell and the beat number is in the right cell. This is not available when “Loop” is set to off.
**Put Track to Arpeggio**

This function copies data in the specified measures of a track for creating Arpeggio data. Up to 16 unique note numbers can be recorded to the Arpeggio track. If more than 16 different note numbers have been recorded to the MIDI sequence data, the Convert operation reduces the notes in excess of the limit. Because of this, be careful to record only up to 16 different notes when you create an Arpeggio, especially when using multiple tracks.

**Operation**

[PLAY] button or [PERFORMANCE] > [Play/Rec] > [MIDI] > Touch the Song Name to call up the menu > [User Arp] in the menu

---

**Arp (Arpeggio Number)**

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

**Settings:** 1 – 256

**Category (Arpeggio Category)**

Determines the Category setting (Main Category and Sub Category) for the created Arpeggio data.

**Settings:** Refer to the Arpeggio Type Category List in the Reference Manual PDF document.

**Name (Arpeggio Name)**

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

**Song Track**

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

**Convert Type**

Determines how the MIDI sequence data (of Song tracks) will be converted to Arpeggio data from the three ways below. This parameter can be set for each track.

**Settings:** Normal, Fixed, Org Notes

- **Normal:** The Arpeggio is played back using only the played note and its octave notes.
- **Fixed:** Playing any note(s) will trigger the same MIDI sequence data.
- **Org Notes** (original notes): Basically same as “Fixed” with the exception that the Arpeggio playback notes differ according to the played chord.

**Original Notes Root**

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

**Settings:** C-2 – G8

**Measure**

Determines the range of measures to be copied to the Arpeggio data.

**Settings:** 001 – 999

**Store As User Arp (Store As User Arpeggio)**

Stores as User Arpeggio following all settings made in this display. This is not available when all tracks are set to off.
## Category Search

### Performance Merge
This allows you to separately mute original Parts and newly added Parts.

**Operation**

```
[PERFORMANCE] → (the selected Part and all Parts that follow must not be assigned) → [SHIFT] + [CATEGORY] or touch the "+" icon
```

### Original Part Mute
Mutes the original Parts.

**Settings:** Off, On

### Additional Part Mute
Mutes newly added Parts in the Performance Merge display.

**Settings:** Off, On
Utility

Settings

MIDI I/O

You can now control the Super Knob by MIDI Control Change messages.

Operation  [UTILITY] → [Settings] → [MIDI I/O]

Super Knob CC (Super Knob Control Change Number)
Determines the Control Change number generated by using the Super Knob. 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 using the Super Knob. When “MIDI I/O Mode” is set to “Multi,” Channel 1 is used for transmitting MIDI data. When “MIDI I/O Mode” is set to “Single,” the channel specified in “MIDI I/O Ch.” is used for transmitting MIDI data.

Settings:  Off, 1 – 95

NOTE  When this parameter is set to off, MIDI data is transmitted by SysEx (System Exclusive) messages.

Control Number
Calls up the Control Number display in the Common/Audio Edit.
**Effect Switch**

Arp Bypass and Kbd Ctrl Lock functions have been added for "Effect Switch."

**Operation**

[UTILITY] \(\rightarrow\) [Effect Switch] or touch the Effect icon

---

**Arp Bypass (Arpeggio Bypass Switch)**

Determines whether the Arpeggio Bypass is active or not. When this is set to on, all Arpeggiator operations are disabled.

**Settings:** Off, On

- **NOTE** Arpeggio Bypass can also be turned on/off by simultaneously holding down the [SHIFT] button and using the [ARP ON/OFF] button. The [ARP ON/OFF] button flashes when Arpeggio Bypass is turned on.
- **NOTE** When the Part Arpeggio Switch setting is changed, Arpeggio Bypass is automatically turned off even if it has been set to on.
- **NOTE** You can edit arpeggios in Song data generated by the arpeggiator with using DAW software. By turning Arpeggio Bypass on, you can prevent Song data edited on the DAW software from being affected again by the arpeggiator when routed back to the MONTAGE.

**Kbd Ctrl Lock (Keyboard Control Lock)**

Determines whether Keyboard Control Lock is active or not. When this is set to on, the Keyboard Control is turned on only for Part 1 and off for the other Parts.

When this is set to off, Keyboard Control settings for all Parts are returned to the original status.

**Settings:** Off, On

- **NOTE** When you use the MONTAGE as a 16-part multi-timbral sound module with DAW software, the Keyboard Control Lock function is useful for creating or editing MIDI tracks one by one.
Common/Audio Edit (Common/Audio)

Control

**Control Number**

When the same control number is assigned to the Super Knob and any Assignable Knob, the Super Knob takes priority and operation of the Assignable Knob may be ignored. A warning message appears in that case.

**NOTE** The Control Number set in this display is stored as Performance data. However, “FS Assign” and “Super Knob CC” are stored as general system settings, not as Performance data.

**Operation** [PERFORMANCE] → [EDIT] → [PART] [COMMON] → [Control] → [Control Number]

**MIDI Settings**

Calls up the MIDI I/O display in Utility.
**USB Monitor**

From the USB Monitor display, you can adjust the Audio Input level from the [USB TO HOST] terminal.

**NOTE** USB Main Monitor Volume and USB Assign Monitor Volume are stored as Performance Data.

**Operation**

[PERFORMANCE] → [EDIT] → PART [COMMON] → [USB Monitor]

---

**USB Main Monitor Volume**

Adjusts the Audio signal level which is input from the [USB TO HOST] terminal and output to the OUTPUT (BALANCED) [L/MONO]/[R] jacks.

**Settings:** 0 – 127

**USB Assign Monitor Volume**

Adjusts the Audio signal level which is input from the [USB TO HOST] terminal and output to the ASSIGNABLE OUTPUT (BALANCED) [L]/[R] jacks.

**Settings:** 0 – 127

**Audio Settings**

Calls up the Audio I/O display in Utility.
Part Edit (Edit)

You can now copy (or exchange) between Arpeggio types.

**Operation**

[PERFORMANCE] → [EDIT] → Select Part to be copied → [Arpeggio] → [Individual] → [SHIFT] + [EDIT]

or

[PERFORMANCE] → [Motion Control] → [Arpeggio] → Select Part to be copied → [SHIFT] + [EDIT]

**NOTE**  You can select “All” for Arp Select when copying between different Parts.

**Copy**

Touching this button activates the Arpeggio Type Copy function.

**Exchange**

Touching this button activates the Arpeggio Type Exchange function.

1. Part to be copied (or exchanged)
2. Arpeggio Select to be copied (or exchanged)
3. Copy (or exchange) destination Part
4. Copy (or exchange) destination Arpeggio Select
You can now copy (or exchange) between Motion Sequences.

**Operation**

[PERFORMANCE] → [EDIT] → Select Part to be copied → [Motion Seq] → [Lane] → [SHIFT] + [EDIT]
or
[PERFORMANCE] → [Motion Control] → [Motion Seq] → Select Part to be copied → [SHIFT] + [EDIT]
or
[PERFORMANCE] → [Motion Control] → [Knob Auto] → [SHIFT] + [EDIT]

**NOTE** You can select “All” for “Lane” and “MS Select” when copying between different Parts.

**Copy**

Touching this button activates the Motion Sequence Copy function.

**Exchange**

Touching this button activates the Motion Sequence Exchange function.

1. **Part to be copied (or exchanged)**
2. **Lane to be copied (or exchanged)**
3. **Motion Sequence Select to be copied (or exchanged)**
4. **Copy (or exchange) destination Part**
5. **Copy (or exchange) destination Lane**
6. **Copy (or exchange) destination Motion Sequence Select**
New Functions in MONTAGE Version 1.10

Yamaha has upgraded the MONTAGE firmware, adding the following new functions. This manual describes additions and changes with respect to the Reference Manual that came with your instrument.

- New Performances have been added.
- From the Performance Play (Home) display, you can now view Part types and categories of each Part.
- From the Performance Play (Home) and the Mixing displays, you can now turn the Arpeggio Hold function on/off.
- In the Part Category Search, you can now specify any Part other than Part 1 as the Part to be copied.
- Performance Merge function has been added.
- MIDI single channel mode has been added.
- From the Data Utility display (in the Utility display) you can now delete multiple contents together.
- You can now copy Performances from the Library memory to the User memory.
- You can now copy or exchange Elements/Operators/Drum Keys.
- You can now copy or exchange Live Sets on a Bank or page basis.
- Live Set pages and slots can now be controlled by MIDI Bank Select and Program Change messages.
New Performances

64 Performances have been added.
For details about the new Performances, refer to the Data List PDF document.

Performance Play (Home)

From the Performance Play (Home) display, you can view Part types and Arpeggio Hold function status.

Home

![Performance Play (Home) display]

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

2. Part Types / Part Names
Indicates the Part types and categories or the Part names.
Touching the parameter calls up the menu for Category Search, Edit, and Copy.
To add another Part, touch the “+” icon.

3. Part Arpeggio On/Off switch
Determines whether the Arpeggio of each Part is on or off. When the Arpeggio and the Arpeggio Hold are set to on, “Arp Hold On” is displayed.

**NOTE**  In the Part Control status, you can turn the Arpeggio Hold for the Part on or off by pressing the corresponding Number C [1] – [8] button while holding down the [SHIFT] button.

Settings: Off, On
Category Search

- Part Category Search
You can now select any Part in a Performance and assign the sound of the Part to another.

### Operation

[PERFORMANCE] → Part selection → [SHIFT]+[CATEGORY]
(When the Part to which any sounds are assigned is selected) Touch the Part Name → Select [Search] from the displayed menu
or
(When the Part to which no sound is assigned is selected) Touch the "+" icon

### <V1.10 New function>
When the selected Part and all succeeding Parts have no sound assigned (or are empty), executing the operation above opens the Performance Merge display.

#### Source
Determines which Part of the selected Performance will be assigned to the Performance being edited. Part 1 is selected by default, which has the same behavior as the older version.

**Settings:** Part 1 – 16
Performance Merge
From the Performance Merge display, you can collectively assign multiple Parts from the selected Performance to empty Parts in the Performance currently being edited. For example, you can merge four Piano Parts in one Performance and two Strings Parts in another Performance to create even more richly textured, layered sounds.

Operation
[PERFORMANCE] \rightarrow (the selected Part and all Parts that follow must not be assigned) \rightarrow [SHIFT] + [CATEGORY] or touch the “+” icon

Source
Determines which Part of the selected Performance will be assigned to the Performance being edited.
Settings: All, Part 1 – 16
- All: All non-empty Parts of the selected Performance are assigned to available empty Parts.
- Part 1 – 16: Only the sound from the specified Part is assigned to the selected Part.
Data communication between this instrument and an external device using only the specified MIDI channel is now available.

**Operation**  
[UTILITY] → [Settings] → [Advanced]

**MIDI I/O Mode**  
Determines which MIDI I/O mode is used for data communication between this instrument and an external device.

**Settings:** Multi, Single  
- **Multi:** Transmits MIDI data such as Note On/Off messages for each Part.  
- **Single:** Transmits MIDI data using only the channel specified in “MIDI I/O Ch.”

**MIDI I/O Ch. (MIDI I/O channel)**  
Determines the MIDI channel to be used for data communication when “MIDI I/O Mode” is set to “Single.”

**Settings:** Ch1 – 16

**NOTE**  
When this parameter is set to “Single,” Arpeggio data is not transmitted to the external device. When the Zone function is active, the Zone setting for the Performance is given priority over the “MIDI I/O Mode” setting. You can see which setting is active from the MIDI Signal Flow in the MIDI I/O display.
You can now collectively delete multiple contents such as Performances in the User Memory.

**Operation** [UTILITY] → [Contents] → [Data Utility]

### When the selected Folder is opened

#### Job (Job Switch)
Determines whether the Job function is active (On) or not (Off). When this function is active, you can select multiple contents collectively from this display.

**Settings:** Off, On

#### Select All
Selects all contents in the folder. This button is displayed only when no content is selected.

#### Unselect All
Unselects all contents in the folder. This button is displayed only when any of contents is selected.

#### Delete
Deletes the selected content(s). This button is displayed only when any of contents is selected.
You can now select a desired Performance in the Library file which is loaded to the User Memory and copy the Performance to the User Bank.

**Operation**  
[UTILITY] → [Contents] → [Library Import]

### Library Folder List

Indicates the Libraries as folders. Touching the Folder opens it. These folders are displayed only when Library files are loaded in the Load display.

### When the selected Library Folder is opened

- **Performance Select**
- **Unselect All**
- **Import to User Bank**
Performance Select
Indicates the Performances in the selected Library. Touching the name switches between being selected or unselected.

Select All
Selects all Performances in the selected Library folder. This button is displayed only when no Performance is selected.

Unselect All
Unselects all Performances in the Library folder. This button is displayed only when any of Performances is selected.

Import to User Bank
Copies the selected Performance in the User Bank. User Waveforms and User Arpeggio which are used in the selected Performance are copied to the User Bank as well. This button is displayed only when any of the Performances is selected.

Part Edit (Edit)
You can now copy (or exchange between) Elements/Operators/Drum Keys.

**Operation**

[PERFORMANCE] → [EDIT] → Select Element/Operator/Drum Key to be copied → [SHIFT] + [EDIT]

**Copy**
Touching this button activates the Copy function between Elements/Operators/Drum Keys.

**Exchange**
Touching this button activates the Exchange function between Elements/Operators/Drum Keys.

1. Part to be copied (or exchanged)
2. Element/Operator/Drum Key to be copied (or exchanged)
3. Copy (or exchange) destination Part
4. Copy (or exchange) destination Element/Operator/Drum Key

**NOTE**
Copying or exchanging between different Part types (for example, between Elements and Operators) cannot be executed.
Live Set Edit (Edit)

You can now copy (or exchange) between Live Sets on a Bank or page basis.

**Operation**  
[LIVE SET] → User Bank selection → [EDIT] → Select Bank/Page to be copied → [SHIFT] + [EDIT]

**NOTE**  
Page copy (or exchange) between different Banks cannot be executed.

**Copy**  
Touching this button activates the Bank/Page Copy function.

**Exchange**  
Touching this button activates the Bank/Page Exchange function.

1. Bank to be copied (or exchanged)
2. Page to be copied (or exchanged)
3. Copy (or exchange) destination Bank
4. Copy (or exchange) destination Page
Live Set

You can now select a desired Live Set Slot by sending the appropriate program change message from an external device. The Live Set Slots to be selected and the corresponding Bank Select MSBs/LSBs and Program Change Numbers are as follows.

<table>
<thead>
<tr>
<th>MSB (HEX)</th>
<th>LSB (HEX)</th>
<th>Program No.</th>
<th>Live Set Slot</th>
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</thead>
<tbody>
<tr>
<td>06</td>
<td>3E</td>
<td>00 00</td>
<td>0 – 15</td>
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<tr>
<td>1</td>
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