

# JUNO-DS Supplementary Manual

## Functions Added in JUNO-DS Ver.2

### Favorite

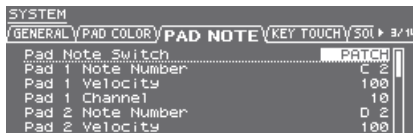
Program change and bank select MIDI messages can now be transmitted when you recall a favorite, as described below. This is a convenient way to select sounds or switch programs on a MIDI-connected external sound module.

| Content registered in a favorite | MSB   | LSB | PC    |
|----------------------------------|---|-----|-------|
| <b>Patch</b>                     |   |     |       |
| DS/PRST/GM/EXP Bank              | Values for each sound (refer to the parameter guide and sound list) |     |       |
| USER Bank: 0501-0628             | 87  | 0   | 1-128 |
| USER Bank: 0629-0756             |   | 1   |       |
| <b>Drum Kit</b>                  |   |     |       |
| DS/PRST/GM/EXP Bank              | Values for each sound (refer to the parameter guide and sound list) |     |       |
| USER Bank: R501-R508             | 86  | 0   | 1-8   |
| <b>Performance</b>               |   |     |       |
| PRST Bank                        | 85  | 64  | 1-64  |
| USER Bank                        |   | 0   | 1-128 |

### Phrase Pads

MIDI note messages can now be transmitted when you press a pad. This lets you use the pads to play drums or phrases. The messages to be transmitted can be individually specified for each pad.

1. Press the [MENU] button.
2. Move the cursor to "SYSTEM," and press the [ENTER] button.
3. Move the cursor to the tab, and use the [◀] [▶] buttons to select the "PAD NOTE" tab.



4. Move the cursor to the parameter that you want to edit, and use the value dial to edit the value.
5. Press the [EXIT] button to exit the screen.

### MEMO

MIDI note messages are transmitted only if you've selected the patch or performance top screen, or in the SYSTEM screen when the PAD NOTE tab is selected.

| Parameter           | Values/Explanation  |  |
|---------------------|---|--|
| Pad Note Switch     | Specifies the mode in which MIDI note messages are transmitted. |  |
|                     | OFF   | Messages are not transmitted.          |
|                     | PATCH   | Only in patch mode.                    |
|                     | PERFORM   | Only in performance mode.              |
|                     | BOTH  | In patch mode and in performance mode. |
| Pad 1-8 Note Number | Specifies the note that is transmitted.                         |  |
|                     | C--G9   |  |
| Pad 1-8 Velocity    | Specifies the velocity of the note that is transmitted.         |  |
|                     | OFF, 1-127  |  |
| Pad 1-8 Channel     | Specifies the MIDI channel of the note that is transmitted.     |  |
|                     | 1-16  |  |

### Holding MIDI Note Messages (Hold)

You can specify that the MIDI note message is held even after you release your hand from the pad (Hold). This is convenient when you want to play a sustained note or a phrase.

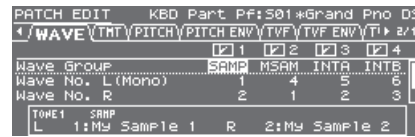
1. Press the [LOOP] button while pressing the pad.  
Note is held even after you release your hand from the pad.

### MEMO

- If you're pressing more than one pad, all of them are held.
  - Notes are also held if you first hold down the [LOOP] button and then press each pad.
2. If you press a pad while a note is being held, the hold function is cancelled for that pad.  
If you press the [LOOP] button by itself while notes are being held, the hold function is cancelled for all pads.

### Patch Edit / Drum Kit Edit

For the Wave Group parameter, you can now select SAMP (user sample) or MSAM (user multisample).



|             |   |
|-------------|---|
| <b>SAMP</b> | Select a wave (user sample) that you imported via sample import. The name of the file that was imported is shown as the wave name.                            |
| <b>MSAM</b> | Select a user multisample that you created by combining multiple user samples. User multisamples can be created using the "JUNO-DS Tone Manager" PC software. |

### DAW Control

In DAW control mode, octave shift (OCTAVE [DOWN] / [UP] buttons) is now available. You can change the octave of the note messages that are transmitted via MIDI.

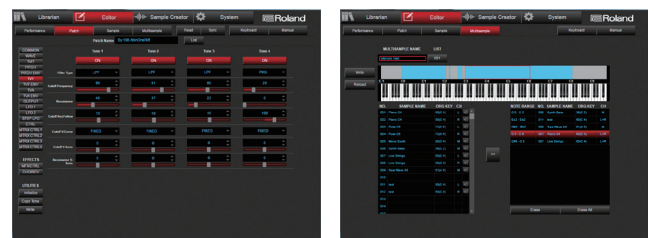
### Level Meter

The display conditions have changed for the level meter shown by the pad illumination.

- (Before change): In patch mode, the meter indicates the level of the sound played by the keyboard.
- (After change): The meter indicates the level of the sound played in the mode for which Pad Note Switch is available.

### Support for JUNO-DS Tone Manager

Now it supports for "JUNO-DS Tone Manager" which is a Computer software to manage and edit the patches/performance/samples. It lets you efficiently handle large numbers of contents on your computer.



### Sample Import

- The amount of user memory has increased, allowing you to import more samples.
- The Original Key and Loop Switch values of a WAV file that you create using the "JUNO-DS Tone Manager" software are automatically applied when importing the sample.

### Sample Edit

The Start/Loop/End Point of a WAV file that you create using the "JUNO-DS Tone Manager" software are automatically applied as the default values when you edit each sample.

Functions Added in JUNO-DS Ver.1.04

PATCH LIST (CAT) Screen

Move the cursor to the category number of the patch and press the [ENTER] button to access the PATCH LIST (CAT) screen.

(Example 1) Patch mode



(Example 2) Performance mode



You can also use the category buttons ([DRUMS/PERCUSSION]–[SAMPLE]) to switch tabs.

Function in Ver.1.03 and earlier: Access the PATCH LIST screen

|                  |  |
|------------------|--|
| Patch mode       | Move the cursor to the bank number, and press the [ENTER] button.                      |
| Performance mode | In the PERFORM EDIT screen, move the cursor to "Number," and press the [ENTER] button. |

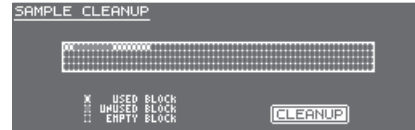
Favorite

Now you can use favorites even when the AUDIO PLAYER screen is displayed.

Sample Cleanup (SAMPLE CLEANUP)

Cleanup is a function that deletes unused sample waveform data. For example, if a patch number containing a sample created by sample import is overwritten by a different patch, the sample's waveform data remains by itself. The cleanup function deletes this type of unused sample waveform data in a single operation. This makes it a useful way to obtain the free memory that is needed when importing new samples.

1. Press the [SAMPLE IMPORT] button to make it light. The SAMPLE MENU screen appears.
2. Move the cursor to "SAMPLE CLEANUP," and press the [ENTER] button. The SAMPLE CLEANUP screen appears.



|  |              |  |
|--|--------------|--|
|  | USED BLOCK   | Waveform data of samples that are being used     |
|  | UNUSED BLOCK | Waveform data of samples that are not being used |
|  | EMPTY BLOCK  | Free memory                                      |

3. Press the [ENTER] button. A confirmation message appears. If you decide to cancel, press the [EXIT] button.
4. Move the cursor to "OK," and press the [ENTER] button. Cleanup is complete when the screen indicates "Completed!"

Arpeggio

By long-pressing the [ARPEGGIO] button, you can move to the ARPEGGIO screen from any screen without changing the arpeggio status.

Vocoder/Auto Pitch

- The "Part Level" parameter has been added to the VOCODER/AUTO-PITCH screen.
  - \* Part Level is memorized when you save vocoder / auto pitch settings.

| Parameter               | Value/Explanation   |
|-------------------------|---|
| <b>Mode: Vocoder</b>    |   |
| Part Level              | Adjusts the level at which the selected Carrier sound is input to the vocoder.<br>0-127 |
| <b>Mode: Auto-Pitch</b> |   |
| Part Level              | Adjusts the volume of the sound played on the keyboard when using auto-pitch.<br>0-127  |

- In the VOCODER/AUTO-PITCH screen, moving the [UPPER] slider adjusts the Part Level.
  - \* This is a change from Ver.1.03 and earlier, in which this slider adjusted "Patch Level."
- In the VOCODER/AUTO-PITCH screen, moving the [LOWER] slider adjusts the vocoder/auto pitch's Level.

**Pattern Sequencer**

In the PATTERN SEQUENCER screen you can now edit the patch that is used to play or record the track.

In the PATTERN SEQUENCER screen, press the [SAMPLE IMPORT] and [DAW CONTROL] buttons simultaneously, and then choose "PATCH EDIT."

**System Settings**

The "Patch Remain" parameter has been added to the "SOUND" tab of the SYSTEM screen.

| Parameter    | Value/Explanation  |
|--------------|--|
| Patch Remain | <p>Specifies whether currently sounding notes will continue sounding when another patch or drum kit is selected (ON), or not (OFF). When this is "ON," changes produced by incoming MIDI messages such as Volume or Pan (CC 5, 7, 10, 65, 68, 71-74, RPN 0, 1, 2, MONO ON, POLY ON), as well as tonal quality and volume changes produced by the various controllers will be inherited.</p> <ul style="list-style-type: none"> <li>* Effects settings change as soon as you switch to a new patch or drum kit, without being influenced by the Patch Remain setting. Because of this, certain effects settings can cause notes that were until then sounding to no longer be heard, even though Patch Remain has been set to "ON."</li> <li>* When using the pattern sequencer, Patch Remain is always OFF.</li> </ul> |
|              | OFF, ON  |

**Shortcut**

The following shortcuts have been added.

| Shortcut                    | Explanation   |
|-----------------------------|---|
| <b>Common section</b>       |   |
| [SHIFT] + each control knob | Displays the "KNOB" tab of the SYSTEM screen; the setting of the control knob you operated is selected. |
| [SHIFT] + [4]               | Turns the MFX (MFX1) on (lit)/off (unlit)   |
| [SHIFT] + [5]               | Turns the MFX2 on (lit)/off (unlit)<br>* Only in Performance mode.                                      |
| [SHIFT] + [6]               | Turns the MFX3 on (lit)/off (unlit)<br>* Only in Performance mode.                                      |
| [SHIFT] + [7]               | Turns the chorus on (lit)/off (unlit)   |
| [SHIFT] + [8]               | Turns the reverb on (lit)/off (unlit)   |

**Operations using [SHIFT] + ([0]-[3], [9])**

In Ver.1.04, the button lit/blink status when the [SHIFT] button is pressed has been changed as follows.

| Shortcut      | Explanation   |
|---------------|---|
| [SHIFT] + [0] | PATCH EDIT screen or DRUM KIT EDIT screen<br><b>When the shortcut is available:</b><br>Button blinks when the [SHIFT] button is held down |
| [SHIFT] + [1] | MFX (MFX1) screen   |
| [SHIFT] + [2] | CHORUS screen<br><b>When the shortcut is unavailable:</b><br>Button is unlit when the [SHIFT] button is held down                         |
| [SHIFT] + [3] | REVERB screen   |
| [SHIFT] + [9] | SAMPLE EDIT screen  |

**Sample Edit**

When you press the [MENU] button in the SAMPLE EDIT screen, the INIT MENU window appears. Choose "SAMPLE" and press the [ENTER] button to initialize the parameters other than that of the "SAMPLE" tab.

The "COMMON" tab and "SAMPLE WAVE" tab have been added to the SAMPLE EDIT screen.

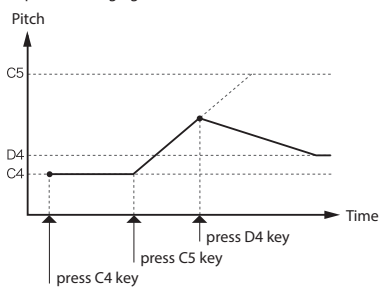
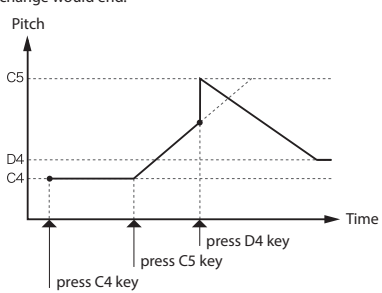
**COMMON**

| Parameter            | Value/Explanation  |
|----------------------|--|
| Patch Level          | Specifies the volume of the patch.<br>0-127  |
| Patch Pan            | Specifies the pan of the patch.<br>"L64" is far left, "0" is center, and "63R" is far right.<br>L64-0-63R  |
| Patch Priority       | <p>This determines how notes will be managed when the maximum polyphony is exceeded (128 voices).</p> <p>LAST: The last-played voices will be given priority, and currently sounding notes will be turned off in order, beginning with the first-played note.</p> <p>LOUDEST: The voices with the loudest volume will be given priority, and currently sounding notes will be turned off, beginning with the lowest-volume voice.</p>  |
|                      |  |
| Octave Shift         | Adjusts the pitch of the patch's sound up or down in units of an octave (±3 octaves).<br>-3-3  |
| Patch Coarse Tune    | Adjusts the pitch of the patch's sound up or down in semitone steps (±4 octaves).<br>-48-48  |
| Patch Fine Tune      | Adjusts the pitch of the patch's sound up or down in 1-cent steps (±50 cents).<br>-50-50   |
| Stretch Tune Depth   | <p>Stretched tuning (a system by which acoustic pianos are normally tuned, causing the lower range to be lower and the higher range to be higher than the mathematical tuning ratios would otherwise dictate)</p> <p>OFF: Equal temperament</p> <p>1-3: Higher settings will produce the greater difference in the pitch of the low and high ranges.</p>   |
|                      |  |
| Analog Feel          | Specifies the depth of 1/f modulation that is to be applied to the patch. By adding this "1/f modulation," you can simulate the natural instability characteristic of an analog synthesizer.<br>0-127  |
| Cutoff Offset        | Offsets the Cutoff Frequency value.<br>-63+63  |
| Resonance Offset     | Offsets the Resonance value.<br>-63+63   |
| Attack Time Offset   | Offsets the TVA-Env Time 1 and TVF-Env Time 1 values.<br>-63+63  |
| Release Time Offset  | Offsets the TVA-Env Time 4 and TVF-Env Time 4 values.<br>-63+63  |
| Velocity Sens Offset | Offsets the Cutoff V-Sens and Level V-Sens values.<br>-63+63   |
| Mono/Poly            | <p>Specifies whether the patch will play polyphonically (POLY) or monophonically (MONO). The "MONO" setting is effective when playing a solo instrument patch such as sax or flute.</p> <p>MONO: Only the last-played note will sound.</p> <p>POLY: Two or more notes can be played simultaneously.</p>  |
|                      |  |
| Legato Switch        | <p>Specifies whether the Legato Switch will be used (ON) or not (OFF). With the Legato Switch parameter "ON," pressing a key while continuing to press a previous key causes the note to change pitch to the pitch of the most recently pressed key, sounding all the while. This creates a smooth transition between notes, which is effective when you wish to simulate the hammering-on and pulling-off techniques used by a guitarist.</p> <ul style="list-style-type: none"> <li>* Legato Switch is valid when the Mono/Poly is set to "MONO."</li> </ul> |
|                      | OFF, ON  |

| Parameter        | Value/Explanation  |
|------------------|--|
| Legato Retrigger | Specifies whether sounds are replayed (ON) or not (OFF) when performing legato. Normally you will leave this parameter "ON." When "OFF," when one key is held down and another key is then pressed, only the pitch changes, without the attack of the latter key being played. Set this to "OFF" when performing wind and string phrases or when simulating the mono synth keyboard sound.<br>* Legato Retrigger is valid when the Mono/Poly is set to "MONO" and the Legato Switch is set to "ON."<br>OFF, ON |

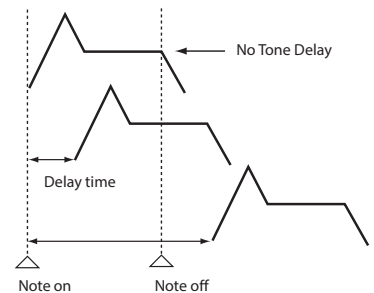
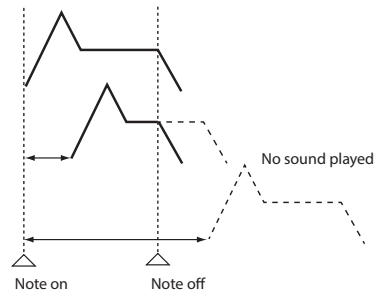
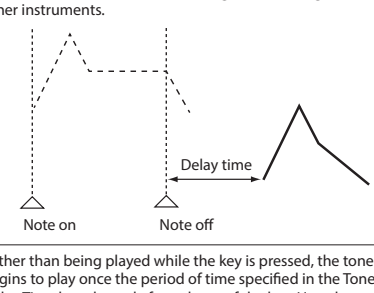
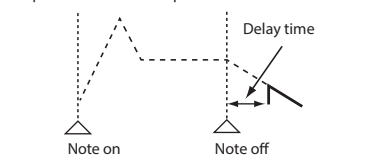
**MEMO**

Let's say you have the Legato Switch set to "ON," and the Legato Retrigger set to "OFF." When you try to sound a legato (by pressing a higher key while a lower key is held down), the pitch may sometimes not be able to rise all the way to the intended pitch (stopping instead at an intermediate pitch). This can occur because the limit of pitch rise, as determined at the wave level, has been exceeded. Additionally, if differing upper pitch limits are used for the waves of a Patch that uses multiple tones, it may stop being heard in MONO. When making large pitch changes, set the Legato Retrigger to "ON."

|                   |   |
|-------------------|---|
| Portamento Switch | Specifies whether the portamento effect will be applied (ON) or not (OFF).<br>OFF, ON   |
| Portamento Mode   | Specifies the performance conditions for which portamento will be applied.<br>NORMAL Portamento will always be applied.   |
|                   | LEGATO Portamento will be applied only when you play legato (i.e., when you press the next key before releasing the previous key).  |
| Portamento Type   | Specifies the type of portamento effect.<br>RATE The time it takes will depend on the distance between the two pitches.   |
|                   | TIME The time it takes will be constant, regardless of how far apart in pitch the notes are.  |
| Portamento Start  | When another key is pressed during a pitch change produced by portamento, a new pitch change will begin. This setting specifies the pitch at which the change will begin.<br>PITCH Starts a new portamento when another key is pressed while the pitch is changing.<br> |
|                   | NOTE Portamento will begin anew from the pitch where the current change would end.<br>   |
| Portamento Time   | When portamento is used, this specifies the time over which the pitch will change. Higher settings will cause the pitch change to the next note to take more time.<br>0-127   |

**SAMPLE WAVE**

| Parameter       | Value/Explanation   |
|-----------------|---|
| Wave Gain       | Sets the gain (amplification) of the waveform. The value changes in 6 dB (decibel) steps—an increase of 6 dB doubles the waveform's gain.<br>-6, 0, +6, +12   |
| Wave FXM Switch | Sets whether FXM will be used (ON) or not (OFF).<br>OFF, ON<br><b>MEMO</b>  |
| Wave FXM Color  | FXM (Frequency Cross Modulation) uses a specified waveform to apply frequency modulation to the currently selected waveform, creating complex overtones. This is useful for creating dramatic sounds or sound effects.<br>Specifies how FXM will perform frequency modulation. Higher settings result in a grainier sound, while lower settings result in a more metallic sound.<br>1-4 |
| Wave FXM Depth  | Specifies the depth of the modulation produced by FXM.<br>0-16  |

| Parameter  | Value/Explanation   |
|--|---|
| Tone Delay Mode  | Selects the type of tone delay.   |
|  | NORM The tone begins to play after the time specified in the Tone Delay Time has elapsed.<br>  |
|  | HOLD Although the tone begins to play after the time specified in the Tone Delay Time has elapsed, if the key is released before the time specified in the Tone Delay Time has elapsed, the tone is not played.<br>  |
|  | OFF-N Rather than being played while the key is pressed, the tone begins to play once the period of time specified in the Tone Delay Time has elapsed after release of the key. This is effective in situations such as when simulating noises from guitars and other instruments.<br> |
| OFF-D Rather than being played while the key is pressed, the tone begins to play once the period of time specified in the Tone Delay Time has elapsed after release of the key. Here, however, changes in the TVA Envelope begin while the key is pressed, which in many cases means that only the sound from the release portion of the envelope is heard.<br> |   |

**MEMO**

If you have selected a waveform that is a decay-type sound (i.e., a sound that fades away naturally even if the key is not released), selecting "OFF-N" or "OFF-D" may result in no sound being heard.

|                 |  |
|-----------------|--|
| Tone Delay Time | Specifies the time from when the key is pressed (or if the Delay Mode is set to "OFF-N" or "OFF-D," the time from when the key is released) until when the tone will sound.<br>0-127, note |
|-----------------|--|