JUNO-DS Version 1.04 Supplementary Manual

JUNO-DS Program Update

This explains how to update the JUNO-DS's system program.

Checking the Version

Before you download the system program, check the version of your JUNO-DS.

1. **Press the [MENU] button.**
2. **Move the cursor to "SYSTEM," and press the [ENTER] button.**
3. **Move the cursor to "INFORMATION" tab.**

What You'll Need for the Update

In order to update your JUNO-DS, you'll need the following items.

- JUNO-DS itself
- PC to write the updater to the USB flash drive
- USB flash drive (the USB flash drive needs to be formatted on a JUNO-DS)

Download the System Program and Uncompress the Compressed File

Download the file named "**juno_ds_sys_v104.zip**."
It is an archive file in zip format, please double click on the file to expand.
After expanding the file, the folder "**juno_ds_sys_v104**" holding the file "**juno_ds_up.bin**" will be appeared.

Note When Updating

- We recommend that you save your data to a USB flash drive before you perform the update. If a problem occurs and your data is lost, you will be able to restore the original state by reloading the data you saved.
  For details on the procedure, refer to the following sections of the "Saving JUNO-DS's Data to USB Flash Drive (BACKUP)" of the Owner's Manual p. 18.

- Never apply this update data to any product other than the JUNO-DS. This update data may destroy the data or system program of other products.

- **Never power-off your JUNO-DS while the update is in progress!**
  If a power failure or similar accident occurs during the update process, the JUNO-DS won't be able to start up in normal operating mode. This will require servicing, so you will need to contact Roland service center near you if this occurs.

- We regret that we are unable to answer questions regarding the update procedure using this system program. Please perform the update responsibly, following the directions given in this document.

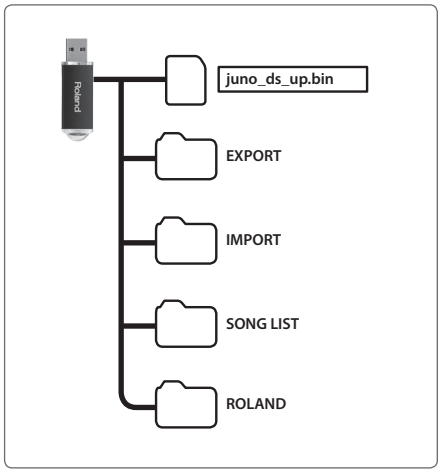
Update Procedure

Follow the procedure below to install the program "juno_ds_up.bin" in your JUNO-DS.

NOTE

Never turn off the JUNO-DS's power while the update is in progress.
Doing so may make the JUNO-DS's system unable to start up correctly.

1. **Copy the update-use file (juno_ds_up.bin) to the root directory of the USB flash drive.**



2. **Make sure the JUNO-DS's power is switched off, then connect the USB flash drive to the USB MEMORY port.**
3. **Hold down the [TAP] button and switch on the power.**
4. **When the message "start update." appears, release the [TAP] button.**
   The update starts.
   * The update process takes several minutes to finish. Be sure never to switch off the power before the operation finishes.

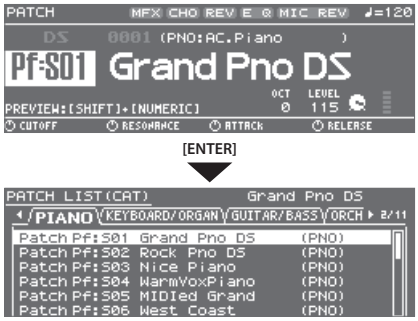
   When the message "===update finished.===" is displayed, the operation has finished. (It will take about 1 minute to update.)
5. **Switch off the power.**
6. **Detach the USB flash drive, then switch on the power to the unit and verify that the version has been updated.**

Functions Added in JUNO-DS Ver.1.04

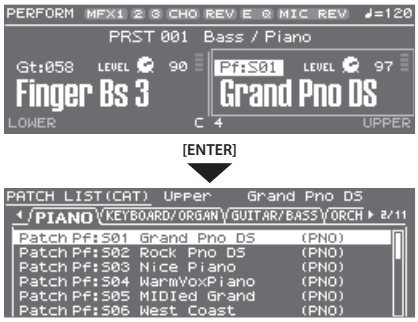
PATCH LIST (CAT) Screen

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

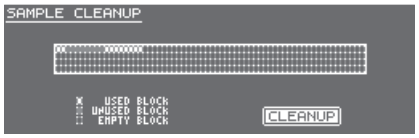
Now you can use favorites even when the AUDIO PLAYER screen is displayed.

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
Mode: Vocoder	
Part Level	Adjusts the level at which the selected Carrier sound is input to the vocoder.
	0–127
Mode: Auto-Pitch	
Part Level	Adjusts the volume of the sound played on the keyboard when using auto-pitch.
	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	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. * 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." * When using the pattern sequencer, Patch Remain is always OFF.
	OFF, ON

Shortcut

The following shortcuts have been added.

Shortcut	Explanation
Common section	
[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) * Only in Performance mode.
[SHIFT] + [6]	Turns the MFX3 on (lit)/off (unlit) * 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.

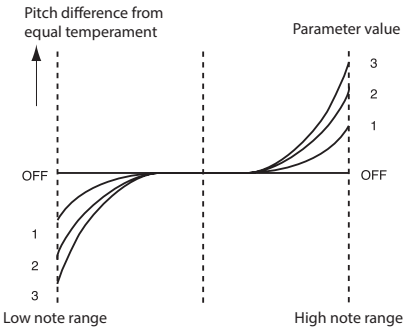
Shortcut	Explanation	
[SHIFT] + [0]	PATCH EDIT screen or DRUM KIT EDIT screen	**When the shortcut is available:** Button blinks when the [SHIFT] button is held down **When the shortcut is unavailable:** Button is unlit when the [SHIFT] button is held down
[SHIFT] + [1]	MFX (MFX1) screen	
[SHIFT] + [2]	CHORUS screen	
[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.

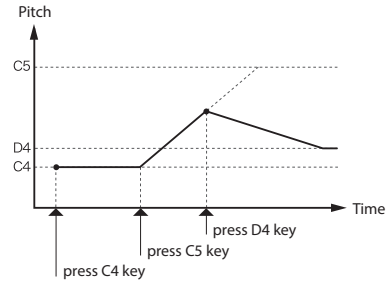
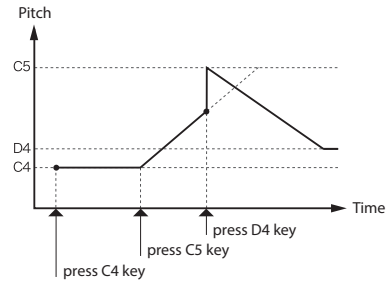
COMMON

Parameter	Value/Explanation	
Patch Level	Specifies the volume of the patch.	
	0–127	
Patch Pan	Specifies the pan of the patch. "L64" is far left, "0" is center, and "63R" is far right.	
	L64–0–63R	
Patch Priority	This determines how notes will be managed when the maximum polyphony is exceeded (128 voices).	
	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.
	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.
Octave Shift	Adjusts the pitch of the patch's sound up or down in units of an octave (±3 octaves).	
	-3–3	
Patch Coarse Tune	Adjusts the pitch of the patch's sound up or down in semitone steps (±4 octaves).	
	-48–48	
Patch Fine Tune	Adjusts the pitch of the patch's sound up or down in 1-cent steps (±50 cents).	
	-50–50	
Stretch Tune Depth	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)	
	OFF	Equal temperament
	1–3	Higher settings will produce the greater difference in the pitch of the low and high ranges.
		
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.	
	0–127	
Cutoff Offset	Offsets the Cutoff Frequency value.	
	-63–+63	
Resonance Offset	Offsets the Resonance value.	
	-63–+63	
Attack Time Offset	Offsets the TVA-Env Time 1 and TVF-Env Time 1 values.	
	-63–+63	
Release Time Offset	Offsets the TVA-Env Time 4 and TVF-Env Time 4 values.	
	-63–+63	
Velocity Sens Offset	Offsets the Cutoff V-Sens and Level V-Sens values.	
	-63–+63	
Mono/Poly	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.	
	MONO	Only the last-played note will sound.
	POLY	Two or more notes can be played simultaneously.
Legato Switch	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. * Legato Switch is valid when the Mono/Poly is set to "MONO."	
	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. * Legato Retrigger is valid when the Mono/Poly is set to "MONO" and the Legato Switch is set to "ON."
	OFF, ON

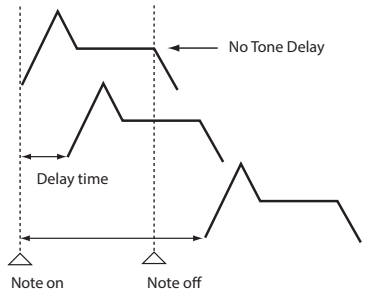
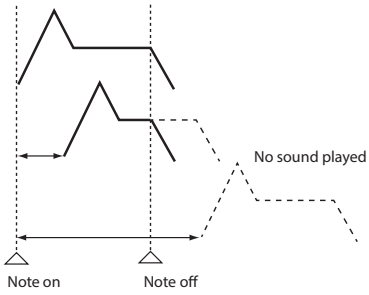
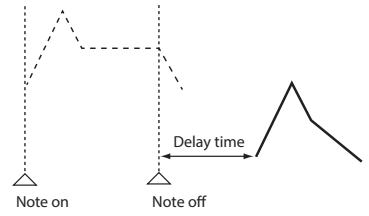
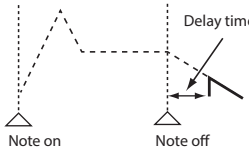
MEMO

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).	
	OFF, ON	
Portamento Mode	Specifies the performance conditions for which portamento will be applied.	
	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.	
	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.	
	PITCH	Starts a new portamento when another key is pressed while the pitch is changing. 
	NOTE	Portamento will begin anew from the pitch where the current change would end. 
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.	
	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.
	-6, 0, +6, +12
Wave FXM Switch	Sets whether FXM will be used (ON) or not (OFF).
	OFF, ON
	MEMO 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.
Wave FXM Color	Specifies how FXM will perform frequency modulation. Higher settings result in a grainier sound, while lower settings result in a more metallic sound.
	1–4
Wave FXM Depth	Specifies the depth of the modulation produced by FXM.
	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. 
	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. 
	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. 
	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. 

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.
	0–127, note