

TAL-J-8

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Introduction

The TAL-J-8 is a very accurate emulation of the popular 80's hardware synthesizer and is calibrated to our own Jupiter 8 device. All sounds are generated in realtime without the use of any samples. It has the same endless modulation possibilities as the hardware and also includes useful additional features.



It's tested and works within the most common audio hosts as *Ableton Live*, *Cubase*, *Logic Pro*, *Garage Band*, *Reaper* and *DSP-Quattro*. There is no standalone version available. Try the unregistered demo version to be sure that the plug-in works in your environment. The demo will play a noisy sound every minute.

Please use at your own risk. We take no responsibility for any damage caused by our VST, AU (Audio Unit) and AAX plug-ins.

Installation

Windows

Requirements:

- 64 bit sequencer software (VST 2.4, VST3 or AAX compatible)
- Windows 7 or newer

Installation:

- Download the file *install_TAL-J-8.zip* and unzip it.
- You can copy the plug-ins manually to your hosts VST directory or the VST3 version into the VST3 directory. The zip file contains all plug-ins. Our plug-ins do not require the installer.

VST3 Directory:

C:\Program Files\Common Files\VST3

AAX Directory:

C:\Program Files\Common Files\Avid\Audio\Plug-Ins

In hosts like Cubase, the plug-in may require a computer restart to appear in the host. Some hosts may also need a plug-in rescan.

If you use Ableton Live and the plug-in does not show up after a VST plug-in rescan, try to disable and re-enable VST plug-in support.

-

Uninstall:

Just delete the plug-in file to uninstall it.

OS X

Requirements:

- OSX 10.9 or higher.
- 64 bit sequencer software (VST 2.4, VST3 or AAX compatible)

Installation:

- Download the *TAL-J-8-installer.pkg*, unpack it and run the installer. The installer copies the plug-in to the right directory. It installs all available versions by default (VST, VST3, AU, AAX).

Uninstall:

Delete the plug-in. It's located in following directories:

*/Library/Audio/Plug-Ins/VST/
/Library/Audio/Plug-Ins/Components/*

In hosts like Cubase, the plug-in may require a computer restart to appear in the host. Some hosts may also need a plug-in rescan.

You maybe need a OSX restart for the Audio Unit.

If you use Ableton Live and the plug-in does not show up after a VST plug-in rescan, try to disable and re-enable VST plug-in support.

Registration

You need to buy and register the plug-in to disable the demo mode, which fades in a noisy sound every minute.

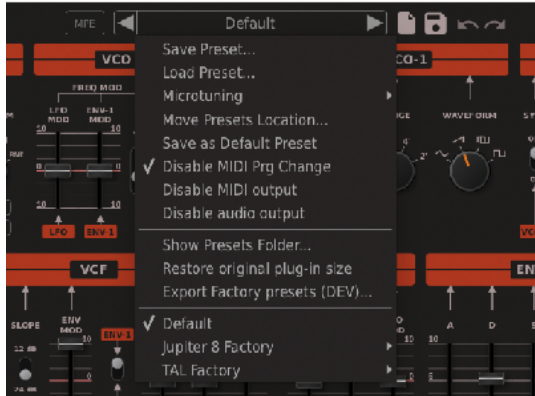
The registration process is simple. You need to start the demo plug-in and copy the serial from the email. A click into the white registration field pastes the serial. Demo mode should now change to *Registered*.



You maybe restart the host after the registration to make sure that also other plug-in instances are registered.

Option Menu

A click on the preset name on the top opens the *Menu*:



1. Save / Load Preset...

Save and load presets from the file system with the native file browser of your operating system.

2. Microtuning

Loads *.tun files for a microtonal tuning of the current preset.

3. Save as Default Preset

Replaces the Default preset in the root preset folder. This preset loads when you create a new instance of the instrument. You can save your default MIDI Mappings within this preset.

4. Disable MIDI Prg Change

Disables MIDI Program Change events when enabled. MIDI Program Change is not supported in VST3.

5. Disable MIDI output

MIDI output is disabled when enabled. Maybe required to avoid MIDI feedback loops.

6. Disable audio output

Disables the audio output when enabled. Useful when you only need the MIDI output, for example the Arpeggiator notes.

7. Show Presets Folder...

Opens the native file browser at the plug-ins preset location. This is the place where you can copy additional presets.

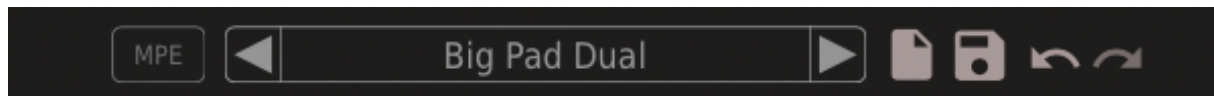
8. Restore original plug-in size

Reverts the plug-in to the original plug-in size.

9. The last section contains all presets located in the plug-ins default preset location.

Preset Browser

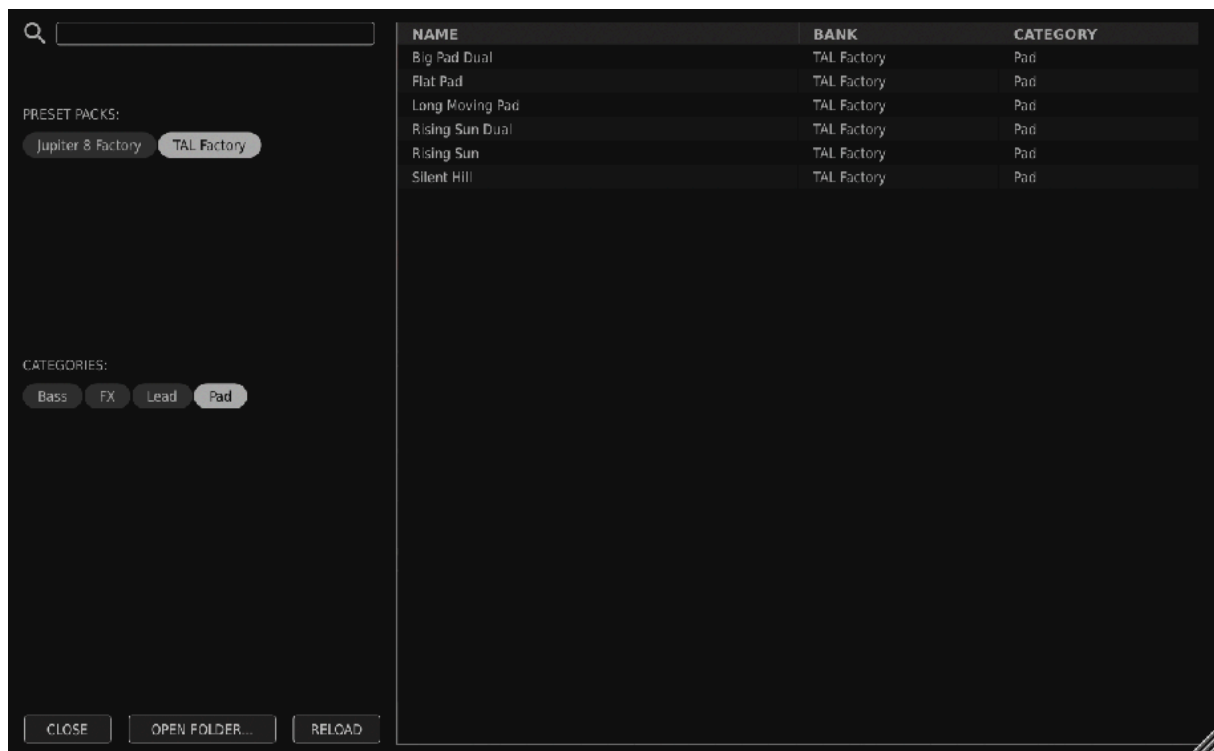
The Preset Browser / information is located at the top of the plug-in:



It's possible to step through the presets with the arrow keys.

A click at the *File* icon opens the plug-in preset browser. A click on the disk symbol opens the native file browser to save a preset.

The plug-in Preset Browser:



The preset files themselves don't contain any meta information which allows for fast browsing and simplicity. The Browser expects the following Folder Structure:

The root directories are named after Preset Pack or Library names and the sub folders in that directory are the categories.

You can then click at one or more CATEGORY or PRESET PACK name to filter the presets.

There is also a search box at the top for text search.

Slider

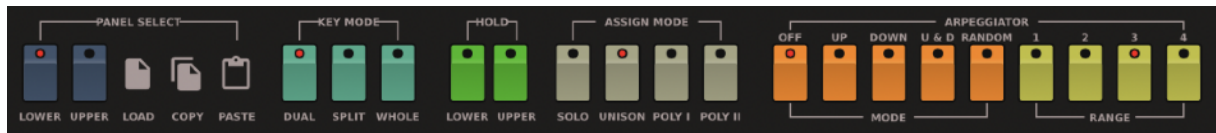


The plug-in sliders have some useful features that help to set the right value.

- CTRL and Drag for fine adjustment.
- SHIFT and Drag for the Pitch Wheel VCO slider activates tone snap
- Double click resets the slider to its default value.

Panel Modes

The TAL-J-8 has all the same features like the original hardware but does include some useful additions.



1. PANEL SELECT

The synth has two Panels (LOWER and UPPER). Every panel (layer) can contain a different sound. The plug-in loads the settings of the selected panel and shows them on the UI.

It's possible to COPY and PASTE between Panels, and load presets per Panel. It always loads presets into the selected Panel.

2. KEY MODE

DUAL: Plays both Panels at the same time.

SPLIT: Plays all notes < C4 with the LOWER Panel sound and the upper notes with the UPPER Panel sound.

WHOLE: Plays all sounds with the selected Panel.

3. HOLD

Holds the currently pressed keys when enabled.

4. ASSIGN MODE

SOLO: Legato with only one voice.

UNISON: Plays different detuned voices together.

POLY I: Poly mode with a fix voice limit.

POLY II: Allows voice stealing.

5. ARPEGGIATOR

The Arpeggiator supports UP, DOWN, U&D, and RANDOM Arpeggiator modes and has a range from one to four octaves.

Unlike the hardware, it is possible to enable the Arpeggiator for one panel only.

Signal Path

Following sections describe the sound creation and modulation possibilities every Panel has (both the UPPER and the LOWER).

LFO

Is a low frequency oscillator that can be used to modulate the signal.



RATE: The modulation speed is from zero up to 20 Hz.

DELAY TIME: The delay before the LFO fades in.

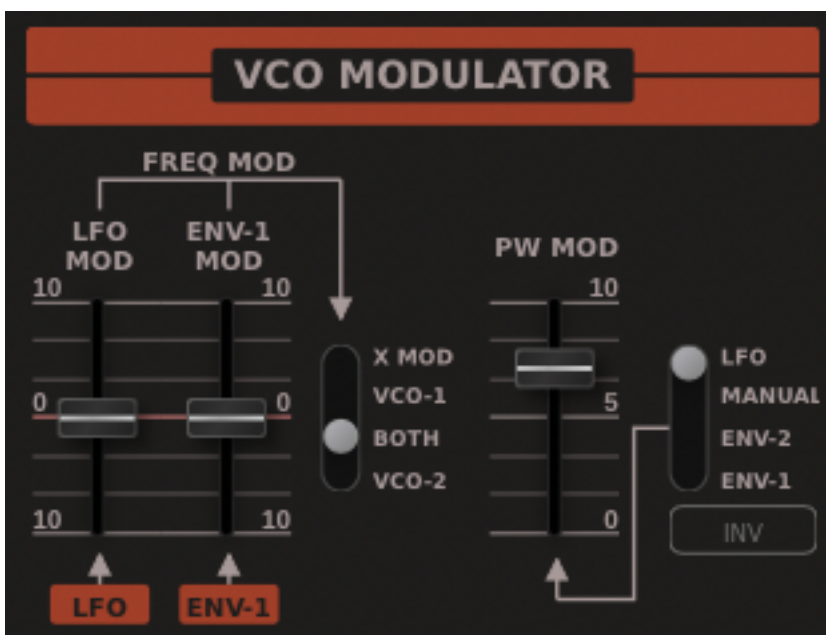
WAVEFORM: Different modulation waveforms (Sine, Saw, Pulse, Random)

TRIG: Triggers the LFO when a note is pressed.

SYNC: Sync's the LFO speed to the host tempo.

VCO MODULATOR

This section can be used to add modulation to the pitch or PW (Pulse Width of a pulse waveform)



FREQ MOD: Modulates the oscillator frequency with the LFO or the ENV-1 source. You can choose between VCO-2, BOTH, VCO-1 or X-Mod (CROSS MOD) as the modulation destination.

PW-MOD: Modulates the PULSE PW(Pulse Width). You can choose between LFO, MANUAL, ENV-2 or ENV-1 as the source. The INV setting inverts the modulation depth for LFO, ENV-2 and ENV-1.

VCO-1

This is the first Voltage Controlled Oscillator.



CROSS MOD: Controls the cross modulation amount using the VCO-2 waveform as the source.

RANGE: Sets the octave of the oscillator.

WAVEFORM: Let you choose the waveform. You can choose between Triangle, Saw, Pulse and Square.

VCO-2

This is the second Voltage Controlled Oscillator. It can be detuned with respect to the first VCO.

SYNC: When enabled it does a hard sync of VCO-2 with VCO-1.

RANGE LOW FREQ: Enables an LFO mode for VCO-2. Range controls the LFO speed when enabled. It's useful when you add cross mod to VCO-1. VCO-2 act's like an additional LFO and can modulate the pitch in this case.

When NOISE is selected (in Low Frequency Range Mode), it changes White noise into Brownian noise.

RANGE: Lets you set the VCO frequency in semitones.

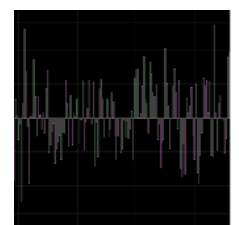
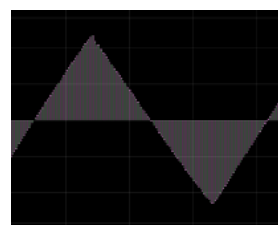
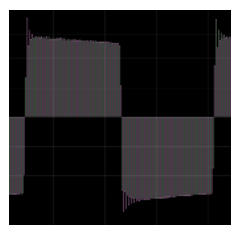
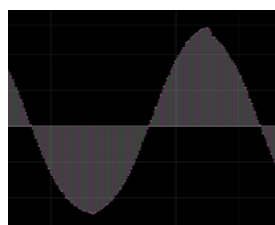
FINE TUNE: Tuning +/- 0.5 semitones.

WAVEFORM: Lets you choose the waveform. You can choose between Sine, Saw, Pulse and Noise.



VCO Waveforms

Saw, Sine, Pulse, Triangle and Noise



SOURCE MIX

Mixes the levels of the two VCO's.

HPF

The High Pass Filter is useful if you want to remove low frequencies.

VCF

The synth's Voltage Controlled Filter Section contains a low pass filter and some modulation possibilities.

CUTOFF FREQ: Adjusts the cutoff frequency of the filter.

RES: Sets the resonance intensity.

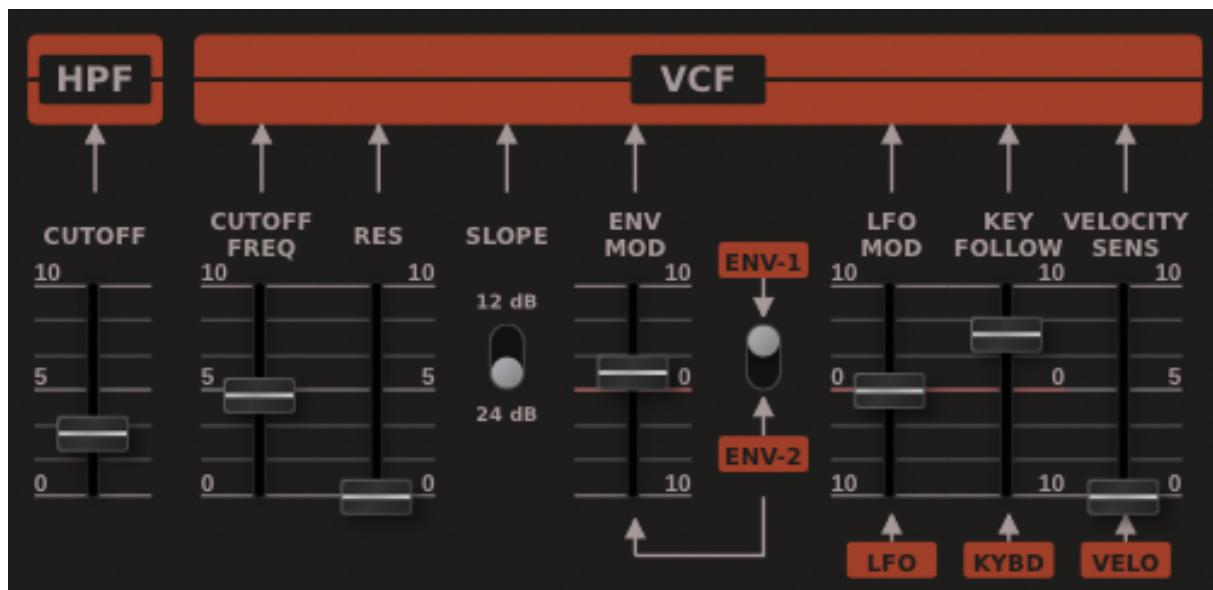
SLOPE: You can select between 12dB and 24 dB.

ENV MOD: Envelope modulation. Both positive and negative values are possible. You can select between ENV-1 and ENV-2 as the source.

LFO MOD: LFO modulation. Both positive and negative modulation amounts are possible.

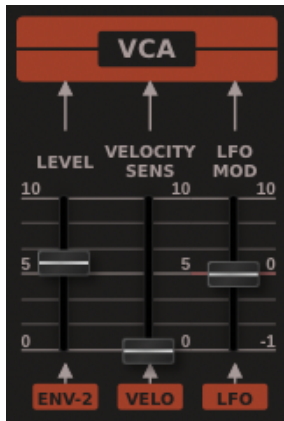
KEY FOLLOW: Adjusts how much the filter follows the pitch of the currently played keyboard note. Both positive and negative values are possible.

VELOCITY SENS: Adjusts how much the filter envelope follows the key velocity.



VCA

Voltage Controlled Amplifier. You can adjust the panel volume here.



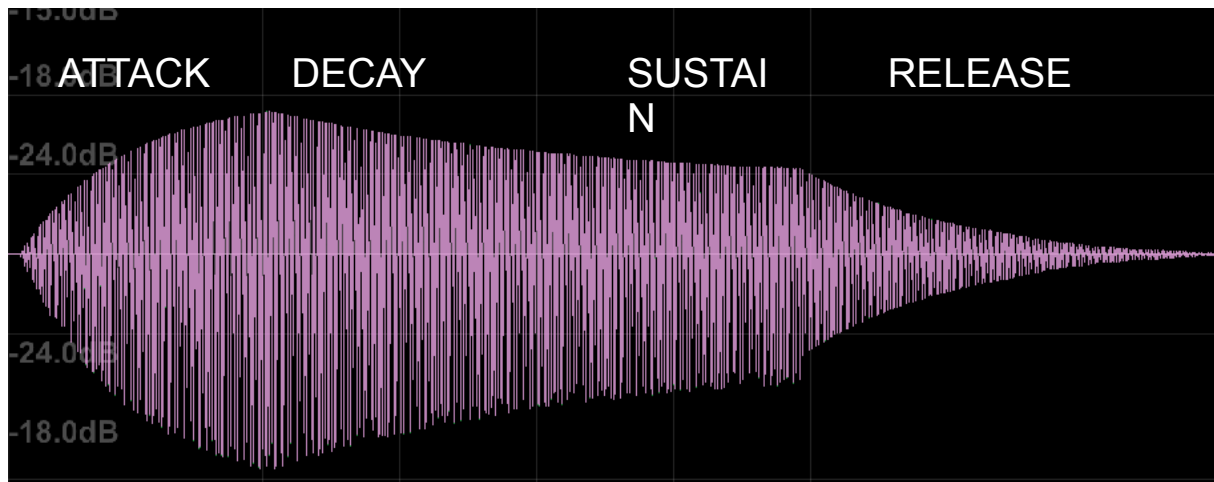
LEVEL: Sets the overall PANEL volume.

VELOCITY SENS: Adjusts how much the volume depends on the velocity of the played notes.

LFO MOD: Adjusts the amount of volume modulation by the LFO.

ENV-1 & ENV-2

This synth has a classic ADSR envelope. ENV-2 is hard wired to the volume envelope. ENV-1 and ENV-2 can be used for modulation. This is how a shaped Saw looks like in the oscilloscope:



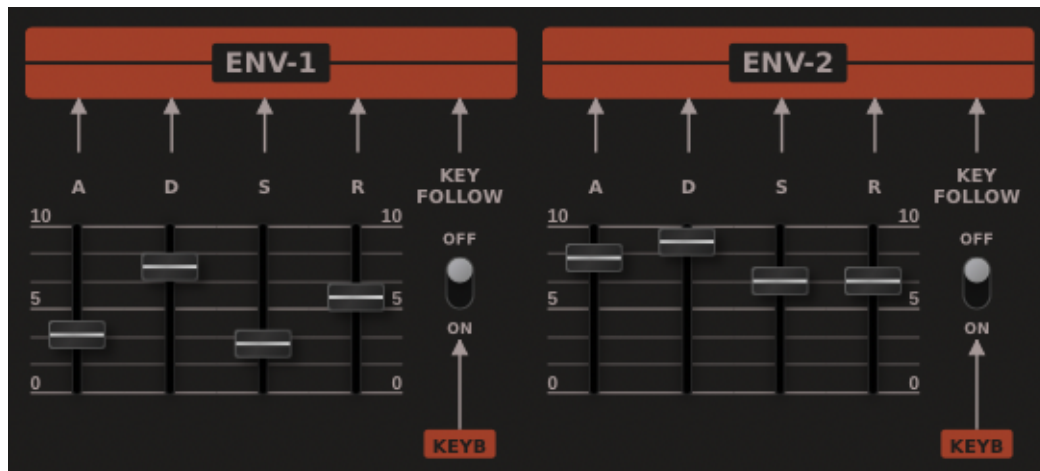
Attack is the time taken for the initial ramp up of the level from nil to peak, beginning when the key is pressed.

Decay is the time taken for the subsequent ramp down from the attack peak level to the designated sustain level.

Sustain is the level during the main section of the sound's duration, until the key is released.

Release is the time taken for the level to decay from the sustain level to zero after the key is released

KEY FOLLOW: When enabled, the envelope length also depends on the played key. Low keys will have longer envelope times.



PANEL Control

This section contains special settings that the original hardware does not have. This settings affect only the active panel.



MAIN TUNE: Detunes the current active panel.

MAIN PAN: Pans the current active panel.

MPE FILTER: Adjusts how much vertical movements on the MPE controller affects the filter cutoff frequency of the current active panel.

MPE VOLUME: Adjusts how much aftertouch controls the volume of the current active panel.

UNISON VOICES: Number of UNISON voices adjustable from 3 up to 8.

UNISON DETUNE: Adjusts how much these voices are detuned.

CALIBRATION: This settings can be used to calibrate the overall panel filter sound to get a more Juno 60-like filter sound for example. The Juno 60's filter (which uses the same filter chip) is more saturated and has more resonance.

VCO: Adjusts the VCO brightness.

DRIVE: Adjusts the filter saturation / drive.

RESO: Adds some more resonance up to the point of self oscillation.

ENV: Adjusts the decay roll-off time. Increasing the value leads to a slower roll-off.

MASTER SETTINGS



This section contains settings that affects both the Upper and Lower panels. (The Arpeggiator tempo can be set individually for each layer).

- VOLUME:** Main volume.
- BALANCE:** Balance between the two Panel's volumes.
- MASTER TUNE:** Overall fine tune for the synth.
- OCTAVE:** Change overall octave (+-4 octaves)
- ARPEGGIO:** Arpeggiator settings.
- RATE:** Controls the Arpeggiator tempo.
- INT:** Internal tempo ranges from 0.5 up to 25 Hz
- EXT:** Host synced tempo.

The Arpeggiator supports different sync modes. These only work when **EXT** is enabled.

- TRIGGER:** The first played note triggers the Arpeggiator.
- HOST:** The Arpeggiator is synced to your sequencer's Transport.
- MIDI CLK:** MIDI CLK sync.
- EXT 16:** You send note-on events on MIDI Channel 16 to trigger the arpeggiator.



- PORTAMENTO:** Controls the duration of the portamento pitch change.
- TIME:** When enabled the pitch change always takes the same time for both small and big note offsets. Original modus is when disabled.
- UPPER ONLY:** Enables Portamento only for the UPPER panel. Only for non-overlapping notes.
- AUTO:** Legato mode. Portamento only works for overlapping notes.
- ON:** Portamento also when notes not overlapping.
- OFF:** Portamento is disabled.

VOICES: Set the maximal number of voices per panel.

- VCO, VCF:** Controls the amount the Pitch Wheel affects the oscillator pitch / filter.
- LFO VCO:** Controls how much the Mod Wheel affects the LFO VCO modulation intensity.
- LFO VCF:** Controls how much the Mod Wheel affects the LFO VCF modulation intensity.

SC (Service Control)



The service control dialog allows the user to detune the voices to simulate the detuning of the analog hardware devices.

This is an important part if you want to get the lively sound of analog devices. Chords also glue better if the cutoff is detuned for each voice for example, instead of having the resonance peak exactly at the same position. The same is valid for the envelope and the pitch tuning. This setting is saved within the preset.

It's possible to set this values randomly with the intensity knob and the random button.

MIDI LEARN

The plug-in also supports MIDI LEARN, we also recommend to use the hosts mechanism for this. But sometime this is easier for fast mapping to a hardware controller. The plug-in normally keeps the mapping when changing the preset as long as the preset does not have its own mapping.

It works as follows: Please stop the sequencer and make sure no other MIDI signals are sent to the plug-in before starting:

1. Enable MIDI LEARN
2. Move or click on a slider on the plug-in.
3. Move a hardware knob or slider with an assigned CC.
4. Disable MIDI LEARN or continue with step 2.

CLEAR: Deletes the current mapping data.

LOCK: Allows it to change the preset without losing or changing the mapping.

PANEL: In this mode MIDI automation affects the current selected and visible panel. When the upper panel is selected it controls the cutoff of the upper panel for example. If you change to the lower panel (select the lower panel in the UI), then it controls the cutoff of the lower panel.

This allows it to control both panels with one hardware controller. The selected panel and the panel mode will be saved within the preset and it is also safe to use that mode to automate the current selected panel.



You maybe change the preset with your mapping in the default preset to make sure it always loads if you create a new instance of the plug-in.



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