



Archetype Tim Henson X

Version 1.0.0 for Windows® and macOS®

User Manual

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02

Getting Started

New to plugins and have a lot of questions? This is your guide to the basics. Read on to learn what you need to start using your Neural DSP plugin.

Basic Requirements

Getting set up is very simple, but there are a few things you will need before you begin.

• Electric guitar or bass

The instrument you wish to use the plugin with, and an instrument cable.

• Computer

Any Windows® PC or Apple Mac® capable of multitrack audio processing. Make sure your machine meets the minimum required specifications:

macOS® minimum requirements

- Intel Core i3 Processor (i3-4130 / i5-2500 or higher)
- Apple Silicon (M1 or higher)
- 8GB of RAM or more
- macOS® 13 Ventura (or higher)

Windows® minimum requirements

- Intel Core i3 Processor (i3-4130 / i5-2500 or higher)
- AMD Quad-Core Processor (R5 2200G or higher)
- 8GB of RAM or more
- Windows® 10 (or higher)

• Audio Interface

An audio interface is a device that connects musical instruments and microphones to a computer via USB, Thunderbolt, or PCIe.

• Studio Monitors or Headphones

Once the instrument signal is being processed by the plugin, you need to hear it. Having the sound come out from the computer speakers is not recommended due to quality and latency issues.

• iLok License Manager App

[iLok License Manager](#) is a free app that allows you to manage all your plugin licenses in one place and transfer them between different computers.



400MB - 2GB of free storage space is required per plugin installed.



Our latest plugins require AVX support, a feature added by Intel “Ivy Bridge” and AMD “Zen” generations.



The Quad Cortex can be used as USB audio interface.



Internet connection is required to activate your license through iLok License Manager.



Supported DAWs

DAWs, short for “Digital Audio Workstations”, are music production software programs that have a comprehensive set of tools for recording, editing, and mixing digital audio.

All Neural DSP plugins include a **standalone app** version, meaning that you don’t need a DAW to use them. However, if you are planning on recording your playing, you will need to install your plugins to your DAW.

A complete installation setup will automatically install all the different plugin formats:

- **APP:** Standalone app.
- **AU:** Plugin format developed by Apple for use on macOS®.
- **VST2:** Multi-platform format compatible across multiple DAWs on both macOS® and Windows® devices.
- **VST3:** An improved version of the VST2 format that only uses resources during monitoring/playback. It’s also available on both macOS® and Windows® devices.
- **AAX:** Pro Tools native format. It can only be used on Avid Pro Tools.

Most DAWs automatically scan for new plugins upon launch. If you cannot find the plugins in your DAW’s plugin manager, manually rescan the plugin folder to locate the missing files.

Our plugins are compatible with a wide range of DAWs. Below is a list of the DAWs we have tested:

- **Ableton Live 12**
- **Pro Tools 2024**
- **Logic Pro 11**
- **Cubase 13**
- **Reaper 7**
- **Presonus Studio One 6**
- **Reason 12**
- **FL Studio 21**
- **Cakewalk by Bandlab**

Note that even if your DAW is not listed above, it might still work. If you encounter any compatibility issues, don’t hesitate to contact support@neuraldsp.com for further assistance.

Once your plugins are available in your DAW, create a new project, insert a new audio track, arm it for recording, and load the plugin onto the track.



You can also perform a custom installation where you can install only the formats you need.

If you didn’t install the required plugin format for your DAW during the setup, run the installer again and reinstall the missing format.

File Locations

Neural DSP plugins will be installed in default locations for each plugin format unless a different custom location is selected in the process.

• macOS®

By default, the plugin files are installed in the following directories:

- **AU:** [Macintosh HD/Library/Audio/Plug-ins/Components](#)
- **VST2:** [Macintosh HD/Library/Audio/Plug-ins/VST](#)
- **VST3:** [Macintosh HD/Library/Audio/Plug-ins/VST3](#)
- **AAX:** [Macintosh HD/Library/Application Support/Avid/Audio/Plug-ins](#)
- **Standalone App:** [Macintosh HD/Applications/Neural DSP](#)
- **Preset Files:** [Macintosh HD/Library/Audio/Presets/Neural DSP](#)
- **Settings Files:** [<User Folder>/Library/Application Support/Neural DSP](#)
- **Manual:** [Macintosh HD/Library/Application Support/Neural DSP](#)

• Windows®

By default, the plugin files are installed in the following directories:

- **VST2:** [C:\Program Files\VSTPlugins](#)
- **VST3:** [C:\Program Files\Common Files\VST3](#)
- **AAX:** [C:\Program Files\Common Files\Avid\Audio\Plug-Ins](#)
- **Standalone App:** [C:\Program Files\Neural DSP](#)
- **Preset Files:** [C:\ProgramData\Neural DSP](#)
- **Settings Files:** [C:\Users<Your profile>\AppData\Roaming\Neural DSP](#)
- **Manual:** [C:\Program Files\Neural DSP](#)



There are two “Library” folders on macOS®. The **main Library folder** is located in [Macintosh HD/Library](#).

To access the **User Library folder**, open a Finder window, click on the “Go” menu on top, hold down the Option key and click on “Library”.



By default, the **ProgramData** and **AppData** folders are hidden on Windows®.

While in the File Explorer, click on the “View” tab and uncheck the checkbox for “Hidden Items” to make these folders visible.

Uninstalling Neural DSP Software

To uninstall Neural DSP software on macOS®, delete the files manually in their respective folders.

On Windows®, Neural DSP software can be uninstalled either from the Control Panel or by selecting the “Remove” option from the setup installer.



Neural DSP Plugin files are available in 64-bit only.

License Activation

In order to use Neural DSP plugins, you will need an iLok account and the iLok license Manager application installed on your computer. iLok is completely free to use.

• Creating an iLok account

Follow these steps to create an iLok account:

- **Registration form:** Go to iLok’s account registration page and fill out the required fields in the registration form. Click on “Create Account” to finalize the registration.
- **Email Verification:** A confirmation email will be sent to the email address provided during registration. Open the confirmation email in your inbox and click on the verification link.

• iLok License Manager

Download [iLok License Manager](#) and install it on your computer. After that, open the app and login using your iLok account email address and password.

• Neural DSP Plugin Installer

Go to the [Neural DSP Downloads page](#) to get the plugin installer. Install the plugin by following the instructions on-screen.

• 14-Day Trial

After installing the plugin, open the standalone version or load it on your DAW. When the plugin interface opens, click on “Try”.



Download iLok License Manager from [here](#).



400MB - 1GB of free storage space is required per plugin installed.



If you get the popup message “Attempted to start the trial too many times. Please purchase a license to run the product”, open iLok License Manager, log in with your iLok account, right-click on your trial license and select “Activate”.



You will be asked to login to your iLok account. After logging in, the 14-day trial will be added to your iLok account automatically.

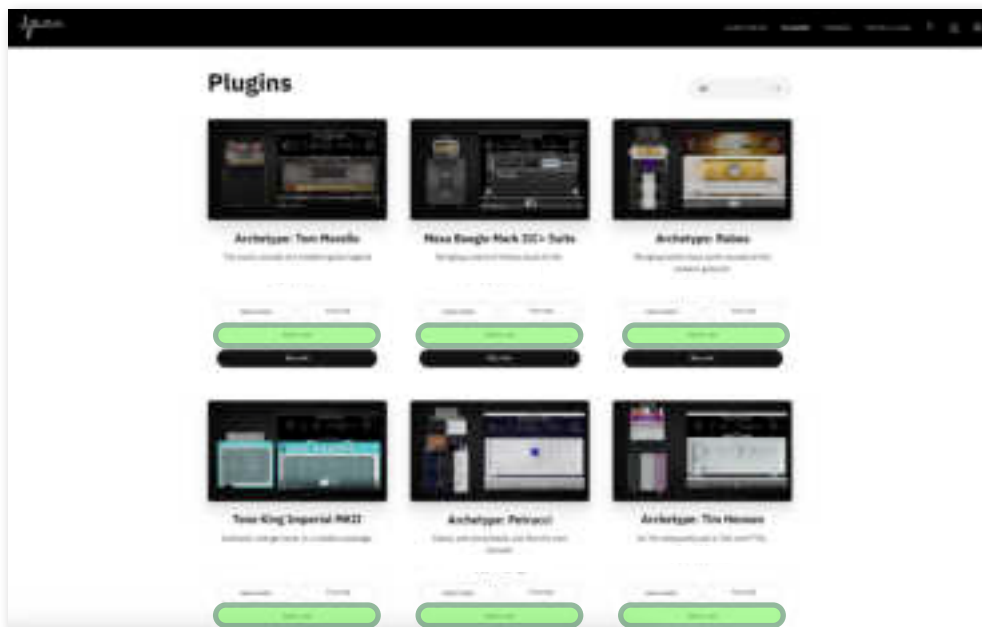
• Perpetual License

Before purchasing a license, make sure your iLok account is created and linked to your Neural DSP account. Additionally, make sure the iLok License Manager app is up to date.

Purchase a license by visiting the product page of the plugin you want to buy, adding it to your cart, and completing the steps for purchasing.



Link your iLok account to your Neural DSP account by entering your iLok username in your [account settings](#).



You do not need an iLok USB dongle to use Neural DSP plugins as they can be activated directly onto computers.

The purchased license will be deposited to your iLok account after the checkout automatically.

After installing the plugin, open the standalone version or load it on your DAW. When the plugin interface opens, click **“Activate”**.



A single license can be activated on 3 different computers at the same time as long as the same iLok account is used on all of them.

Licenses can be deactivated from computers that are not in use and transferred to other devices. This process can be repeated indefinitely.

Login to your iLok account when prompted and activate the license on your machine.

Your Perpetual License then will be activated.

Setting up your plugin

Once you have installed and activated your plugin, it's time to set up and start using it. To get started, launch the standalone app of the plugin and click on **SETTINGS** in the utility bar at the bottom of the plugin interface.

Use the following settings to optimize your plugin's performance and get the best possible tone out of it.

• Audio Device Type

All the audio drivers installed on your computer will be displayed here. For most audio recording applications on Windows®, **ASIO** is the preferred driver format to use. **CoreAudio** will be the best option on macOS®.

• Audio Device

Choose the audio interface that your instrument is connected to.

• Audio Input Channels

Select the interface input(s) you have plugged your instrument(s) into.

• Audio Output Channels

Select the interface output(s) that you use for monitoring the audio.

• Sample Rate

Set it to 48000 Hz (unless you specifically require a different sample rate).

• Audio Buffer Size

Set it to 128 samples or lower. Increase the buffer size to 256 samples or higher if you experience performance issues.

What is latency?

When monitoring plugins in real-time, you may experience a slight delay between playing a note on your instrument and hearing the sound through your headphones or studio monitors. This delay is called latency. Decreasing the buffer size reduces the latency, but demands more from your computer's processing power.

How do I change these settings in a DAW audio session?

To set up audio settings for plugins within a DAW, open the audio settings section of your DAW's preference menu. From there, you can select your audio interface, set the I/O channels, adjust the sample rate and buffer size.

SETTINGS



Knobs and Sliders are controlled with the mouse.

Click-and-drag a Knob up to turn it clockwise. Moving the cursor down will turn the Knob counterclockwise. Double-click to recall default values.

To fine-tune values, hold down the "Option" (macOS®) or the "Control" key (Windows®) while dragging the cursor.



Click on switches to toggle their state.

Some switches include LED indicators that light up when a parameter is engaged.



Check our [Knowledge base](#) if you need more information about the process of setting up and optimizing your plugin for the best possible performance and sound quality.



The SETTINGS tabs is available on the Standalone app only.

03

Plugin Components

Here is a rundown of the sections of Archetype Tim Henson X.

• Pre Effects Section

- Boost Pedal
- Compressor Pedal
- Overdrive Pedal

• Amp Section

- “ROSES” - Clean/Acoustic Amplifier
- “CHERUBS” - Rhythm Amplifier
- “PINK” - Lead Amplifier

• Cab Section

- Factory Microphones
- Dual Custom IR slots
- Room Reverb module

• Pitch Section

- “MULTIVOICER” - Intelligent Pitch Shifter Pedal

• EQ Section

- 9-Band EQs with High-pass and Low-pass filters

• Post Effects Section

- Chorus Pedal
- Delay Pedal
- Reverb Pedal

• Global Features

- Input Gate
- Transpose
- Doubler
- Preset Manager
- Tuner
- Metronome
- MIDI Support



Pre Effects Section

This section consists of three effects in series which can be used either separately or combined.



• BOOST Pedal

- **GAIN Knob:** Adjusts the input gain of the pedal.
- **LEVEL Knob:** Adjusts the output level of the pedal.
- **BASS & TREBLE Knobs:** Control the amount of low and high frequencies, respectively.
- **BYPASS Stomp Switch:** Click to activate/deactivate the pedal.

• COMPRESSOR Pedal

- **COMP Knob:** Adjusts the amount of compression applied to the signal. The higher the value, the more compressed the signal is.
- **LEVEL Knob:** Adjusts the output level of the pedal.
- **ATTACK Switch:** Toggles between slow and fast attack speed.
- **BYPASS Stomp Switch:** Click to activate/deactivate the pedal.

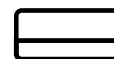


Use the LEVEL knob to compensate for the volume-loss caused by the compression.

• OVERDRIVE Pedal

- **DRIVE Knob:** Adjusts the amount of distortion applied to the signal.
- **LEVEL Knob:** Adjusts the output level of the pedal.
- **TONE Knob:** High-frequency control.
- **BYPASS Stomp Switch:** Click to activate/deactivate the pedal.

Amp Section



This section includes the amplifier devices.



• “ROSES” - Clean/Acoustic Amplifier

- **GAIN Knob:** Input gain control.
- **BASS, MIDDLE & TREBLE Knobs:** Amplifier’s tonestack. 3-Band equalizer.
- **PRESENCE Knob:** High-frequency boost control.
- **BLEND Knob:** Direct input mix control. The DI signal introduced by the BLEND knob is both compressed and equalized, designed to emulate an acoustic effect.
- **OUTPUT Knob:** Controls the overall output volume of the amplifier.
- **POWER Button:** Click to bypass/enable the Amp section.



“ROSES” Amp Behavior

The acoustic amplifier is not connected to any Cab unlike the other amplifiers.

When this amplifier is selected, the Cab section is disabled and hidden from the user interface.



• “CHERUBS” - Rhythm Amplifier

- **GAIN Knob:** Input gain control.
- **CHANNEL Switch:** Toggles between channels 1 and 2.
- **BASS, MIDDLE & TREBLE Knobs:** Amplifier’s tonestack. 3-Band equalizer.
- **PRESENCE Knob:** Adjusts the amount of high frequencies in the power amp stage.
- **OUTPUT Knob:** Controls the overall output volume of the amplifier.
- **POWER Button:** Click to bypass/enable the Amp section.



The OUTPUT knobs control the overall volume of the amps without affecting their tone.



- **“PINK” - Lead Amplifier** 🔥

- **GAIN Knob:** Input gain control.
- **BASS, MIDDLE & TREBLE Knobs:** Amplifier’s tonestack. 3-Band equalizer.
- **PRESENCE Knob:** Adjusts the amount of high frequencies in the power amp stage.
- **MASTER Knob:** Power amp’s gain control.
- **OUTPUT Knob:** Controls the overall output volume of the amplifier.
- **POWER Button:** Click to bypass/enable the Amp section.

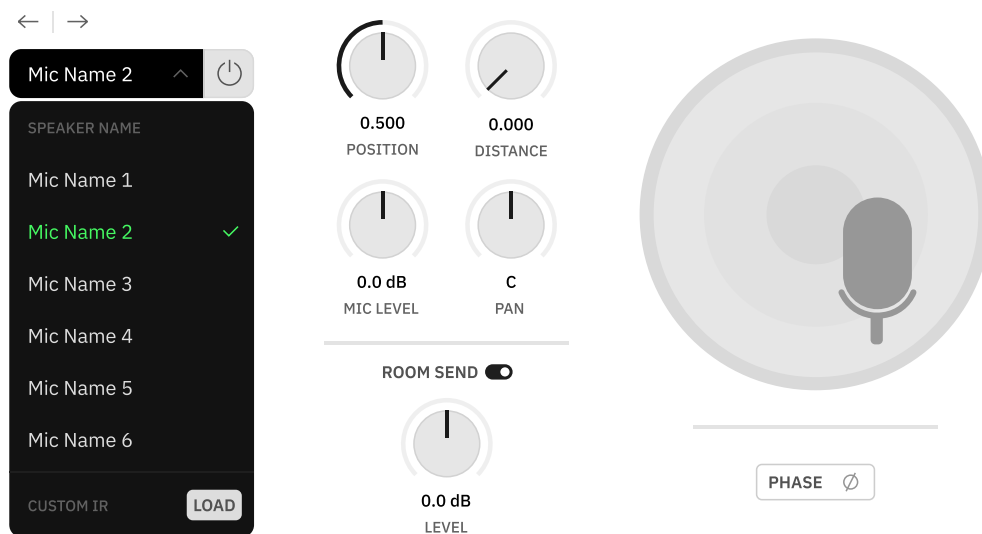


Amp Selector

Switch the Amps by clicking the icons at the bottom of the plugin window. This will also switch the EQs.

Cab Section

A comprehensive cabinet simulation module that features virtual mics which can be positioned around the speakers. Additionally, in this section, you can load your own Impulse Response files.



• IR Loader Controls

- **IR Combo Box:** Dropdown menu for selecting factory microphones, speaker cabinets, or loading your own IR files.
- **LEFT & RIGHT Navigation Arrows:** Click to cycle through factory microphones and custom IRs.
- **BYPASS Button:** Click to bypass/enable the selected microphone or custom IR.
- **POSITION & DISTANCE Knobs:** Control the position and distance of the factory microphones around the speaker cone.
- **MIC LEVEL Knob:** Controls the volume level of the selected IR.
- **PAN Knob:** Controls the output panning of the selected IR.
- **ROOM SEND Switches:** Click to activate/deactivate the room reverb send per microphone.
- **LEVEL Knobs:** Send controls. Determine how much signal is sent to the room reverb module.
- **PHASE Button:** Inverts the phase of the selected IR.

What is an Impulse Response?

An Impulse Response is the measurement of a dynamic system reacting to an input signal. This information can be stored in WAV files which can be used to recreate the sound of spaces, reverberations, and instrument speakers.

How can I load custom IR files on Neural DSP plugins?

Click on the **IR Combo Box** and select **LOAD** next to the “Custom IR” field. After that, use the browser window to search and load your custom IR file. Once the IR is loaded, you can adjust its LEVEL, PAN, and PHASE.



Microphones' position can also be controlled by dragging the microphones to the desired spot with the mouse. The POSITION and DISTANCE knobs will reflect these changes accordingly.



POSITION and DISTANCE knobs are disabled when loading custom IR files.



The Cab section features a Room Reverb module whose SEND levels can be adjusted independently per microphone.



The path location of the latest custom IR used is remembered by the plugin.

User presets that use custom IRs also save this path data, allowing you to easily recall them later.

Pitch Section



• “MULTIVOICER” - Intelligent Pitch Shifter Pedal

Header Controls

TUNING 440.0 Hz KEY **A** SCALE **NATURAL MINOR** VOICING **<SELECT CHORD>** QUANTIZE **OFF** **ON**

- **TUNING Selector:** Adjusts the reference pitch of the voices (400-480Hz).
- **KEY Combo Box:** Determines the key of the musical scale selected.
- **SCALE Combo Box:** Determines the musical scale.
- **VOICING Combo Box:** Provides quick access to popular chord voicings. Selecting a voicing will automatically adjust the PITCH and ACTIVE settings for all the voices. The VOICING Combo Box is disabled when a chromatic scale is selected.
- **QUANTIZE Switch:** Activate to automatically correct the pitch of the voices to their closest notes within the currently selected key and scale, preventing glissandos between notes.

Voice Controls

VOICE 1	INTERVAL	LEVEL	DETUNE
	SEMITONES	PAN	DELAY
	-3RD	-6.0 dB	25 cents
	-10 st	50 L	170 ms

- **VOICE ACTIVE Switch:** Click to activate/deactivate a voice.
- **VOICE PITCH Slider:** Adjusts the pitch of a voice up or down by up to 24 semitones. Values are shown as semitones for chromatic scales and as musical intervals for major and minor scales.
- **VOICE LEVEL Slider:** Adjusts the output level of a voice.
- **VOICE PAN Slider:** Adjusts the output panning of a voice.
- **VOICE DETUNE Slider:** Adjusts a voice pitch up or down by up to 50 cents.
- **VOICE DELAY Slider:** Delays a voice by up to 400 milliseconds.



The “MULTIVOICER” is an intelligent pitch shifter device that adds up to four voices, higher or lower in pitch, to the direct input signal.

It performs best with monophonic sources, as playing multiple notes while the pedal is engaged may cause the voices pitch to respond unpredictably.



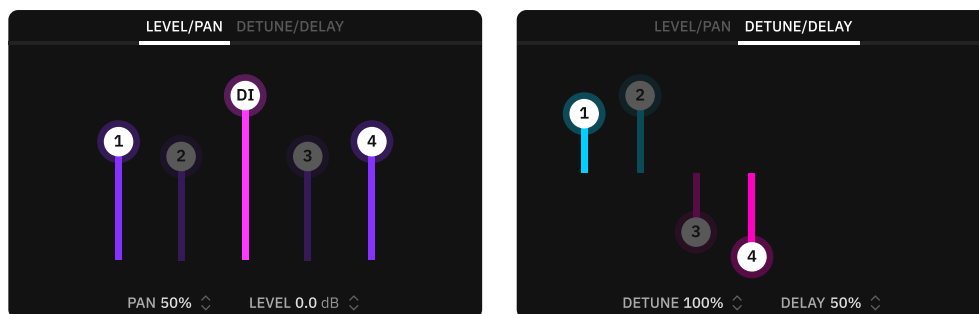
The Voicing Library

“Voicing” refers to the arrangement of musical notes in a chord structure. The Voicing Library provides a wide collection of popular chord voicings:

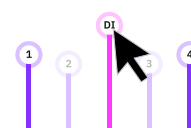
- **TRIADS:** Set of three notes stacked in consecutive thirds.
- **SEVENTH CHORDS:** Combination of a triad and an interval of a seventh.
- **DROPS:** Voicings created by dropping notes of a chord one octave down.
- **TENSIONS:** Notes that serve as extensions of a seventh chord.
- **TONE CLUSTERS:** Set of notes stacked in consecutive semitones.
- **OTHERS:** A selection of suspended voicings, power chords, and unisons.



Voice Arranger



- **PARAMETER VIEW Tabs:** Click to switch between LEVEL/PAN and DETUNE/DELAY parameters displayed on the screen.
- **DI Voice Token:** Adjusts the direct input level. Double-click to reset it to its default value.
- **1-4 Voice Tokens:** Adjust the panning, level, detuning, and delay of the voices. Double-click to reset them to their default values or right-click to activate/deactivate them.
- **GLOBAL PAN Slider:** Sets the maximum panning range for all voices.
- **GLOBAL LEVEL Slider:** Sets the maximum output level range for all voices.
- **GLOBAL DETUNE Slider:** Sets the maximum detuning range for all voices.
- **GLOBAL DELAY Slider:** Sets the maximum delay range for all voices.



Voice Tokens

Click-and-drag voice tokens across the voice arranger screen to adjust their panning, level, detuning, and delay values.

Bottom Controls



- **UNISONS Knob:** Increase to add unisons to each active voice.
- **WIDTH Knob:** Stereo spread control for the unisons. This control is disabled when the UNISONS knob is at 0%.
- **TONE Knob:** Low-pass filter. Decrease to remove high frequencies from the voices.
- **OUTPUT Knob:** Adjusts the output level of the Multivoicer.

Stomp Controls



- **MIDI Stomp Switch:** Click to toggle the MIDI Mode.
- **ENGAGE Stomp Switch:** Click to bypass/enable the Multivoicer.



Unisons

The UNISONS knob creates copies of the active voices, slightly delayed by a few milliseconds to create a phasing effect.



MIDI Mode

In this mode, incoming MIDI notes are automatically assigned to the voices.

VOICE 1	VOICE 2	VOICE 3	VOICE 4
C5	-	E5	F#5

Up to four notes can be assigned simultaneously.



EQ Section



This section includes a 9-Band equalizer per amplifier, giving you precise control over different frequency ranges.



EQ Selector

Switch the EQs by clicking the icons at the bottom of the plugin window. These icons will also change the Amps.

9-Band Graphic EQs

- **FREQUENCY Sliders:** Each slider adjusts the gain of a specific range of frequencies (Bands). Click-and-drag the sliders up or down to increase or decrease their volume +/- 12dB.
- **HPF Knob:** Sets the cutoff frequency of the high-pass filter. Increase to remove low frequencies.
- **LPF Knob:** Sets the cutoff frequency of the low-pass filter. Decrease to remove high frequencies.
- **POWER Switch:** Click to bypass/enable the equalizer.



Post Effects Section



This section consists of three time-based effects modules in series, which can be used either separately or combined.



• CHORUS Pedal

- **MIX Knob:** Controls the amount of chorus effect that is added to the direct input signal.
- **BYPASS Stomp Switch:** Click to activate/deactivate the pedal.

• DELAY Pedal

- **MIX Knob:** Controls the amount of delay effect that is added to the direct input signal.
- **SYNC Switch:** Toggles between the following three states:
 - **FREE:** The delay repeats will follow the internal delay time (MS) set by the TIME knob.
 - **DAW/APP:** The delay repeats will sync to the host tempo value (BPM) following the musical subdivisions set by the TIME knob.
 - **TAP:** The delay repeats will sync to the TAP value (BPM) following the musical subdivisions set by the TIME knob.
- **MODE Switch:** Click-and-drag to switch between NORMAL, WIDE, and PING PONG modes.
- **FEEDBACK Knob:** Sets the amount of delay repetitions. The higher the value, the more repeats.
- **LOW CUT Knob:** Sets the cutoff frequency of the high-pass filter. Increase to remove low frequencies.
- **TIME Knob:** Set the delay time in either milliseconds or musical subdivisions depending on the SYNC switch's position.
- **AMOUNT Knob:** Adjusts the amount of effect added depending on the TYPE selected. The control label will cycle depending on the effect TYPE selected (SATURATION, DOWNSAMPLING, AMOUNT).
- **HIGH CUT Knob:** Sets the cutoff frequency of the low-pass filter. Decrease to remove high frequencies.
- **LCD Display:** Displays the current delay settings.
- **TAP TEMPO Button:** Controls the delay time by clicking. The delay time value is set as the interval between the last two clicks.
- **ENGAGE Stomp Switch:** Click to activate/deactivate the pedal.



Delay Time Range

The Delay's TIME ranges from 10ms to 3000ms when unsynced and from 1/64T to 1/1D when synced to the internal BPM.



Delay Modes

- **NORMAL:** The Delay's left and right channels have the same time settings.
- **WIDE:** Expands the stereo image of the delay's output.
- **PING PONG:** The delay signal bounces back and forth between left and right channels.

Delay Effect Types

- **MODERN:** Digital Delay with saturation control.
- **VINTAGE DIGITAL:** Lo-fi Digital Delay with downsampling control.
- **DIFFUSION:** Digital Delay with scalable diffusion control.



The Delay's LOW CUT knob ranges from 20 Hz to 800 Hz.



The Delay's HIGH CUT knob ranges from 1 kHz to 16 kHz.



• REVERB Pedal

- **MIX Knob:** Controls the amount of reverb effect that is added to the direct input signal.
- **DECAY Knob:** Determines the length of the reverb decay envelope.
- **LOW CUT Knob:** Sets the cutoff frequency of the high-pass filter. Increase to remove low frequencies.
- **HIGH CUT Knob:** Sets the cutoff frequency of the low-pass filter. Decrease to remove high frequencies.
- **SHIMMER Switch:** Click to activate/deactivate the Shimmer effect.
- **BYPASS Stomp Switch:** Click to activate/deactivate the pedal.



Delay SYNC Switch

On the Delay's LCD screen, click the DELAY TIME value (FREE) and TEMPO value (TAP) to enter custom values with the keyboard.

Additionally, click-and-drag them up and down to increase or decrease their values.



Reverb Shimmer Effect

The "Shimmer" effect is produced by layering a pitched-up tail of reverb on top of the direct input signal.



The Reverb's LOW CUT knob ranges from 50 Hz to 700 Hz.



The Reverb's HIGH CUT knob ranges from 1 kHz to 16 kHz.



04

Global Features

Familiarize yourself with the user interface, which is broken down into different sections accessible by icons at the top and bottom of the plugin interface.

Section Modules

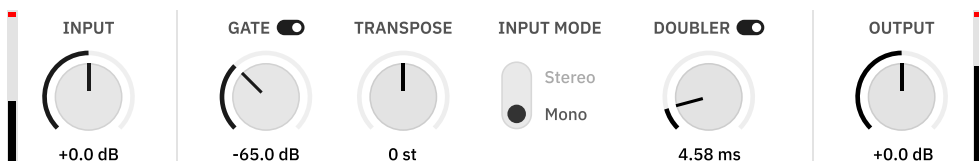
The plugin devices are organized in different sections at the top of the plugin interface.



Click over a section to open it.

Global Audio Controls

Set of parameters and features that allow you to customize your tone.



- **INPUT Knob:** Adjusts the level of the signal being fed into the plugin.
- **GATE Switch:** Click to activate/deactivate. The noise gate helps to reduce unwanted noise or *hum* in your signal.
- **THRESHOLD Knob:** Dial up the Knob to increase the threshold. The noise gate reduces the level of the audio signal when it drops below the set threshold value.
- **TRANSPOSE Knob:** Transposes the signal up or down in pitch by a constant interval (+/-12 semitones). Use it to easily change the tuning of your instrument. The transpose module is bypassed at its default position (0 st).
- **INPUT MODE Switch:** Click to toggle between MONO and STEREO modes. The plugin is able to process a stereo input signal. The plugin will require double the resources while in STEREO mode.
- **DOUBLER Switch:** Click to activate the doubler effect. It duplicates your signal to simulate a larger stereo image (Disabled in STEREO INPUT MODE).
- **SPREAD Knob:** Sets the time offset between both sides of the stereo image created by the doubler (3 to 20 milliseconds). The higher the value, the wider the stereo image is.
- **OUTPUT Knob:** Adjusts the level of the signal the plugin feeds out.



Right-click or double-click on any section to bypass it.



Red clipping indicators will inform you whenever the I/Os are fed beyond the maximum peak level. The indicators last 10 seconds. Click anywhere on the meters to clear the Red status.



GATE

Increase the **GATE** threshold to *tighten up* your signal by creating a more defined and articulated tone, especially when playing high-gain tones.

Please note that if the threshold is set too high, sustained notes may be prematurely cut off, resulting in shorter sustain. The threshold should be set to a level that cuts out the noise you want to eliminate, but doesn't affect the tone or feel of your playing.

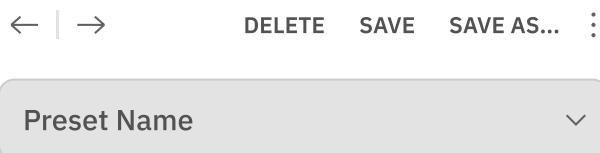
DOUBLER

The **DOUBLER** module works by creating a copy of the signal just before the Post FX section of the plugin. This duplicated signal is randomly delayed by a few milliseconds, within the range specified by the **SPREAD** knob, creating a stereo effect.

Preset Manager

A Preset is a saved configuration of settings and parameters that can be recalled instantly. Neural DSP Factory Presets are an excellent starting point for your tones. After loading a Preset, you can fine-tune the parameters across the different sections of the plugin to create a new tone that suit your needs.

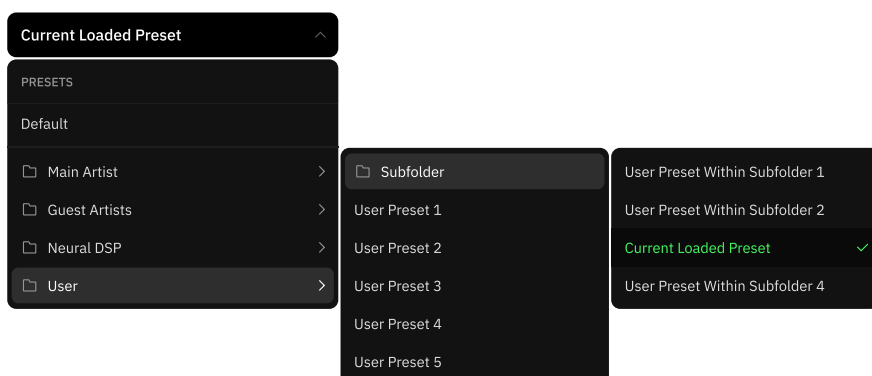
Presets you make can be organized into folders and subfolders, making it easier to find and manage them.



- **PRESET Combo Box:** Preset browser. Click to open a dropdown list of all the Presets available.
- **LEFT & RIGHT Navigation Arrows:** Click to cycle through the Presets.
- **DELETE Button:** Click to delete the active Preset (Factory Presets cannot be deleted).
- **SAVE Button:** Click to update a saved Preset with the latest changes.
- **SAVE AS... Button:** Click to save your current configuration as a new User Preset.
- **CONTEXTUAL Button:** Click to access more features:



- **IMPORT Button:** Click to import a Preset file from custom locations. Use the browser window to search and load the Preset file.
- **RESET Button:** Click to make all the parameters recall their default values.
- **LOCATE FILE Button:** Click to access the Preset folder.

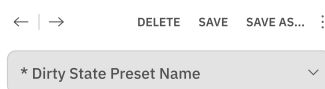


What is an XML file?

XML, short for Extensible Markup Language, lets you define and store data in a shareable manner. Neural DSP presets are stored as encrypted XML files in your computer.



The INPUT MODE, TUNER, METRONOME, and MIDI Map settings are not part of the Preset data, meaning that loading a Preset will recall all the parameters but the ones mentioned above.



An asterisk appears to the left of the Preset name whenever an active Preset has unsaved changes.



You can choose to install presets when installing the plugin. Click on the magnifying icon at the upper-right corner of the USER tab to access the Neural DSP Preset folder:

macOS®

[Macintosh HD/Library/Audio/Presets/Neural DSP](#)

Windows®

[C:\ProgramData\Neural DSP](#)

Subfolders created inside the main Preset folder will show up in the Preset Manager the next time you open the plugin.

Utility Bar

Quick access to useful tools and global settings.



- **TUNER Tab:** Click to open the Tuner interface.
- **MIDI Tab:** Click to open the MIDI Mappings window.
- **TAP Button:** Controls the standalone global tempo by clicking. The tempo value is set as the interval between the last two clicks.
- **TEMPO Button:** Displays the current standalone app's global tempo value. Click to enter a custom BPM value with the keyboard. Click-and-drag them up and down to increase or decrease the BPM value respectively.
- **METRONOME Tab:** Click to open the Metronome interface.
- **SETTINGS Tab:** Click to open the audio settings. MIDI devices can be assigned from this menu.
- **DEVELOPED BY NEURAL DSP Tab:** Click to access extra information about the plugin (Version, Store shortcut, etc).
- **WINDOW SIZE Button:** Click to resize the plugin window to three fixed sizes (Small, Medium & Large). The latest window size used is recalled upon opening new instances of the plugin.



The TAP TEMPO, METRONOME, and SETTINGS features are available on the Standalone app only.



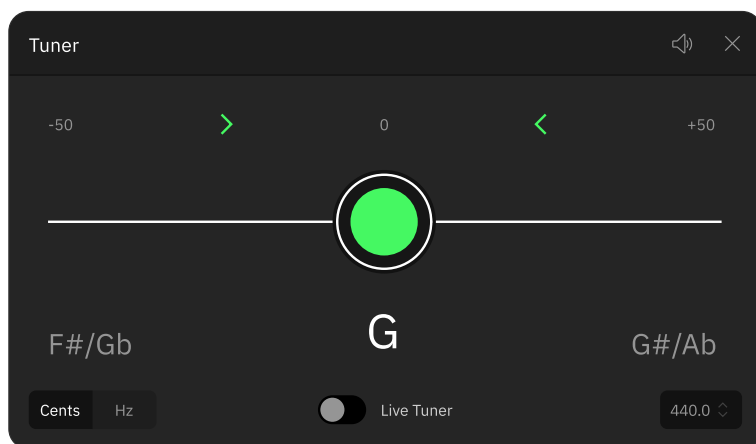
Right-click anywhere on the plugin interface to access the WINDOW SIZE menu.



Drag the edges and corners of the plugin window to continuously resize it.

Tuner

Both standalone and plugin versions feature a built-in chromatic tuner. It works by detecting the pitch of the note that is being played and then displaying it on the screen.



The indicator light moves with the pitch of the note. If the input is flat, it moves towards the left, and if it's sharp, it moves towards the right. When the pitch is in tune, the indicator will turn green.

- **TUNING Display:** Displays the note that is being played and its current pitch.
- **MUTE Button:** Click to mute the DI signal monitoring. This setting is recalled upon opening new instances of the plugin.
- **MODE Switch:** Toggles the pitch value between Cents and Hz. This setting is recalled upon opening new instances of the plugin.
- **LIVE TUNER Switch:** Click to enable/disable the Live Tuner in the Utility Bar.
- **FREQUENCY Selector:** Adjusts the reference pitch (420-460Hz).

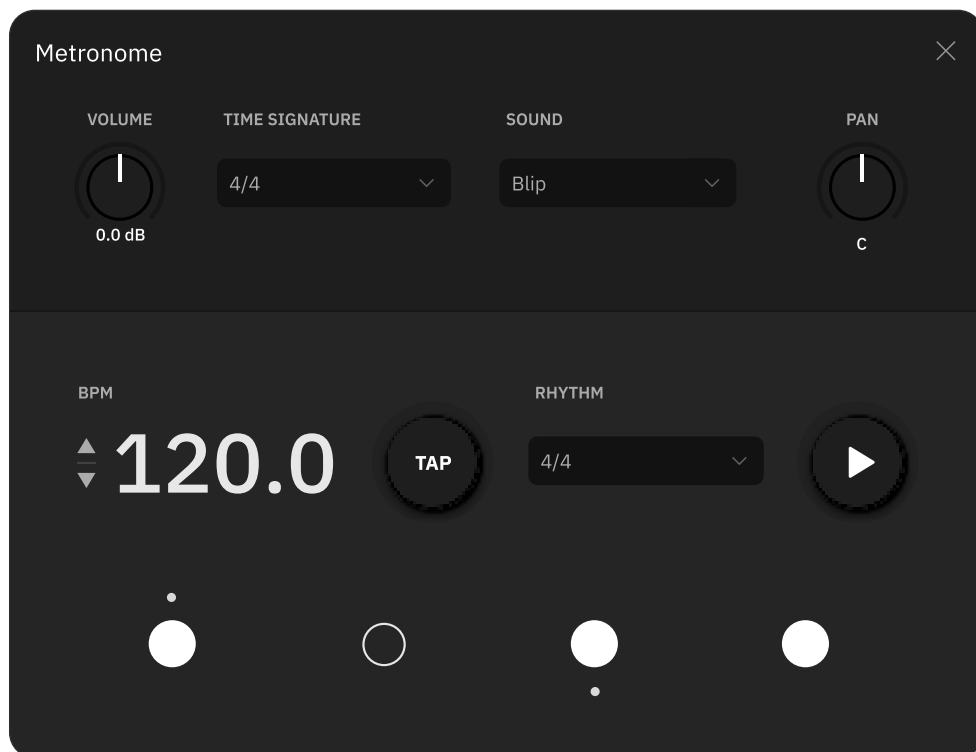


CMD/CTRL + Click on the TUNER tab in the Utility Bar to toggle the Live Tuner.



Metronome

The standalone app features a built-in Metronome. It works by producing a steady pulse to help you to practice and play in time.



Click on the play/stop button in the utility bar to control the metronome's playback without opening its interface.

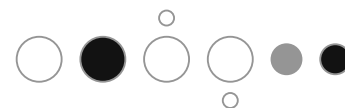


Closing the metronome interface will not stop its playback. Changing presets does not stop the metronome playback either.

- **VOLUME Knob:** Adjusts the output level of the metronome's playback.
- **TIME SIGNATURE Combo Box:** Click to navigate through the different time signatures, including compound and complex variations. Selecting a time signature will change the order and musical accent of the beats.
- **SOUND Combo Box:** Click to navigate through the sound set. Selecting a sound will change the sound of the beats.
- **PAN Knob:** Adjust the output panning of the metronome's beats.
- **UP & DOWN Arrows:** Click them to change the beat tempo (40 - 240 BPM).
- **BPM Value:** Displays the current beat tempo. Click-and-drag it up and down to increase or decrease the BPM value (40 - 240 BPM).
- **TAP Button:** Controls the metronome tempo by clicking. The BPM value is set as the interval between the last two clicks.
- **RHYTHM Combo Box:** Determines how many pulses can be heard per beat.
- **PLAY/STOP Button:** Click to start/stop the metronome playback. MIDI assignable.
- **BEAT LEDs:** Toggleable beats that can be customized by clicking. They offer visual feedback according to the current tempo, subdivisions, and accents selected.



The TAP Button also affects the standalone app's global tempo.



Click on the beats to cycle through different accents. Right-click on the beats to open their accent context menu.

MIDI Support

MIDI, short for Musical Instrument Digital Interface, is a protocol that allows communication between computers, musical instruments, and MIDI-compatible software.

Neural DSP plugins can be controlled by external MIDI devices and DAW commands. This allows you to connect MIDI controllers such as footswitches and expression pedals to control parameters and UI components within the plugin.

• Connecting a MIDI controller to your computer

There are many types of MIDI devices in the market. They can be connected via USB, MIDI Din or Bluetooth.

USB MIDI devices

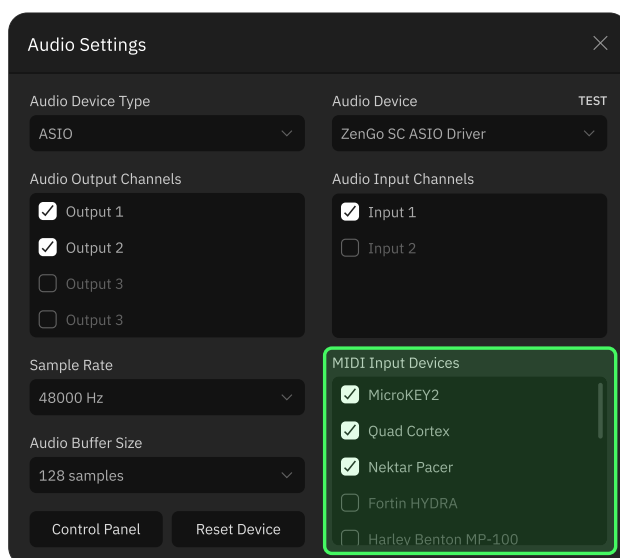
USB devices are very straightforward to use since they are plugged into a USB port on your computer. Follow these steps to connect a USB MIDI device to your computer:

- **Step 1:** Connect the USB cable from the MIDI controller to an available USB port on your computer.
- **Step 2:** Although most MIDI controllers are plug-and-play devices, some require driver software to be installed before they can be used. Double-check the user manual for your specific controller to see if this is necessary.
- **Step 3:** Once your MIDI controller is connected to your computer, check that it is recognized by your plugin standalone app. Click on **SETTINGS** in the utility bar and check if the controller appears in the **MIDI Input Devices** menu.



Any MIDI device capable of sending CC (Control Change), PC (Program Change) or NOTE messages to your computer will be compatible with Neural DSP plugins.

SETTINGS



Click on the checkboxes to enable or disable MIDI devices in the standalone app's Audio Settings menu.

- **Step 4 (Optional):** To use MIDI controllers with a DAW, look for its MIDI settings menu and enable your MIDI controller as a MIDI Input device.



Non-USB MIDI devices

To connect a non-USB MIDI device to your computer, you will need an audio interface with a MIDI input or a separate MIDI interface. Follow these steps to connect a non-USB MIDI device to your computer:

- **Step 1:** Connect the MIDI Out port on your MIDI controller to a MIDI In port on your audio or MIDI interface using a MIDI cable.
- **Step 2:** Once your MIDI controller is connected to your computer, check that it is recognized by your plugin standalone app. Click on **SETTINGS** in the utility bar and check if the controller appears in the **MIDI Input Devices** menu.
- **Step 4 (Optional):** To use MIDI controllers with a DAW, look for its MIDI settings menu and enable your MIDI controller as a MIDI Input device.

• “MIDI Learn” feature

Using the “MIDI Learn” function is the quickest and easiest way to map MIDI messages on your plugin.

To use the “MIDI Learn” function, right-click a parameter that you wish to control and click **Enable MIDI Learn**. Then, press the button or move the pedal/slider on the MIDI controller that you want to use to control that parameter. The plugin will then automatically assign the button or pedal to the chosen parameter. This streamlined process eliminates the need for manually mapping MIDI messages.

Follow these steps to assign MIDI messages via the “MIDI Learn” feature:

- **Step 1:** Ensure that your MIDI controller is properly connected to your computer and recognized by your plugin. On the plugin standalone app, click on **SETTINGS** in the utility bar and check if the controller appears in the **MIDI Input Devices** menu. If you are using the plugin in a DAW, make sure that the MIDI controller is set as the MIDI Input and Output device in your DAW settings.
- **Step 2:** Right-click on any parameter that you want to map to a MIDI message and select “**Enable MIDI Learn**”.



When the “MIDI Learn” mode is enabled, **the target parameter will be highlighted in green.**

Click on other parameter to change the target. Right-click a parameter and select “**Disable MIDI Learn**” to deactivate the “MIDI Learn” mode.



Non-USB MIDI devices usually have 5-Pin DIN or 3-Pin TRS connectors.



Making your Mac® a Bluetooth MIDI host

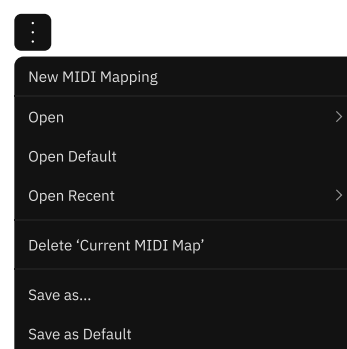
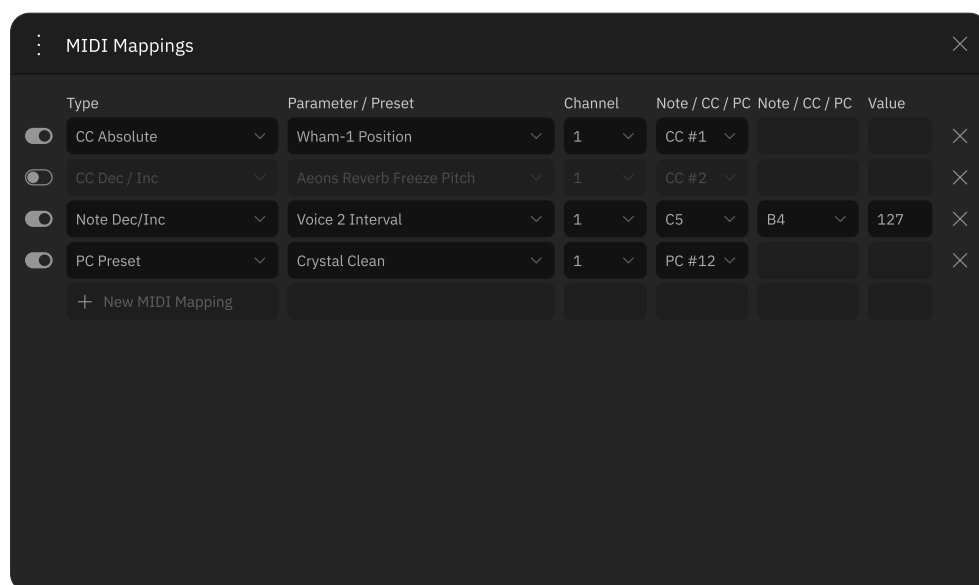
- Open the “Audio MIDI Setup” app.
- Click on [Window > Show MIDI Studio](#).
- In the MIDI Studio window, click on “Open Bluetooth Configuration...”.
- Set your Bluetooth MIDI device peripheral in pairing mode.
- Select the peripheral in the list of devices, then click “Connect”.

Once your Bluetooth MIDI controller is connected to your computer, check that it is recognized by your plugin standalone app. Click on **SETTINGS** in the utility bar and check if the controller appears in the MIDI Input Devices menu.

- **Step 3:** With “MIDI Learn” mode enabled, send a MIDI message from your controller by pressing the button or moving the pedal/slider that you want to control the parameter with.
- **Step 4:** All the assigned MIDI messages will be registered in the “MIDI Mappings” window in the utility bar.

• “MIDI Mappings” window

In the “MIDI Mappings” window, you can view and modify all the MIDI messages you have assigned to your plugin.



Use the MIDI Mappings’ context menu to save, load, and set as default your current MIDI Mappings configuration.

To add a new MIDI message, click on “**New MIDI Mapping**” located on the left side of the empty row. This will allow you to manually map a MIDI message to a parameter.

You can also save and load MIDI Mapping Preset **XML files**.

- **BYPASS Switch:** Click to bypass the MIDI mapping.
- **TYPE Combo Box:** Click to select the MIDI message type (CC, PC, & NOTE).
- **PARAMETER/PRESET Combo Box:** Click to select the plugin parameter/preset to be controlled by the MIDI message.
- **CHANNEL Combo Box:** Click to select the MIDI channel the MIDI message will use (16 channels per MIDI device).
- **NOTE/CC/PC Combo Box:** Click to select which MIDI NOTE, CC# or PC# is assigned to control the plugin parameter (Increase value when using “Dec/Inc” message).
- **NOTE/CC/PC Combo Box:** Click to select which MIDI NOTE, CC# or PC# is assigned to control the plugin parameter (Increase value when using “Dec/Inc” message).
- **VALUE Field:** Determines which parameter value will be recalled upon the MIDI message is sent.
- **X Button:** Click to delete the MIDI mapping.



MIDI Mapping Preset files are stored in the following folders:

macOS®

<User Folder>/Library/
Application Support/Neural DSP

Windows®

C:\Users\<Your Profile>\
AppData\Roaming\Neural DSP



“Absolute” mappings send values 0-127. “Relative” mappings send values <64 for decrement and >64 for increment.

“Fixed-range” knobs are absolute. “Endless” rotary knobs on your controller are relative.



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Support

Neural DSP Technologies is happy to provide professional technical support via email to all registered users, absolutely free of charge. Before contacting us, we recommend searching our support and knowledge base sections below to see if the answer to your question has already been published.

[SUPPORT](#)[KNOWLEDGE BASE](#)

If you cannot find a solution for your problem on the pages above, please contact **support@neuraldsp.com** to help you further.

Corporate Contact

Neural DSP Technologies OY
Merimiehenkatu 36 D
00150, Helsinki, Finland

neuraldsp.com