



CRYSTALS

User Guide

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1.1 About This Product

Thank you for your purchase of the Eventide Crystals plug-in. Crystals is a special effect that features twin reverse pitch changers with independently adjustable delays, feedback, and added reverb. For over 40 years, innovative effects like these have made Eventide an industry leader, and we are proud that they continue to be in demand today.

Thank you for your purchase, and before you forget, please take a few minutes to register online. This helps us keep you informed of any important software updates, and any special offers that may only be available to registered users.

Crystals is a classic Eventide effect combining twin reverse pitch shifters, delays, feedback, and reverb. It can create out-of-this-world climbing and cascading pitched delays, unique sounding reverbs, and granular effects for helping instruments stand out in a mix. Crystals can be used as Mono-In Mono-Out, Mono-In Stereo Out, or Stereo-In Stereo-Out (DAW dependent).

2.1 Navigating the Plug-In

The Crystals user interface is designed with an emphasis on user control and playability. Specifically, the large knobs are easily adjusted with an up-and-down motion of the mouse/finger, and all controls produce a smooth change in the audio, allowing you to glitchlessly shape the effect as you desire. Furthermore, the Ribbon allows you to program two settings for any combination of the controls and seamlessly morph to any sound between them. This combination of controls is intended to bring you as close to the experience of manipulating real hardware as is possible in a virtual environment.

2.2 Levels and Monitoring

IN	Controls the input level to the plug-in, between -60 dBfs and +12 dBfs. This parameter sets the input level for both the wet and dry signals.
OUT	Controls the output level of the plug-in, between -60 dBfs and +12 dBfs. This parameter sets the signal level after the mix control.
METERS	Indicates the audio level before and after the algorithm. These meters are after the IN control and OUT control, respectively, to aid in level adjustment.

2.3 Crystals Parameters

Mix	Wet/dry mix, where 100% is an all wet signal.
PITCH MIX	Controls the ratio of the level of PITCH A to PITCH B.
PITCH A	Controls the amount of pitch shift for voice A, in cents (1 cent = 1/100th of a semitone).
PITCH B	Controls the amount of pitch shift for voice B, in cents (1 cent = 1/100th of a semitone).
REVERSE DELAY A	Controls the length of the reverse time buffer for voice A in milliseconds, or in note values if TEMPO MODE is set to Sync or Manual.
REVERSE DELAY B	Controls the length of the reverse time buffer for voice B in milliseconds, or in note values if TEMPO MODE is set to Sync or Manual.
REVERB MIX	Sets the wet/dry mix of the reverb level, where 100 is an all wet signal. Note that this mix level is part of the wet signal path, so the global Mix control will still affect the amount of wet signal being heard overall.
REVERB DECAY	Sets the rate of decay for the reverb, in seconds.
FEEDBACK A	Controls the feedback level for voice A.
FEEDBACK B	Controls the feedback level for voice B.
TEMPO SYNC	<p>Tempo mode of the plug-in. When Off, the REVERSE DELAY A and REVERSE DELAY B amounts are in milliseconds.</p> <p>When in Sync or Manual mode, the REVERSE DELAY A and REVERSE DELAY B amounts are in note values, relative to either the tempo of the session (Sync), or a tempo which can be set by dragging the displayed tempo value up and down or tapping the TAP button (Manual).</p>

2.4 Performance Controls

USING THE RIBBON

The RIBBON allows the dynamic modification of several knobs at once, emulating what you would be able to do with real hardware in front of you. By programming left and right ranges for any knob, the RIBBON lets you morph between settings by clicking anywhere on the RIBBON and moving the electric arc back and forth.

To program the settings for the RIBBON, click on the white dot at the tip of any knob and drag it to the desired setting for the left hand side of the RIBBON. This will program the knob and draw a blue arc from the initial knob position to the new, programmed knob position. Now to adjust the knob position for the right side of the RIBBON, click on the blue dot at the opposite side of the arc and adjust it to the desired position for the right side of the RIBBON. If you wish to adjust the RIBBON programming for any knob, simply grab the dots at either end of the mark and adjust them to the desired position. To clear the RIBBON programming for any knob, simply right click on the dot at either end of its arc, or move the dots to be on top of each other.

Alternatively, the RIBBON can be programmed by pressing the button on the left or right side of the RIBBON, and then moving any knob to its desired RIBBON position for that side. The RIBBON programming can be cleared for all knobs by right clicking the button on either side of the RIBBON.

Additionally, the RIBBON is programmed to follow MIDI Continuous Control (CC) #1 messages (a.k.a. Modulation Wheel). This enables you to use the Modulation Wheel on a MIDI device to move many knobs at once.

ACTIVE

Turns the effect ON or OFF.

Active can be toggled via MIDI Continuous Control (CC) #2 messages. It will toggle when the CC goes from low (value < 64) to high (value \geq 64).

FLEX

Shifts both voices up one octave.

TAP

If TEMPO SYNC is in OFF mode, repeatedly pressing TAP will update the REV DLY A and REV DLY B values. If TEMPO SYNC is in MANUAL mode, pressing TAP will update the tempo value. If TEMPO SYNC is in SYNC mode, pressing TAP does nothing.

TAP can be controlled via MIDI Continuous Control (CC) #4 messages. Tap is triggered when the CC goes high (value ≥ 64), and will return to the off state when the CC is low (value < 64).

2.5 Preset Bar



Located at the top of the Crystals Plug-In, the Preset Bar lets you load and save presets, along with several other features.

When Crystals is installed, a library of settings is placed into the `<user>/Music/Eventide/Crystals/Presets` folder (Mac) or the `<user>/Documents/Eventide/Crystals/Presets` folder (Windows). These presets have a `.tide` extension and can be saved or loaded from the Crystals preset bar in any supported DAW.

In many DAWs there is an additional generic preset bar that saves DAW-specific presets to a separate location. We recommend saving your presets using the Eventide preset bar to ensure that your presets will be accessible from any DAW. You can also create sub-folders inside the preset folders, if you wish.

LOAD AND SAVE	Allows you to load a <code>.tide</code> preset that is stored anywhere on your computer. Save allows you to save a new preset to anywhere on your computer, but it is recommended that you place it somewhere in the <code><user>/Music/Eventide/Crystals/Presets</code> folder (if on Mac) or <code><user>/Documents/Eventide/Crystals/Presets</code> folder (if on Windows), so that it is accessible from the Preset dropdown. Note that you can create subfolders for your presets, for easier navigation and organization.
COMPARE	Allows you to toggle between the current settings and the last saved or loaded preset. This allows you to save or load settings that you like, tweak as you please, and return to the original settings for comparison.
Mix Lock	Enables a global mix value that will be the same on every preset that is loaded. This is especially useful on an effect return track where the mix should always be set to 100.
INFO	Opens this User Guide, for quick access from the Crystals plugin.
SETTINGS	Opens a drop-down menu with scaling settings for changing the overall size of the plugin.

We hope you enjoy the Crystals plug-in and put it to good use in all of your mixes. Please be sure to check out Eventide's other native plug-in offerings for more unique and interesting effects.

For further questions or support, head over to the [user forums](#).