



BLACKHOLE[®]

User Guide

Eventide[®]

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1.1 About This Product

Thank you for your purchase of the Eventide Blackhole® plug-in. Eventide Blackhole is a classic Eventide reverb effect capable of producing huge spaces and out-of-this-world soundscapes. 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.

Blackhole is a reverb algorithm on a truly galactic scale. Beginning life as a preset in the DSP4000, then later in the H8000, its lush sound and popularity encouraged us to feature it as one of the premier algorithms in Eventide's Space guitar pedal. Its soft attack and lingering, harmonic tail cause it to really shine on guitars, strings, and pads, but those same qualities also allow it to transform a drum track into something otherworldly. Enjoy, and don't be afraid to turn the knobs.

2.1 Navigating the Plug-In

The Blackhole user interface is designed with an emphasis on user control and playability. Specifically, the 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. Finally, a programmable HOTSWITCH allows you to instantly jump to an alternate sound at the push of a button. 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 reverb algorithm. These meters are after the IN control and OUT control, respectively, to aid in level adjustment. |
| OVERLOAD | Indicates an overload somewhere in the reverb's signal chain. If illuminated, you may want to reduce the level of the input audio. This is a sticky indicator, so once it fires it will stay lit until cleared. To clear the overload indicator, simply click on it. |

2.3 Blackhole Parameters

| | |
|-------------------|--|
| MIX | Determines the relative level of the wet and dry signals. |
| GRAVITY | The Blackhole's equivalent of decay time. On the right-hand side, the GRAVITY control sweeps through its forward reverb range from a very dense decay to a very long and smooth decay. On the left hand side, the GRAVITY control is in its inverse mode and sweeps through a range of reverse reverb-like settings. |
| SIZE | Determines the size of the reverb. This can range from cartoonishly small to cosmically epic. |
| PREDELAY | Sets the amount of delay before the reverb section. When TEMPO SYNC is off, this ranges from 0 to 2000 mS. When TEMPO SYNC is set to either Sync or Manual, it is set in beat divisions of the tempo. |
| LOW | Controls the level of low frequencies in the reverb tail using a shelving filter with a corner frequency of 350 Hz. |
| HIGH | Controls the level of high frequencies in the reverb tail using a shelving filter with a corner frequency of 2000 Hz. |
| TEMPO SYNC | Controls the tempo mode of the plug-in. When Off, the PREDELAY amount is in milliseconds. When in Sync mode, the PREDELAY amount will sync to the tempo of the DAW session. When in Manual mode, the PREDELAY amount will sync to a tempo which can be set manually. |
| MOD DEPTH | Sets the modulation depth in the reverb tail. This can be a subtle control, which nevertheless can reduce ringing in the reverb tail and add some motion to the sound. |
| MOD RATE | Sets the relative speed of the modulation in the reverb tail. Subtle but useful. |

FEEDBACK

Controls the feedback around the entire reverberation structure, for even larger sounds. Turning clockwise to Infinite will allow for infinite reverberation time, while still letting incoming signal into the reverberation structure. Turning further clockwise to Freeze sets the reverberation time to infinite, and does not allow incoming signal into the reverberation structure.

N.B. that either MOD DEPTH or MOD RATE must be turned down to 0 in order for infinite reverberation time to be achieved.

RESONANCE

Controls the resonance of the LOW and HIGH filters. When the filters are set to 0, this does nothing, but when they are active, it can create a much more filtered sound. But be careful, extreme settings will increase the chances of overloads.

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.

KILL

Kills the input to the reverb section allowing you to hear the reverb tail fade out. This can be useful to help dial in the sound, or it can be automated for a more tremolo-like effect.

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

HOTSWITCH

Allows you to instantaneously toggle between two settings for any combination of knobs and gain controls, allowing you to quickly jump between two different sounds.

To program settings for the HOTSWITCH, click and hold the HOTSWITCH until the light ring around it begins to blink. While the light ring is blinking, set the controls to the desired setting. When you are done, press the HOTSWITCH button again to exit programming mode. Now, pressing the HOTSWITCH toggles between the off-state and programmed values. To clear the programmed settings, simply right-click the HOTSWITCH. The light ring around it will quickly blink to confirm that the settings have been cleared.

The HOTSWITCH can be toggled via MIDI Continuous Control (CC) #3 messages. The HOTSWITCH will toggle when the CC goes from low (value < 64) to high (value \geq 64).

FREEZE

Sets the reverb time to infinite, sets FEEDBACK and MOD DEPTH to "Freeze", and mutes the input, effectively freezing the audio in the reverb buffer. Making changes to some controls when FREEZE is active can allow for interesting sound design.

FREEZE can be controlled via MIDI Continuous Control (CC) #4 messages. It will toggle when the CC goes from low (value < 64) to high (value \geq 64).

2.5 Preset Bar



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

When Blackhole is installed, a library of settings is placed into the `<user>/Music/Eventide/Blackhole/Presets` folder (Mac) or the `<user>/Documents/Eventide/Blackhole/Presets` folder (Windows). These presets have a `.tide` extension and can be saved or loaded from the Blackhole 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 `.tide` 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 `<user>/Music/Eventide/Blackhole/Presets` folder (if on Mac) or `<user>/Documents/Eventide/Blackhole/Presets` 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 Located at the top next to the preset save/load buttons is a button called MIXLOCK. Pressing this will enable 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 Blackhole plug-in.

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