TRICERACHORUS

User Guide

Eventide®

Contents

Welcome

Welcome   **PART 1**

1.1   About This Product

Thank you for your purchase of the Eventide TriceraChorus plug-in. TriceraChorus is a chorusing/detuning effect inspired by the classic tri-choruses and stompbox choruses of the 1970s and early 1980s, with some additional Eventide twists. 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.

1

Welcome

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1.1   About This Product

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TriceraChorus PART 2

TriceraChorus is inspired by the classic tri-choruses and stompbox choruses of the 1970s and early 1980s. These units used bucket brigade delay (BBD) chips to create chorusing. TriceraChorus pairs rich BBD-style tri-chorusing with another classic effect of the 1980s: Eventide MicroPitch detuning. This effect can be used to thicken the sound, to add static chorusing, and to spread the stereo field by detuning the left and right signals in opposite directions.

TriceraChorus has three chorus voices: Left (L), Center (C), and Right (R). A three-phase LFO modulates the delay times for the Left, Center, and Right voices. The frequency of the LFO is set by the RATE knob. The Left and Right modulation signals are always -120° and +120° out of phase relative to the Center modulation signal, as shown below. This combination of the three modulated delay voices creates lush chorus sounds.

The DEPTH L / DEPTH C / DEPTH R knobs control the depth of the delay modulation for the respective voices. Larger depth values increase the amount of delay modulation, producing greater changes in pitch. TriceraChorus also allows individual voices to be turned off. When a DEPTH control is set to OFF, that voice is removed from the output, and the volume levels of the other voices are automatically adjusted to maintain a constant level.

THREE-PHASE LFO
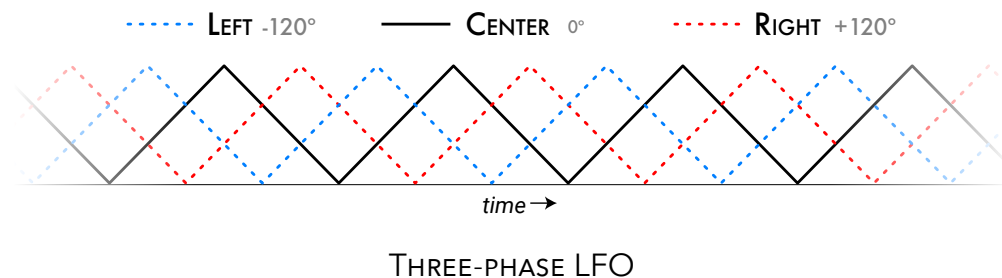
2.1   Navigating the Plug-In

The TriceraChorus user interface is designed with an emphasis on user control and playability. 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. The RIBBON allows you to program two settings for any combination of the controls and seamlessly morph to any sound between them. Finally, the 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 algorithm. These meters are after the IN control and OUT control, respectively, to aid in level adjustment.

2.3   TriceraChorus Parameters

SOURCE

Optimizes the internal chorusing and detuning algorithms for the given source instrument. Modes General and Synth are intended for broadband signals, whereas Bass and Guitar are tuned to the the tonal profile of a chorus stomp box. Note that these settings are not saved per-preset, just per-session.

CHORUS/CHORALE MODE

Toggles between CHORUS MODE and CHORALE MODE.

CHORUS MODE produces a chorusing effect similar to those found in classic chorus stompboxes.

CHORALE MODE produces lush, swirling choruses inspired by classic rackmount trichorus units. It adds two three-phase LFOs, one slow and one fast, to the primary LFO, creating an effect similar to combining the Preset and Manual modes on the DYTRONICS Tri-Stereo Chorus. This increases the complexity of the modulation, producing a richer sound. Additionally, CHORALE MODE changes the behavior of the Delay parameter. For more details, see the DELAY parameter description.

CHORUS/CHORALE MIX

The CHORUS/CHORALE MIX knob affects the dry/wet mix of the chorusing effect. Values near 50% will produce a typical chorus blend. At 100%, no dry signal is present in the output, and the effect will be one of vibrato rather than chorusing.

Note that when using stereo output, TriceraChorus automatically adjusts the spatial positioning of the chorus section when necessary to keep the stereo image centered. This behavior only occurs when CHORUS/CHORALE MIX is at a value other than 50%, and the Left voice is active while the Right voice is off, or vice versa.

RATE	This is the base rate of the chorus modulation, from 0.1 to 20 Hz, or in note values if TEMPO MODE is set to Sync or Manual.

Note that the ENV RATE control can change the apparent rate, so if the rate that you are hearing is different from the value of the RATE control, try setting the value of ENV RATE to OFF. |
| **DEPTH L** | Chorus modulation depth of the Left voice. When DEPTH L is OFF, the voice is removed from the mix, and the levels of the other voices are automatically adjusted to preserve the wet-dry blend.

In mono to stereo routing, if DEPTH R is OFF but DEPTH L is active, the chorused signal will be routed to the left and the dry signal will be routed to the right. This is a classic technique for producing a wider stereo image. |
| **DEPTH C** | Chorus modulation depth of the Center voice. When DEPTH C is OFF, the voice is removed from the mix, and the levels of the other voices are automatically adjusted to preserve the wet-dry blend. |
| **DEPTH R** | Chorus modulation depth of the Right voice. When DEPTH R is OFF, the voice is removed from the mix, and the levels of the other voices are automatically adjusted to preserve the wet-dry blend.

In mono to stereo routing, if DEPTH L is OFF but DEPTH R is active, the chorused signal will be routed to the right and the dry signal will be routed to the left. This is a classic technique for producing a wider stereo image. |

DELAY

Sets the amount of delay for the chorusing effect, ranging from 0.39 ms to 200 ms. Short delays can be used to create light flanging. Typical chorus delays range from 1.5-10 ms. A chorused slapback sound can be achieved by using values between 50 and 100 ms.

In CHORUS MODE, DELAY sets the predelay for all voices.

In CHORALE MODE, DELAY sets the delay range for all voices. The actual amount of time a particular voice is delayed depends on its DEPTH: as the DEPTH increases, the voice's delay time decreases, and vice versa. This behavior is part of the classic trichorus sound, and also can be a powerful tool for adding spatial depth to a sound. Because of the precedence effect, voices with higher depths will sound more prominent than voices with lower depths.

DETUNE MIX

Mix control for the Detune section of the algorithm. The Detuners are fed from the stereo output of the Chorus voices. DETUNE MIX controls the stereo left and right channels at the same time and is independent of the CHORUS MIX control.

DETUNE

Controls both detune amounts for the left and right channels. Range is +/- 40 cents. Left and right channels get opposing amounts of detune (for example -30L/+30R).

ENVELOPE MIX Uses the input signal's amplitude envelope to modulate the CHORUS/CHORALE MIX and DETUNE MIX amounts. Range is OFF, -100 to 100.

Negative values decrease the mix levels on signal attack, and can be used to increase the clarity of attacks or make sustained notes more expressive over time. Louder input will reduce the chorusing effect, and large negative values can be used to only allow chorusing when the input is soft.

At values of OFF or 0, the envelope will not affect the CHORUS or DETUNE mixes.

Positive values increase the internal mix levels for CHORUS and DETUNE from 0 up to the levels set by the mix knobs on signal attack. For example, with DETUNE MIX set to 50, CHORUS/CHORALE MIX set to 0, and ENV MIX set to 50, on signal attack the internal detune level will increase to 50, then decay towards 0 as the signal decays. The chorus level, however, will not increase because it is at 0.

ENVELOPE RATE Uses the input signal's envelope to modulate the speed of the LFO. Range is OFF, -100 to 100.

With negative values, the rate of the LFO is slowed down on signal attack, gradually returning to the value set by the RATE knob. Larger negative values can be used with faster RATE settings to create a fade-in vibrato effect.

At values of OFF or 0, the envelope will not affect the rate of the LFO.

With positive values, on signal attack the rate of the LFO increases from the minimum rate towards the value set by the RATE knob.

TONE

A tone control for shaping the high or low end of the output signal. Positive values roll off high frequencies (HICUT), FLAT is no tone shaping, and negative values roll off low frequencies (LOCUT). Use the LOCUT range to reduce muddiness. Use the HICUT range to roll off high frequencies for a softer sound.

The tone control only affects the wet signal path. Changes to the CHORUS/CHORALE MIX knob (or usage of ENV MIX) may alter the apparent effect of the TONE control. For example, a setting of HICUT 50 will sound brighter when the CHORUS/CHORALE MIX knob is set at 50 versus when CHORUS MIX is at 100 (Vibrato).

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.

The ACTIVE button 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   Toggles 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. It will toggle when the CC goes from low (value < 64) to high (value >= 64).

SWIRL   The SWIRL feature adds another dimension to TriceraChorus' sound via a stereo frequency shifter added after the Detune section. Following the rate of the main LFO, Swirl creates an intense throbbing effect, similar to flanging.

The amount of Swirl depends on the level of either CHORUS MIX or DETUNE MIX and takes the level of whichever is greatest (Swirl follows the ENV MIX Control). Use faster LFO rates to achieve deeper Swirl effects.

SWIRL can be toggled via MIDI Continuous Control (CC) #4 messages. It will toggle when the CC goes from low (value < 64) to high (value >= 64).

RETRIGGER   Retriggers the tremolo and secondary modulation LFOs to the beginning of their cycles. Useful for re-syncing during playback, or creative effects.

2.5   Preset Bar

Vibecore   ◀ ▶   LOAD   SAVE   COMPARE   INFO   SETTINGS

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

When TriceraChorus is installed, a library of settings is placed into the **<user>/Music/Eventide/TriceraChorus/Presets** folder (Mac) or the **<user>/Documents/Eventide/TriceraChorus/Presets** folder (Windows). These presets have a **.tide** extension and can be saved or loaded from the TriceraChorus 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	The LOAD button 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/TriceraChorus/Presets** folder (if on Mac) or **<user>/Documents/Eventide/TriceraChorus/Presets** folder (if on Windows), so that it is accessible from the Preset Dropdown. Note that you can create subfolders for you presets, for easier navigation and organization.
COMPARE	The COMPARE button 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.
INFO	Opens this User Guide, for quick access from the TriceraChorus plug-in.
SETTINGS	Opens a drop-down menu with scaling settings for changing the overall size of the plugin.

Conclusion PART 3

We hope you enjoy the TriceraChorus 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.