CYCLOSONIC PANNER

Softube

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Softube User Manual

Acknowledgements and Licenses

Disclaimer

Every effort has been made to ensure that the information in this manual is accurate. However, there are a chance that we have made mistakes, and we hope that you understand that we are only humans. Please let us know about the mistake, and we'll fix it in the mix (or in the next version of this manual).

Support

On the Softube website (`www.softube.com`) you will find answers to common questions (FAQ) and other topics that might interest you.

Support questions can be posted at `http://www.softube.com`, where we will help you as fast as we can!

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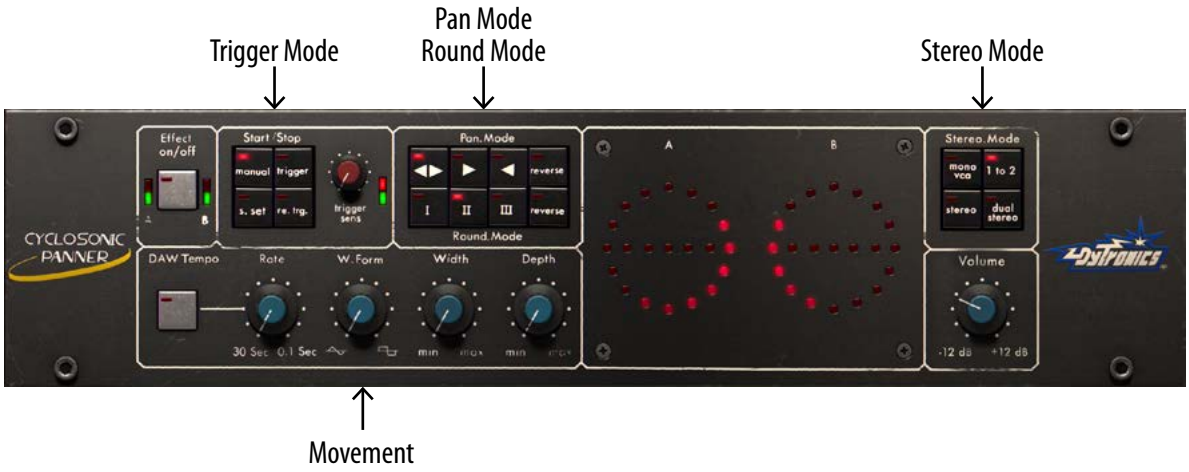
1 Dytronics Cyclosonic Panner

THE DYTRONICS CYCLOSONIC PANNER WAS originally introduced at the NAMM show of 1984 by American company **Dytronics**, previously famous for making the **Dytronics Tri Stereo Chorus**, an effect specially adapted for the **Fender Rhodes** piano. During the development phase, the Dytronics Cyclosonic Panner was originally called *Flying Saucer*, hence the acronym **FS-1 used** on the panel of the released hardware. It was sold and branded both under **Dytronics** and **Songbird** brands.



Overview

The UAD Dytronics Cyclosonic Panner features a combined control of *audio exciter*, *phase shift* and *panning*. The Cyclosonic Panner, just like the original hardware, features two panners (A and B) and user friendly real-time control and visual display of sound location and movement.

It also offers three-dimensional presence for drum and percussion tracks, synthesizer, vocal or special effects in four different advanced output configurations (MONO VCA, MONO TO STEREO, TRUE STEREO and the special DOUBLE STEREO output).

The unique PAN, ROUND and AUDIO TRIGGER modes in combination with the four output configurations allows for new and creative musical applications in final mix, tracking and live performance situations.

Pan Mode

In PAN MODE, the Cyclosonic Panner works as a standard left-right panner when working with mono signals (using the left input in 1 to 2 mode) and stereo signals (using both left and right inputs in STEREO mode). But the Cyclosonic Panner can also be used in PAN MODE combined with the more unusual MONO VCA mode to create *auto-gating*, *tremolo* or *"audio-chopping"* effects.

Round Mode

This feature moves the sound three-dimensionally around the listener, giving the illusion that the sound is both in front of you and behind you. Round movement is accomplished by combinations of equalization (exciter) and up to 360 phase shift and panning. In combination with the **Pan Mode's** directional and reverse selection buttons you will be able to create over 36 variations of panning, circling and chasing with the Dytronics Cyclosonic Panner.

Trigger Mode

The Cyclosonic Panner's trigger modes utilizes the maximum audio input signal on both left and right input. As the signal goes above the set threshold it allows the trigger input signal's amplitude and duration vary movement direction in addition to start and stop locations – a specialized and musical alternative to gate triggering.

> The trigger will only listen to the left input (channel A)!

Stereo Modes

The Dytronics Cyclosonic Panner features four different output configurations, **Stereo Modes**, in order to reflect the connectivity of the original hardware unit. Inputs on the original hardware unit were named CHANNEL A (left input) and CHANNEL B (right input) and are connected each with its own pair of 3D panning stereo channels, appropriately named *"channel A"* and *"channel B"*. The 2D or 3D panning position of these is displayed on the panner A and panner B LED displays. Softube has faithfully recreated all four of the physical patch point output configurations of the original hardware unit, here called **Stereo Modes**.

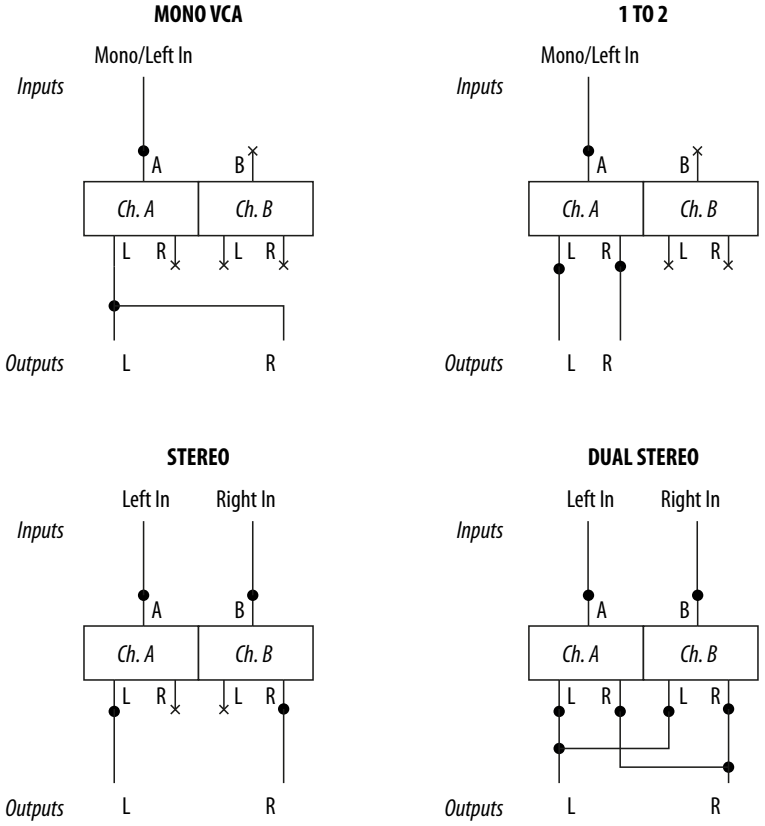
Mono VCA

Single Mono in - Mono out ("one in one out gate mode")

MONO VCA mode emulates a hardware setup where a single mono in and a single mono out is used in order to achieve noise-gating or tremolo (mono) effects. In this mode, the Cyclosonic Panner only make use of audio from the left channel.

1 to 2

Single Mono in - Stereo out (channel A left and right)



In 1 TO 2 mode, the Cyclosonic Panner emulates a mono-to-stereo setup where a mono signal (left) is sent into channel A and a stereo effect is created from that mono signal.

Stereo

Stereo in - Stereo Out (channel A left and channel B right)

STEREO mode listens to both left and right inputs but stereo output is a combination of channel A's left channel and channel B's right channel.

Dual Stereo

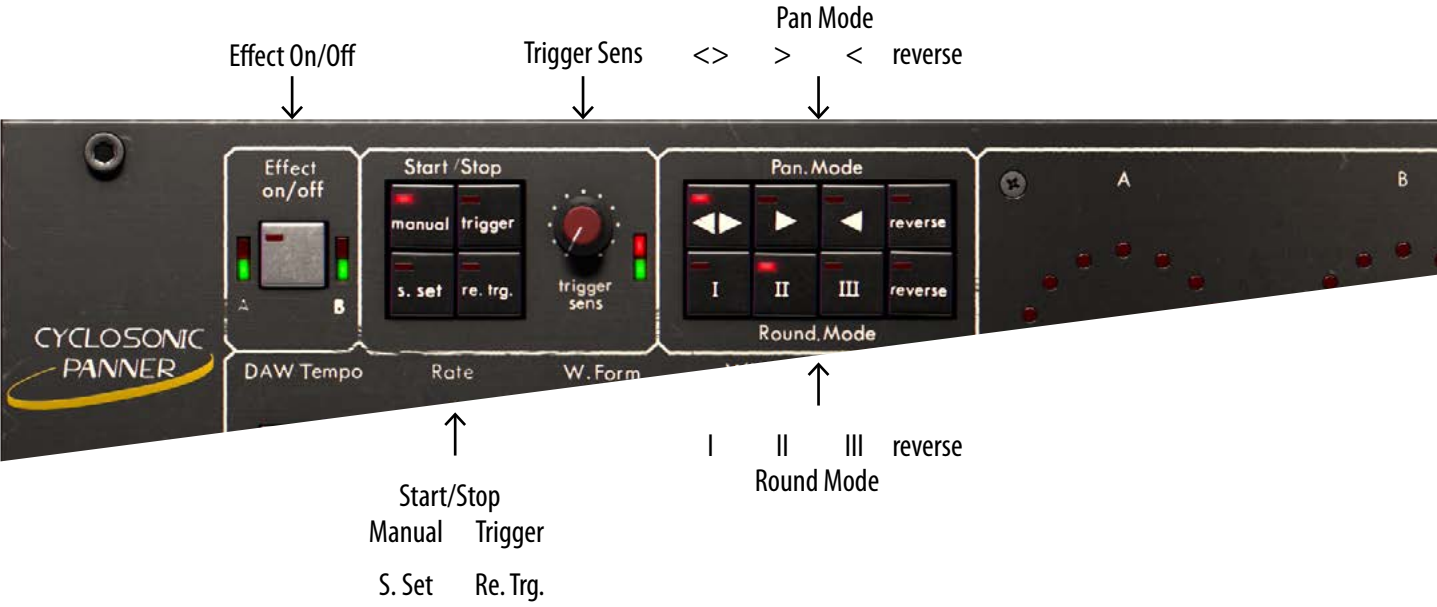
Stereo in - Double Stereo out (channel A left and right + channel B left and right)

DUAL STEREO mode utilizes both left and right inputs but using both stereo panners A and B for its output. These are together combined into an ordinary stereo output.

Parameters

Effect On/Off This button turns the Cyclosonic Panner effect ON or OFF. In OFF position, effect is bypassed.

Start/Stop Manual This button turns on and off panner movement. When Manual is set to "OFF" position, the pan mode (<>, >, < and REVERSE) and round mode (I, II, III and REVERSE) buttons can still be used to set a static position for the output stereo image.



Start/Stop Trigger This buttons engages the **Trigger Mode** of the Cyclosonic Panner. When engaged, whenever the level set via the **Trigger Sens** knob is exceeded by incoming audio, movement will occur. Clicking on **Trigger Mode** will also engage latest used trigger mode (**S.Set** or **Re.Trig**, see description below).

Start/Stop S.Set In this trigger mode, when trigger level is reached, movement occurs in the direction selected. When signal level falls below threshold, movement is automatically reversed to the starting position before stopping. Varying amplitude and duration of the trigger signal input will result in a random musical control of the movement. Fine tune the trigger sensitivity control to achieve optimum musical effect.

Start/Stop Re.Trg In this trigger mode, when trigger level is reached, movement occurs. When signal falls below trigger threshold, movement is stopped. This can be used to create auto-Leslie (in STEREO mode) or tremolo style effects (in MONO VCA mode).

Trigger Sens This sets threshold sensitivity when triggering movement from incoming audio. Lower values set the trigger threshold higher, while higher values set the trigger threshold lower, making it more sensitive to trigger movement.

Pan Mode <> When this **Pan Mode** is selected, equal movement will be applied to both sides back and forth.

Pan Mode > In this Pan Mode, movement will be from left to right only, and doubles the speed of the movement.

Pan Mode < This button initiates movement from right to left only, and doubles the speed of the movement.

These Pan mode selectors can also be used to switch static pan locations while Start/Stop modes are OFF (**Manual** are set to OFF).

Pan Reverse This button reverses the movement direction of CHANNEL A. This is very useful when using the STEREO or the DUAL

DAW Tempo | Rate | W. Form | Width | Depth

STEREO output modes, as it adds inverse movement to one channel against the other.

Round Mode I Panning with exciter. ROUND MODE I provides a sophisticated psycho-acoustic high frequency Doppler effect simulation, which varies in intensity with panning movement. Every other turn will add a boost to the middle of the left to right cycle, within the selected pan cycle.

Round Mode II ROUND MODE II creates a illusion of where the amplitude of the panned signal changes from front to back. Phase will also change to further enhance this experience.

Round Mode III ROUND MODE III uses pan movement, amplitude change, phase shift and exciter all at once to create a realistic "3D panner" effect, where the sound appears to spin around you.

Round Mode Reverse This button reverses the position of CHANNEL A from front to back. Engaging this mode while using STEREO or DUAL STEREO output configurations can create dramatic effects.

The Cyclosonic Panner Round-modes II and III uses phase-inversion in order to achieve the 3D panning effect. Be mindful about the phase issues in the audio this could cause—especially be if you're going to make it prominent in the mix for anything that may go to vinyl.

Movement

DAW Tempo When this button is pressed and lit up, it means that the panner movement rate is synchronized to DAW tempo in divisions that are set via the rate knob (see description below)

Rate Use this knob to select the speed of movement from a very slow 30 second cycle, up to .1 seconds per cycle. In DAW sync mode, divisions range from 4 bars per cycle up to 1/16 note per cycle.

W.Form The **W. Form** (waveform) knob is used to select the waveform movement in PAN or ROUND mode. This knob is continuously adjustable between the unique triangle/sine wave and square wave of the original hardware.

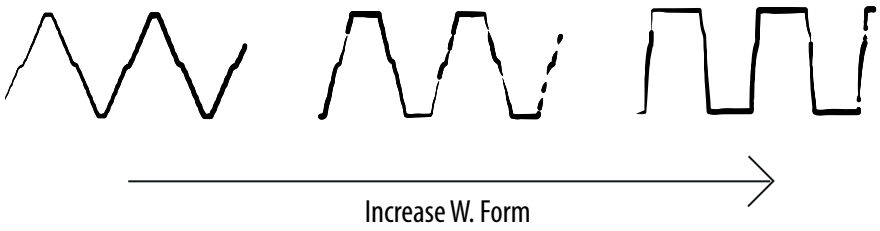
Width This knob is used to set the amount of pan sweep movement. The higher the value, the more radical the pan sweep will be.

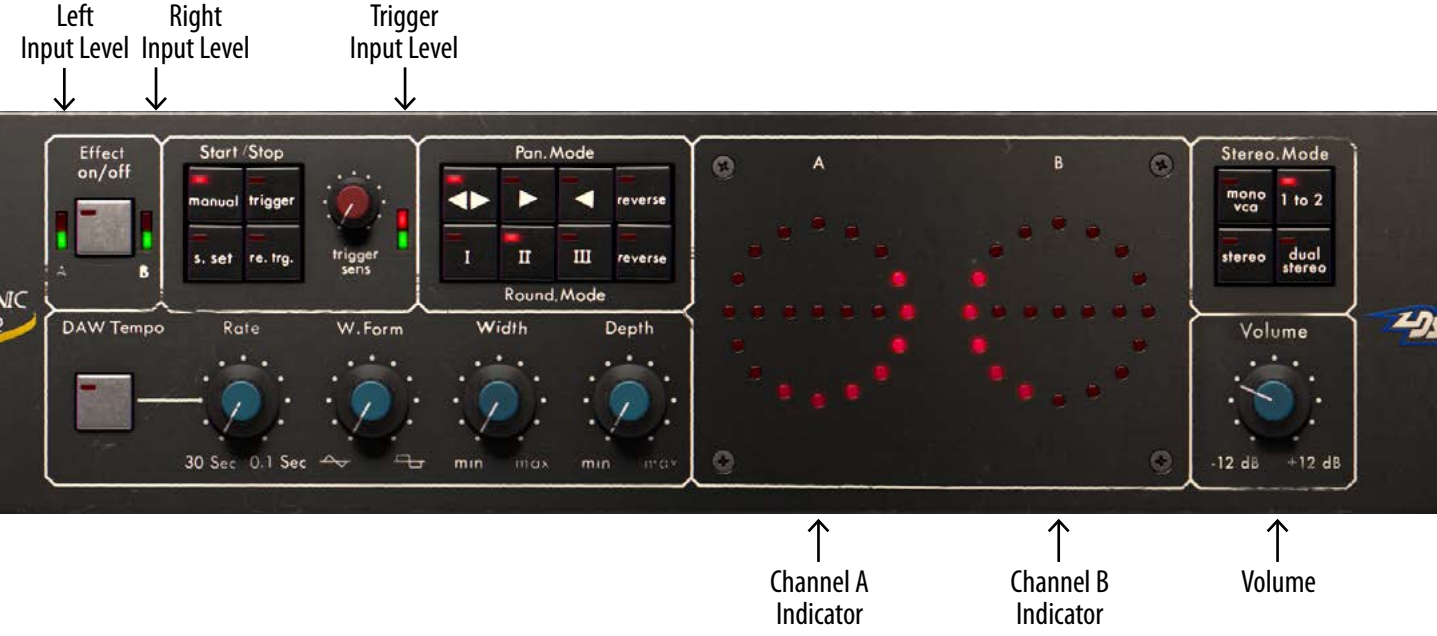
Depth The **Depth** knob sets the amount of amplitude change in the round sweep movement. The higher the value, the more radical the pan sweep will be.

Stereo Modes

Stereo Mode

Mono VCA This button engages MONO VCA mode, which emulates the hardware setup where only channel A (left channel) is used with resulting signal on the left mono output. Also known as the "*noise-gate*" setup.





Stereo Mode 1 to 2 This button turns on 1 TO 2 mode, where the plug-in emulates the original hardware's mono to stereo setup with a mono signal (left) in and a stereo effect output.

Stereo Mode Stereo This turns on STEREO mode, where both left and right inputs are used as the source and the stereo output is a combination of panner A left channel and panner B right channel.

Stereo Mode Dual Stereo This button engages the DUAL STEREO mode, utilizing both left and right inputs with its combined stereo output channels from panners A and B.

Volume Set the output volume of the plug-in, from -12 to +12 dB with 0 dB gain at 12 o'clock.

When **Depth** control is at maximum and in **Round mode II** or **III**, the output level will sometimes be three times greater than that of the input level.

Indicators

Left input level This LED indicator shows signal going to the left input (connected with channel A).

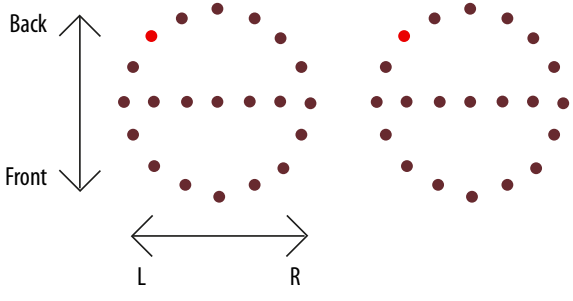
Right input level This LED indicator shows signal going to the right input (connected with channel B).

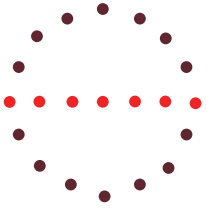
Trigger input level This LED indicator shows trigger level response. When the indicator is green, input signal is too low to trigger movement. When the indicator is red, the input signal is above trigger threshold and triggers the movement.

Channel A Pan indicator LEDs The horizontal bar in the Channel A indicator LED ring displays pan movement (left-right) of input Channel A (left stereo input).

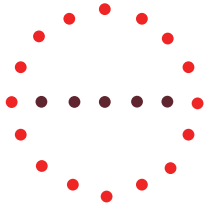
Channel A Round indicator LEDs The Channel A indicator LED ring display is the visual representation of sound movement in input signal A (left channel). This simple ingenious LED rings shows both direction, start position and speed.

Channel B Pan indicator LEDs The horizontal bar in the Channel B indicator LED ring displays pan movement (left-right) of input Channel B (right stereo input).





Pan Indicators



Round Indicators

Channel B Round indicator LEDs

The Channel B indicator LED ring display is the visual representation of sound movement in input signal B (left channel). This simple ingenious LED rings shows both direction, start position and speed.

The bottom half of the LED displays represent the front position and speed of the signal. The top halves represent the back position and speed of the signal.

In Use/Tips & Tricks

To use the Cyclosonic Panner as a stand alone "exciter", select Round I, keep effect on with start/stop modes set to off. The Depth control will then vary the exciter intensity when the movement is in the center of its' left-to-right cycle.

The super-responsive trigger and sensitivity controls makes the Dytronics Cyclosonic Panner excellent to use for audio gating capabilities. Utilizing the Mono VCA configuration with Panning and Re-trig modes will allow the rate and waveform controls to variably adjust the duration of time release, cut-off and intensity of the gated signal.

Below is a list of additional effects you can create with the Dytronics Cyclosonic Panner that you might not expect from a panner:

- noise gate
- compressor
- tremolo
- exciter
- echo-like envelopes

Some combinations of panning with the Stereo modes (Stereo and Dual Stereo) may produce unexpected results when mono components of the input stereo channels are summed together. This could for example produce phase-cancellation which in part of the swept stereo-phase will produce no audio. This can of course also be used as an intentional effect.

Credits

Björn Rödseth – modeling, **Kim Larsson** – modeling, **Kristofer Ulfves** – product owner, user manual, testing, presets, **Maxus Widarson** – testing, **Niklas Odelholm** – graphic design, **Ulf Ekelöf** – 3D rendering.

1 General Settings

SOFTUBE PLUG-INS ARE "what you see is what you get" products. You should be able to intuitively learn the products within minutes, so that you can work fast and efficient with them. There are a couple of things that remain the same for all of our plug-ins, such as the menu row. These will be explained in this chapter. For detailed information of a particular plug-in, please see its chapter.

Menu Row

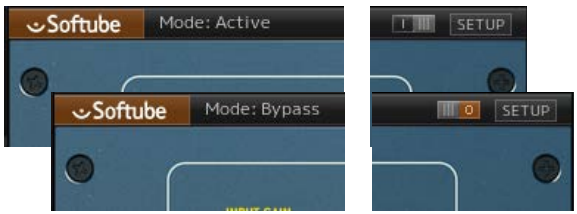
In the bottom of the plug-in interface, you will see a thin black row with some buttons. We'll use the Chandler Limiter Zener Limiter plug-in as an example, but the same goes for all Softube plug-ins.

About Box Opens the "About" Box with version info.

Value Display Displays the knob value when the mouse is hovering over a control.

Enable Enable/Activate the plug-in. Set to OFF for bypass.

Setup Changes global options for all instances of that plug-in.



Enable

When the **Enable** switch is set to ON (I), the plug-in is active and will process audio. When set to OFF (0), it will be bypassed and not process any audio.

Setup

In the Setup window you can change settings that will affect all instances of that particular plug-in. If you, for example, de-select the "Show Value Display" option in the plug-in, the value display will be off for all instances of that plug-in on your system until you select that option again.

The different options vary between Windows and Mac, and also different formats and plug-ins. The most common options are:

SHOW VALUE DISPLAY: Enables the parameter and value display in the bottom row of the plug-in.

REVERSE MOUSE WHEEL DIRECTION: (Mac OS Only) Changes if the a knob is turned up or down when the mouse wheel is turned up or down. *(Mac OS Only)*

> You need to restart your host software (DAW) for the changes to fully take effect!

If you messed something up and manually need to set these options, you'll find them in text format in the following locations:

MAC OS: `~/Library/Application Support/Softube`

WINDOWS: `username\Application Data\`

Key Commands

All numbers and labels in the plug-in are clickable. This allows you to easily select a setting by clicking on the wanted value. Hovering above a label will turn the mouse pointer into a pointing hand.

Mouse

Up/Down or Mouse Wheel	Change a parameter, such as a knob or a switch.

Keyboard

Fine Adjust	⌘ (Mac) or CTRL (Win), while changing the parameter value.
Reset to Default	ALT, while clicking on the knob or fader.
Link Parameters	SHIFT, while clicking on a button or a knob. Some plug-ins have linked parameters, such as the two mics in Metal Amp Room, or the Input and Output volume in Zener Limiter. In order to change both knobs at once, adjust one of the knobs while holding SHIFT.

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