



User Manual

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POWER REQUIREMENTS

18V DC Center Negative
 300mA supply minimum
 Input Impedance: 1MΩ
 Output Impedance: 100kΩ



Knob Functions



MIX

Takes the effect from fully dry (CCW) to fully wet vibrato (CW). It also features a detent in the center of the range for a 50/50 blend of dry and vibrato otherwise known as CHORUS. The MIX value is not saved when saving a preset

DEPTH

Increases/decreases the intensity of the LFO that is applied to the bucket brigade delay chips. The DEPTH control value is saved when saving a preset.

SPEED

Controls the speed of the LFO from 0.1Hz to 10Hz. The SPEED control value is saved when saving a preset.

TONE

It is used to shape the EQ of the wet signal only. CCW will boost lows and cut highs whereas CW will boost highs and cut lows.

The TONE value is not saved when saving a preset.

PHASE/RATIO

Adjusts the phase of LF02 relative to LF01 in presets 80's, RCK, VIB and UC. When set fully CCW the phases of the two LFO's are locked together. As the PHASE control is advanced, LF02 starts to fall behind LF01 until at the fully CW position, the two LFO's are 180 degrees out of phase.

In presets ROT and HRM the RATIO control adjusts a multiplier that increases the speed of LF02 relative to LF01.

The PHASE/RATIO control has no effect in the 70's preset as there is only one LFO active. The PHASE/RATIO control value is saved when saving a preset.

DELAY

Controls the center clock frequency that is being sent to the BBD chips. Fast (CCW) delay settings give a super tight, almost compressed sound and Slow (CW) delay settings give a looser, more sea-sick sound.

NOTE: Extreme settings at either end of the DELAY control when in UC preset may introduce noise and artifacts as we push the BBD chips to the limit!

Enjoy!



Ins & Outs/TRS Mode

The inputs on the NEW WAVE can be run in STANDARD mode or TRS mode. Standard mode is mono in, stereo out like most chorus pedals. TRS mode is stereo in, stereo out using a TRS cable for the input and a TRS cable for the output using the L-OUT jack.

The pedal ships with STANDARD mode enabled by default. To set TRS mode: Hold down the TAP foot switch and apply power to the pedal.

A blue LED will indicate TRS mode. To switch back to STANDARD mode, press and hold the TAP foot switch and apply power to the pedal.

A magenta LED will indicate STANDARD mode.

The NEW WAVE uses MIDI over a 1/8" TRS jack. We use the Standard/Type A MIDI configuration.

Expression control of SPEED is done using a 1/8" TRS jack. Any standard expression pedal should work with the NEW WAVE.

Switches

Press the DEPTH knob to advance the preset. Press and hold to save a preset. The LED ring around the DEPTH knob will flash to show that the preset was saved.

Press the PHASE knob to advance the selected LFO wave shape.

Press the left foot switch to engage the effect.

Tap the right foot switch 3 times to set the speed of the LFO.

Press both foot switches simultaneously to advance the selected preset.

BLOOM Function

To enable the BLOOM function, press and hold the left foot switch down for 1 sec. The LED will turn yellow.

Now, instead of the NEW WAVE being true bypass, the pedal is now buffered bypass and will fade the effect on/off when you press the left foot switch.

A Green LED means the effect is off.

To disable the BLOOM function, press and hold the left foot switch again and the LED will turn aqua. You are now back in true bypass operation.

RAMP Function

The RAMP function allows you to change the speed of the LFO using a ramp function vs tapping it with the tap tempo switch.

To enable the RAMP function, press and hold the TAP foot switch.

The LED will change from a flashing white LED (tap mode) to a flashing pink LED.

Unless a specific slow speed is set, the RAMP function will initially ramp down to a speed that is $\frac{1}{2}$ of the current LFO speed.

Pressing the TAP foot switch again will ramp the LFO back up to the faster speed setting.

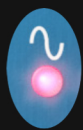
To set the slow speed setting, press and hold the phase button and adjust the speed knob to the desired slow speed. Release the phase knob and the slow speed setting will be saved. Readjust the speed knob now to set the fast speed setting. When you press the TAP foot switch now, the LFO speed will ramp between these two speeds. These two speeds will be saved to the preset when you save it.

To reactivate the TAP tempo function, press and hold the TAP foot switch for 1 second and the tap LED will change to a flashing white LED.

Wave Shapes

There are 5 LFO wave shapes in the NEW WAVE which are:

Sine



Triangle



Square



Solina



Triplet Solina



Sine: Super smooth and organic sounding

Triangle: Very linear up and down. Most chorus pedals use this shape.

Square: Very choppy and very fun to make unique sounds with!

Solina: A rhythmically modified sine wave that adds incredible texture to whatever you are playing.

Triplet Solina: We took the Solina waveform that we produced and gave it a triplet feel for more rhythmic possibilities!

Modes

Every mode on the NEW WAVE was carefully curated by Brad Jackson and Mark Lettieri.

We recommend that you start the NEW WAVE with all knobs set at 12:00 and play through the modes.

This will help you get a feel for the differences in each mode.

-70's MODE: This is the sound of the late 70's and the only mono chorus in the NEW WAVE. Simple mono LFO on the left side moving against a stationary dry sound on the right side.

-80's MODE: Classic stereo chorus with two LFO's moving at the same time.

-RACK MODE: Stereo chorus featuring both a pitch increase as well as pitch decrease! Very musical.

-VIBRATO MODE: Classic analog vibrato (with MIX set fully CW), with pitch increase as well as decrease.

-ROTARY MODE: Emulates the sound of a rotating speaker cabinet. The RATIO control speeds up LFO2 (horn) up to 3 times faster than LFO1 (drum) with LFO2 being half the intensity of LFO1.

-HARMONIC MODE: Rhythmic chorus. In HARMONIC mode, the RATIO controls the speed of LFO2 using a multiplier up to 2x applied to LFO1. The intensity of LFO2 is the same as LFO1.

-USER CONTROL: Full control. No limitations. You can set this mode any way you like! You have extreme control over all parameters and can make it sound beautiful or grotesque. It's all you. You're in control.

Saving presets in Modes

You can save the values of DEPTH, SPEED, PHASE/RATIO, DELAY, wave shape, BLOOM, and RAMP for each mode. To save your current setting to your current mode, hold down the depth button until your depth LEDs flash magenta. To overwrite these just repeat the process. Even when powered off the pedal will remember the settings you've saved for each mode.

To cycle through the presets, press both foot switches simultaneously, or press the DEPTH knob.

MIDI

To set MIDI channel, hold down left foot switch then plug in power. Use depth knob to scroll through 1-16.

CC 1 Value 0=OFF
CC 1 Value 127=ON
CC 2 Value 1=Sine
CC 2 Value 2=Triangle
CC 2 Value 3=Square
CC 2 Value 4=Solina
CC 2 Value 5=Triplet Solina
CC 3 Value 0-127=Depth
CC 4 Value 0-127= Speed
CC 5 Value 0-127= Phase
CC 6 Value 0-127= Ratio
CC 7 Value 0-127= Delay
CC 8 Value 0-100= Set speed in Hz(0=0.2 Hz, 100=10 Hz)
CC 9 Value 127= RAMP up or down
CC 10 Value 127 Followed by Value 0=Tap Tempo

PC 1= 70's Mode
PC 2= 80's Mode
PC 3= Rack Mode
PC 4= Vibrato Mode
PC 5= Rotary Mode
PC 6= Harmonic Mode
PC 7= User Control Mode

Expression

Use a TRS expression pedal to control speed.

USB

Mini USB jack located on circuit board for future firmware updates