

HYDRA

STEREO REVERB & TREMOLO

INSTRUCTION MANUAL





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Keeley Electronics, Inc. 2020

THE KEELEY HYDRA - STEREO REVERB & TREMOLO

The HYDRA combines high-fidelity Reverb and Tremolo to add space and dimension to your guitar, bass, or keyboard signal. After the team at Keeley completed the ECCOS, we wanted to craft the perfect companion pedal, and we did just that with our new, feature-rich blue box. Bathe your sound in Spring, Plate or Room Reverb, then add tap-tempo enabled Harmonic, Vibrato, or Sine Wave Tremolo with the press of a button. You can easily change the order of effects or the character of the Tremolo or Reverb with the HYDRA's smart Alt Controls. You can even create an Infinite Hold Reverb Trail! Save up to three presets with ease using our intuitive save feature. Engage Reverb Trails on the fly, no more internal dip switches. The Hydra can be used with pro remote switching systems and offers both TRS Expression Pedal and External Tap-Tempo inputs. The HYDRA is a complete end-of-pedalboard solution that fits perfectly in any musician's rig, regardless of genre. Experience next-level processing power in this pedalboard-friendly enclosure. The sky, or more appropriately, the ocean floor, is the limit with the new Keeley Electronics HYDRA!



HYDRA STEREO REVERB & TREMOLO

PRIMARY CONTROLS



- 1 RATE** - Sets the rate of the Tremolo. Turn left for slower speeds, right for faster.
- 2 DEPTH** - Sets the maximum amount of volume reduction for the Tremolo.
- 3 DWELL** - Sets the length of the Reverb trail. Turn left for less, right for more.
- 4 COLOR** - Sets the tone of the Reverb. Pressing this control grants access to alternative settings and presets.
- 5 MIXER** - Sets the level of the Reverb. Turn left for a lower Reverb volume, right for higher Reverb volume.
- 6 TOGGLE SWITCH** - Selects between Spring, Plate and Room Reverb types.

SECONDARY CONTROLS

Access four alternate tone and time shaping controls by pressing and holding the COLOR control while turning other controls

- 1 COLOR** - Press and hold the COLOR knob while manipulating the other controls to change the settings marked in dark grey on the HYDRA.
- 2 TREM SYNC** - Sets the stereo output of the Tremolo for either panning, synced, or wet/dry. CCW of noon is stereo panning where the signal will alternate between the two outputs. At noon both outputs will be in sync, pulsing at the same time. CW of noon will run the dry signal through the Stereo Out jack and Trem through the Mono Out jack.
- 3 TREM LEVEL** - Controls the output volume of the Tremolo. At full CW there is a +6db boost to compensate for the perceived volume drop inherent in Tremolo.
- 4 WET/DRY** - Sets the stereo output of the Reverb for either stereo Reverb or a wet/dry setup. CCW of noon is stereo Reverb while CW of noon is the dry signal only on the Stereo Out and Reverb on the Mono Out.
- 5 REVERB MODIFIER** - Modifies the Reverb depending on the mode selected. On Spring this will control the spring age, being bouncier and more pronounced echoes with the control full CW and more diffused and smooth at full CCW. On Plate this sets the amount of shimmer introduced into the Reverb. Full CCW is no shimmer with full CW giving a large cascade of octave up. On Room this controls the room size, going from a small closet at full CCW to a large cavern at full CW.
- 6 TOGGLE SWITCH** - Selects between Sine, Harmonic, and Vibrato Tremolo.

FX ORDER - To change the order of effects, press and hold the COLOR knob and double tap the BYPASS switch for the effect to be first in the chain.



Hold down the COLOR knob while manipulating other controls to access secondary controls.

HYDRA STEREO REVERB & TREMOLO

FOOTSWITCH CONTROLS

Smart Controls at the press of a button



- 1 TREMOLO** - Single tap to turn the Tremolo on or off. Pressing and holding the Tremolo switch for approx. 1 second will put the Tremolo into Tap Mode. The current mode LED will flash at the rate indicating that the Trem is in tap mode. Pressing the Trem Bypass switch more than once will change the rate of the Trem. This mode times out in 5 seconds. You can also exit this mode by holding the Trem Bypass Switch for 1 second.
- 2 REVERB** - Single tap to turn the Reverb on or off. Pressing and holding the REVERB switch for approx. .5 seconds will freeze the signal going into the reverb for infinite sustain.

MODE SWITCHING

Double tapping the COLOR knob will put the unit into mode select. The Mode LEDs will illuminate to show where both the Reverb and Tremolo modes are set. The Tremolo LED will blink at the current tempo. To change Tremolo mode simply scroll through using the Tremolo Bypass switch. Similarly, use the Reverb Bypass switch to toggle through the Reverb modes. Once the modes are set, double tap the COLOR knob to exit. Alternately, it will automatically time out and exit 8 seconds after the last button push.

REMOTE SWITCHING

The Tremolo and Reverb Bypass switches can be controlled remotely through the remote jack. Using a TRS cable, the tip controls the Reverb while the ring switches the Tremolo. The unit is set up to be used with momentary switches by default. It can be put into latching mode by holding down the Tremolo Bypass switch while applying power to the unit. Doing this again will put the unit back into momentary mode. While in latching mode, the bypass switches on the unit will behave differently than when in momentary mode. The Tremolo Bypass switch on the unit will no longer turn the Tremolo on or off. Instead, this switch is solely used for presets (Double tap to enter preset mode, hold switch to save preset, and single press to select preset). The Reverb switch on the unit is tied directly to the tip of the remote switching. Due to this, the on-unit Reverb Bypass switch will act as if it has been hit twice for every one button press.

Preset mode can still be accessed by double tapping the Ring switch. Pressing the Tip switch will scroll through the presets. Pressing the Ring switch again will recall the selected preset.

EXTERNAL TAP

Plugging a mono cable into the expression jack will allow the use of an external switch for tap-tempo control.

TAP TEMPO MODE

Control the speed of the HYDRA's Tremolo with our handy Tap Mode

Pressing and holding the Tremolo Bypass switch for approximately 1 second will put the Tremolo into Tap Mode. The current mode LED will flash at the rate indicating that the Tremolo is in Tap Mode. Pressing the Tremolo Bypass switch more than once will change the rate of the Tremolo. If the Tremolo Bypass switch has not been pressed for more than 5 seconds the Tremolo will exit out of Tap Mode. Additionally, pressing and holding the Tremolo Bypass switch for 1 second will exit Tap Mode.

INFINITE HOLD

Freeze the HYDRA's Reverb for as long as you wish with intuitive Infinite Hold

Pressing and holding the Reverb Bypass switch for approx. 0.5 seconds will freeze the signal going into the Reverb for infinite sustain.

TRAILS

Trails or True Bypass - Switch on the fly and choose what works best for you

Trails can be achieved by pressing and holding both the Reverb and Tremolo bypass switches for roughly 2 seconds. The Reverb Bypass LED and the current Mode LED will flash twice to indicate a successful change.

ALL WET / DRY MODE

Choose All Wet or Dry Mode quickly and easily

The dry signal can be toggled on and off by holding the Tremolo Bypass switch and COLOR knob while applying power to the unit.

BUFFERED BYPASS

The unit can be put into buffered bypass by pressing and holding the COLOR knob and the Reverb Bypass switch for approximately 3 seconds. Repeat the process to change back to True Bypass. The Mode LED and Reverb Bypass LED will flash twice to indicate that the change has been made.

While in buffered bypass, the unit will sum both inputs to the mono output if no jack is connected to the stereo output.

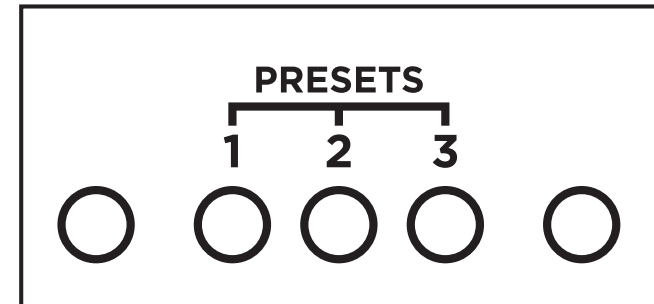
Note: Summing the outputs to mono may have unexpected results depending on what is plugged into the Right input.

CREATING AND SAVING PRESETS

PRESET SELECT MODE - To enter Preset Select Mode, quickly double tap the TREMOLO switch or tap the COLOR knob once. Preset LEDs will begin to flash. The REVERB switch or MODE Select switch advances through the presets. Tap TREMOLO again to select the preset currently flashing. Hold TREMOLO to overwrite the selected preset.

CHANGES TO A PRESET - Any changes made to a parameter will turn OFF the preset LED. Double tap the TREMOLO switch again to once again enter preset select mode. Cycle through the presets by using the REVERB or MODE switch, then hold the TREMOLO switch to save the changes made to the selected preset.

The HYDRA features 3 preset locations. In addition, you can access a What You See Is What You Get (WYSIWYG) mode by entering Preset Select Mode, then scrolling through the preset locations until all 3 Preset LEDs are blinking, then select it by tapping the TREMOLO switch. This is a great way to exit any of the three preset settings and go back to where the controls are currently set.



The three lights in the middle of the HYDRA are preset indicators, which will correspond with the currently engaged preset. In WYSIWYG mode, all three are constantly lit.

EXPRESSION PEDAL USE

TO ASSIGN A PARAMETER

1. Hold COLOR knob for 2 seconds to enter Expression Mode.
2. Set connected expression pedal to heel-down.
3. Turn a HYDRA control knob to the desired heel-down setting.
4. Set the expression pedal to toe-down.
5. Turn the same control knob to the desired toe-down position.
6. Hold COLOR knob for 2 seconds to save your settings.

Note: You can set multiple parameters at once to be controlled with your expression pedal. You can set partial ranges, reassign ranges, or even reverse heel/toe positions in this mode. The sky is the limit!

TO UNASSIGN A PARAMETER

1. Hold COLOR knob for 2 seconds to enter Expression Mode.
2. Set connected expression pedal to heel-down.
3. Turn each knob a small amount to let the HYDRA know you don't want the control to be 'expression controlled'. Don't touch controls still assigned to the expression pedal.
4. Set the expression pedal to toe-down.
5. Hold the COLOR knob for 2 seconds to unassign and save.

Note: Any parameters that were not moved will maintain their previous expression status.

Note: You can save expression pedal setting to any of the 3 HYDRA preset locations.

EXPRESSION PEDAL INPUT

You must use a TRS (stereo) expression pedal with the HYDRA. If you use a mono cable (or volume pedal), the HYDRA will not power on.

When a TRS (stereo) expression pedal is inserted, the expression pedal defaults to controlling the RATE control of the TREMOLO.

Note: Plugging a mono cable into the TRS EXP. PEDAL jack will allow the control of the Tap Tempo.

CLEAR ALL EXPRESSION SETTINGS

To clear ALL expression pedal settings, enter Expression Pedal Mode by holding the COLOR knob for 2 seconds. Once in Expression Pedal Mode, hold TREMOLO footswitch for 2 seconds to clear ALL expression pedal settings and reset them to default. Once finished, exit Expression Pedal Mode by holding the COLOR knob for 2 seconds.

FACTORY RESET

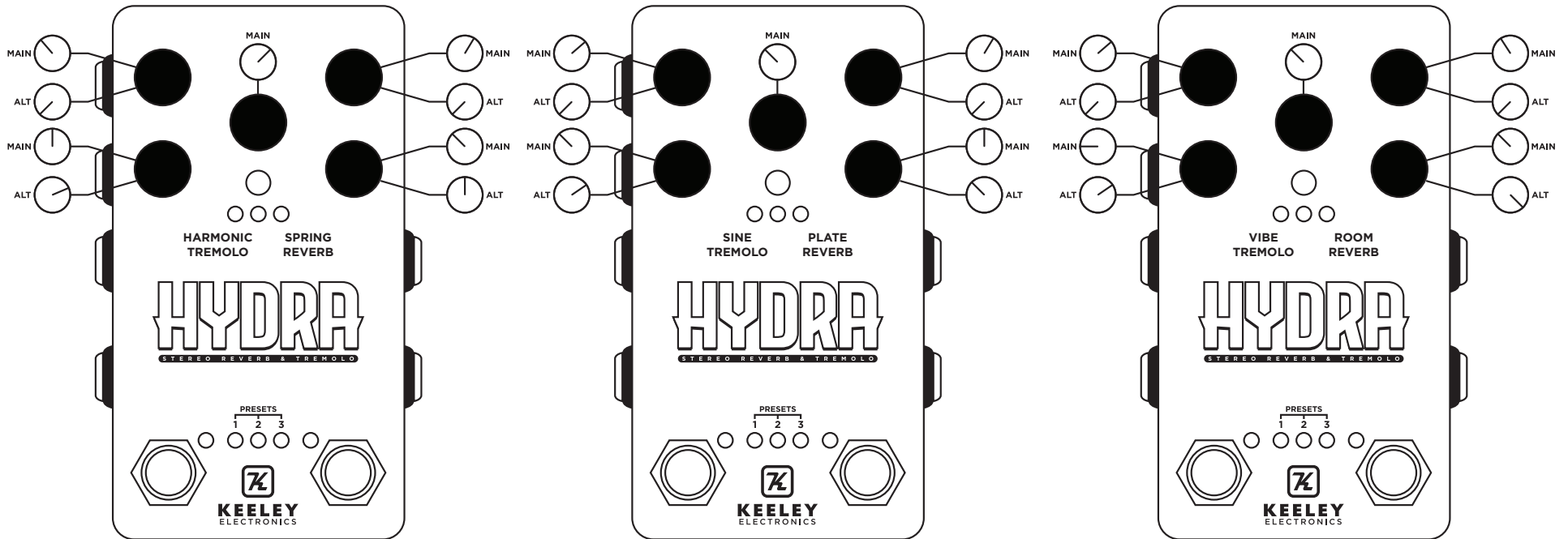
Hold down the COLOR knob + TREMOLO + REVERB footswitches while applying power to the unit. All LEDs will flash in succession and all controls, secondary controls, modes, memory and presets will return to default settings. You will see all of the lights on the HYDRA cycle, indicating that the Factory Reset is complete.

Note: When making these adjustments, it helps to place the HYDRA on a flat surface, such as a pedalboard or a table top.

FACTORY PRESET HYDRA SETTINGS

Getting started with the HYDRA Stereo Reverb & Tremolo

TIP: HOLD DOWN THE COLOR KNOB TO ADJUST THE ALT CONTROLS



**WARM SPRING
& TREM**

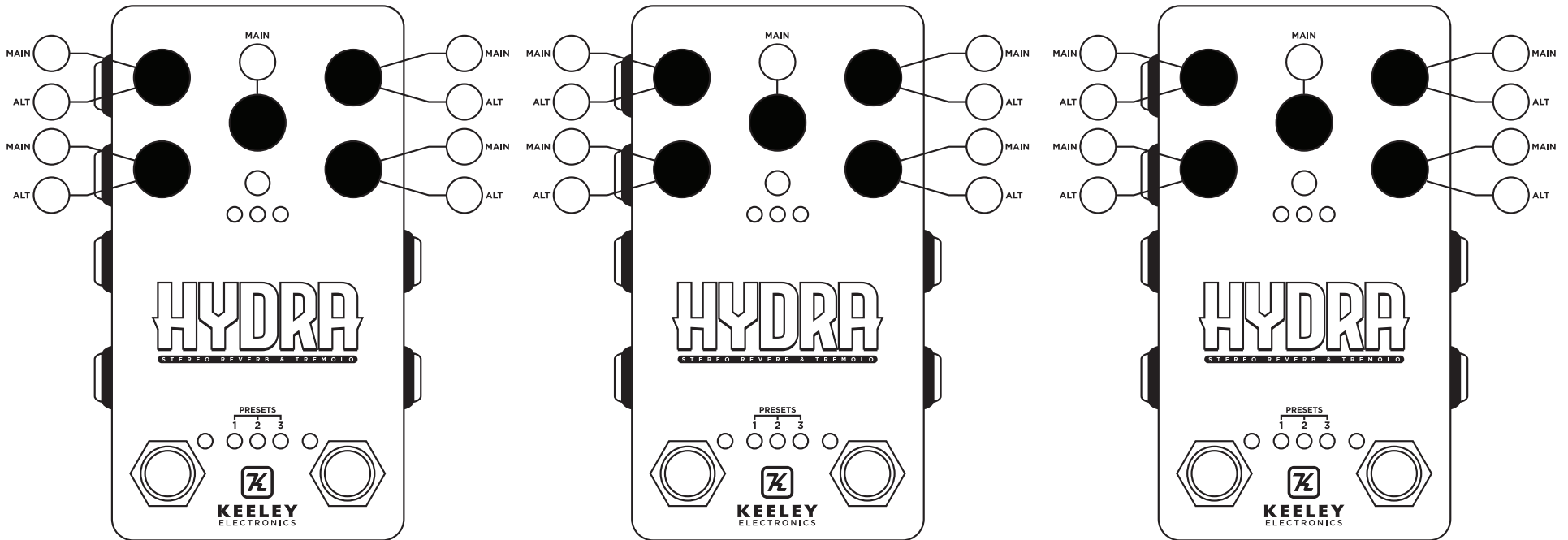
**DEEP BLUE
DREAMING**

**VINTAGE
SUN**

YOUR HYDRA SETTINGS

Write in your favorite settings for the HYDRA Stereo Reverb & Tremolo

TIP: HOLD DOWN THE COLOR KNOB TO ADJUST THE ALT CONTROLS



TECHNICAL SPECIFICATIONS

9V Neg-Tip DC Supply
115mA

Input Impedance, 1M / Output Impedance, 10K

True-Stereo Input and Output
True Bypass or Buffered Trails
Analog Dry-Thru Blend

HYDRA STEREO REVERB & TREMOLO

HYDRA QUICK START GUIDE

Jump right in to the HYDRA Stereo Reverb & Tremolo

TREMOLO MODE

RATE - Sets the rate of the Tremolo

DEPTH - Sets maximum amount of volume reduction of the Tremolo

TREMOLO FOOTSWITCH - Turns the Tremolo on and off

REVERB MODE

DWELL - Sets the length of the Reverb trail

COLOR - Sets the tone of the Reverb trail
(Can also be pressed and held to access alt controls)

MIXER - Sets the level of the Reverb

REVERB FOOTSWITCH - Turns the Reverb on and off

MINI TOGGLE - Selects between Spring, Plate, and Room Reverb Types

(Hold COLOR knob and use Mini-Toggle to select Sine, Harmonic, or Vibrato Tremolo)

ALT CONTROLS

Hold the COLOR knob down while adjusting RATE, DEPTH, DWELL, and MIXER knobs to engage the

TREM SYNC, TREM LEVEL, WET/DRY, and REVERB MODIFIER controls, respectively.

PRESETS

SELECT PRESET - Double-tap TREMOLO footswitch, then tap REVERB footswitch to cycle through presets. Tap TREMOLO footswitch again to select chosen preset.

SAVE PRESET - Once changes to the control knobs have been made (including alt. controls), double tap the TREMOLO footswitch or press the COLOR knob. Cycle to the desired preset location with the REVERB footswitch, then hold the TREMOLO footswitch to save your changes.

INFINITE HOLD

When Reverb is engaged, hold the REVERB footswitch to enter Infinite Hold mode. Release to exit IH.

TRAILS

Press and hold the TREMOLO and REVERB footswitches for 2 seconds.

TREMOLO TAP TEMPO

Press and hold the TREMOLO footswitch for 1 second. Tap TREMOLO footswitch 2-3 times to set tempo.

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