



# echoczar

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## analog stereo delay

- Two completely independent, foot switchable, delay time settings, with individual LED indicators, (green and yellow). Featuring long, (100% analog) delay time, with a range of 50ms. to over 1 full second (1000ms.) Switch between delay time settings on the fly, near instantly, or sliding with pitch-shifting madness. You choose by adjustment of the “Slide” knob. Max Slide gives about the 5 seconds of pitch-shifting, and then settles into the “new” delay time gracefully.
- Mono or Stereo operation, create any stereo field you desire, from a centered, focused, field, to a wide expansive soundscape. It is all possible with combinations of the output “Phase” switch, and active “Mix” control. The Phase switch makes no audible difference, when using one amp-mono.
- The Effect Out “Mute/Normal” toggle switch is useful when using 2 amps- stereo. This allows the user to “mute” the “wet” amp when foot-switching the echoczar into the Bypass Mode. When switched to “Normal” both the wet and dry amps are true bypass, hardwired to the input jack. When switched to “Mute” the wet amp is muted (silent) and the dry amp is true bypass, hardwired to the input jack. NOTE: leave this switch in the “Normal” position when using 1 amp-mono.
- The “Vintage/Modern” toggle switch allows for a choice of Repeat “voicing” - The Vintage Mode is warm and thick, the Modern Mode is brighter with more detail. Plus, to these modes you may add one of two Multi-head Modes.
- The Multi-head Modes are inspired by the various multi-head tape machines. A three position, center “off” toggle switch, adds either “Multi-Slapback” or “Multi-Reverb” to either the Vintage or Modern modes, providing a great deal of variety. The Multi-Sb (slapback) Mode sounds like two delay units in series, with the first delay set for a quick slapback repeat, and the second delay set for a longer repeat. (NOTE: for best results, the echoczar’s delay time setting needs to be over 300ms, with a 50/50 wet/dry Mix). After several repetitions, (depending on the echoczar’s delay time setting), these two separate repeats will either ping-pong, stutter, or morph into each other, and using the “Feedback” foot-switch (or Expression pedal) will provide very interesting feedback (self-oscillation) effects. The Multi-Rv (reverb) Mode sounds like delay plus plate-style reverb, and is useful for amps which do not have reverb. (NOTE: this is not a wet, surf-style, reverb). Very interesting feedback is also easily obtained in the Multi-Rv mode. WARNING: both Multi-head Modes will feedback (self-oscillate) if the Repeat knob is maxed.
- The “Echo/Delay” toggle switch allows for a choice of Repeat “character” - The Echo Mode provides Repeats which decay in a natural manner, and provides smooth droning feedback (self-oscillation). The Delay Mode provides Repeats which can go “on and on” and is useful for music styles which need punchy, rhythmic repeats. The feedback (self-oscillation) in this mode is wild, loud and choppy.



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- Foot-switchable “Feedback” (with red LED indicator) and “Safety” knob, allow you to adjust exactly how soft or hard, you want the feedback (self-oscillation) to come in. Dial in a short sustaining tail, or nearly endless sound-on-sound droning, or a sudden, insane, UFO landing. Switch Feedback “off” and glide smoothly back to normal repeats without missing a beat.
- The all analog echoczar does not feature tap tempo. However, the Delay time knobs are larger and taller, so they can be adjusted with your foot without disturbing your other knob settings.
- The “Repeat” knob, when set full clockwise, in the Echo Mode, provides approximately eight repeats, and will Not induce “runaway” feedback (self oscillation). In the Delay Mode, you can expect 10-15 repeats, and at full clockwise - wild runaway feedback, especially when combined with the Multi-head Modes. When the Repeat knob is set at minimum (full counter-clockwise) you get one repeat, in ALL modes.
- Two Expression pedal jacks. One bypasses the Delay 2 (Yellow channel) delay time knob, allowing Expression pedal control of the Yellow channel delay time. (This is not a substitute for tap-tempo but rather for “special effects”). The second Expression pedal jack bypasses the Repeat knob, (and works for Both the Green and Yellow channels), allowing Expression pedal control of Repeats, from 1 repeat (heel down) to the onset of feedback/self-oscillation (toe down). This allows for “real time” control of droning feedback, and reserves the Feedback foot-switch for more radical feedback effects. This versatility makes the echoczar an incredible tool. NOTE: 1/4” stereo TRS cable must be used for expression functions.
- Active “Mix” knob goes from 100% “dry” to 100% “wet”. (50/50 mix is 12:00 straight up). This allows the echoczar to be used in front of an amp, or in either a parallel or series effects loop. NOTE: effects loop use, gives the lowest possible noise.
- The “Soft-Mix” channel-assign toggle switch (three position, center “off”) allows either Delay 1 (Green channel) or Delay 2 (Yellow channel) to be assigned a “mix” that is less wet. This is not a “fixed” setting, generally providing a 60% reduction in “wet” signal to wherever the Mix knob is set. For example, if the Mix knob is set at 12:00, and you switch Soft-Mix “on”, it would be the same as moving the Mix knob to about 9:00-10:00. Soft-Mix is very useful for a proper slapback, or even a very saturated fuzz tone, leaving the remaining delay channel, free to have a “wetter” mix.
- Hardwire True Bypass switching with “on” indicator (Red LED).
- 18 volt DC operation, terrific headroom, gracious when overdriven. A Dunlop 18v regulated wallwart is supplied for USA, UK, or Europe (choose when ordering). Power jack is the standard 5.5 x 2.1 mm. center tip- negative.
- The echoczar can be powered by the Voodoo Lab Pedal Power 2 PLUS, by using a “Y” power cable and outlets 5 & 6. NOTE: set the (PP2+) DIP switch to “NORMAL”.



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- H.O. (High Output) mods are available for the original Pedal Power and Pedal Power 2, and are NOT OPTIONAL when powering the echoczar. NOTE: a custom “Y” power cable can be “exchanged” for the supplied wallwart. Please specify this (and “Y” cable length) when ordering.
- The echoczar’s headroom makes it a great tool for studio use. The echoczar may be used at line level, to create a stereo image from a mono track, and is fantastic for vocal processing, and will make it a little difficult to go back to digital delay plug-ins.
- No aluminum electrolytic or ceramic caps in the signal path. The delay line is made up of new production, analog BBD chips that I scope test and match. I don’t trust “trimpots” and none are used anywhere in the circuit, this assures you of reliable, drift-free, peak performance.
- The housing is heliarc welded .120 wall 1020 mild steel, with a .060 aluminum bottom plate, attached with four threaded rubber feet.
- Industrial nickel plating, standard. NOTE: this finish is designed for durability. It is not a “show” finish. It will be full of “character” and will take on a beautiful patina as it ages. These boxes are designed to be installed permanently on a pedal board and “stepped” on, not polished with a soft cloth and admired.

### SPECIFICATIONS

Input Impedance: > 500K ohms  
Output Impedance: < 50K ohms  
Vintage Mode delay time: 100ms. to over 1000 ms.  
Modern Mode delay time: 50 ms. to over 750 ms.  
Delay line headroom: 4v p/p @ 1% THD  
Current Consumption: 150 ma. @ 18v dc.  
Signal to noise: 90 db dry only  
60-70 db wet only (depends on settings)  
Dimensions: 8 1/2” W x 4” D x 2 1/4” H  
(knobs add 1” to height)  
Weight: approximately 4 lbs.

### NOISE COMPARISON

A TS-9 set: Drive-Max, Tone-Max, Level-12:00  
Has the same “hiss” when “ON” as the echoczar  
NOTE: the TS-9 is not known as having too much “hiss”,  
However, test for yourself.