



# angel chorus

## stereo string ensemble

## features & specs

- The angel chorus is a 100% analog, tri-stereo string ensemble, featuring two separate footswitchable outputs. Baseline setting is all knobs at 12:00, mode toggle up. (Vintage Mode)
- The angel chorus is an 18v design. The recommended power supply is the Dunlop ECB004US. Do not use a 9v power supply.
- The angel chorus may be used Mono-In / Mono-Out or Mono-In / Stereo-Out. For use with one amp, either channel A or channel B may be used. For example, if using one amp and the channel A output, you will not use the channel B foot-switch, channel B Depth knob or the channel B Volume knob. Vice versa if using only one amp and the channel B output.
- The Vintage / Modern Mode toggle switch is global, affecting both channel A and channel B. The Vintage Mode is more intense - the Modern Mode is more subtle.
- The Lo Speed knob, Hi Speed knob, and the Feedback knob are all global, affecting both channel A and channel B.
- The Lo Speed knob adjusts the rate of slow churning within the chorus sound. The flashing Yellow LED indicates the actual Lo Speed rate.
- The Hi Speed knob adjusts the rate of fast vibrato within the chorus sound. The flashing Green LED indicates the actual Hi Speed rate.
- The Feedback knob features a 12:00 center detent. In the center detent position, the feedback is completely off. Turning the Feedback knob clockwise adds positive feedback, which tends to enhance treble response. Turning the Feedback knob counter clockwise adds negative feedback, which tends to enhance bass response.
- Individual Depth knobs for channel A and channel B. Each Depth knob offers a range of 100% dry when full counter clockwise, to 100% wet when full clockwise.
- Individual Volume knobs for channel A and channel B, which allow matching the bypassed volume regardless of Depth and Feedback settings. Unity gain is approximately 12:00.
- For stereo (two amp) applications, channel B has a Mute / Normal toggle switch which allows the choice of muting the channel B output when foot-switching to the bypass mode. This option can be useful in creating extra musical drama. The angel chorus footswitches are placed so that both may be stomped at the same time or individually as need be. Please leave the Mute / Normal toggle switch in the Normal position when using just one amp.
- In angel chorus setups using two amps, it's very important to observe proper grounding of the entire rig to prevent ground loop hum or buzz. Since most amps will have a grounded power plug (3 prongs), using two amps with grounded power plugs can create a ground loop. The simplest solution is to place a 3-prong to 2-prong plug adapter on one of the amp's power cord plugs (either amp, but not both). A completely isolated pedal-board power supply (like the Voodoo Lab Pedal Power) will assure that a ground loop is not created from your pedal board.



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- In angel chorus setups using two dissimilar amps (brand, type or vintage), it's possible to have hum/buzz even with proper grounding. In this circumstance, just one amp will have hum or buzz. The amp with hum or buzz will likely have a power polarity miss-match. If the amp has a polarity switch on the back, try flipping the switch. Or, if the amp has a vintage two prong power plug, just unplug the power plug, flip the plug over, and plug it back in. If the amp has a grounded power plug, use a 3-prong to 2-prong plug adapter, flip it over, and plug it in. Note: Some adapters have one prong taller than the other; this type won't work without grinding/filing the *taller* prong to the same size as the other one.
- Hardwired, True-Bypass switching for both channel A and channel B, with each channel having its own ON indicator (Red LED).
- Like all toneczar products, the angel chorus operates on 18 volt DC (no batteries). A Dunlop 18v regulated wallwart is supplied for the USA, UK, or Europe (choose when ordering). Power jack is the standard 5.5 x 2.1mm. center tip - negative.
- The angel chorus can be powered by any version of the Voodoo Lab Pedal Power by using a "Y" power cable and two Pedal Power outlets. Note: Set the Pedal Power DIP switch to *NORMAL*. A custom Y-cable can be exchanged for the supplied wallwart. Please specify this (and Y-cable length) when ordering.
- No aluminum electrolytic or ceramic caps in the signal path. No internal trim pots, DIP switches, socketed parts, ribbon wire or push-on connectors. Instead, thru-plated, FR-4 epoxy glass pcb, Mil-spec components, hand soldered, hand wired, scope tested and tuned.
- The angel chorus is offered in two finishes, powder-coat matte black or the optional polished aluminum. (Note: This is not a "show" finish. It will be full of character, matching the rest of the toneczar product line.) These products are designed to be installed on a pedal board and stepped on, not polished with a soft cloth and admired.

### SPECIFICATIONS

Input Impedance: > 500K ohms  
Channel A Output Impedance: < 50K ohms  
Channel B Output Impedance: < 50K ohms  
Current Consumption: 100ma. @ 18v dc.  
Signal to noise: 90 db dry only  
60-70 db wet only (depends on settings)  
Dimensions: 7 1/2" W x 4 1/4" D x 2 1/4" H  
(knobs add 1" to height)  
Weight: approximately 2 lbs