



Tech 21 Roto Choir Leslie Cabinet Simulator Pedal

The uniquely complex, spacious swirl of a real, mechanical Leslie rotary-speaker cabinet is a truly inspiring sonic effect, but unless you're predominantly an organ player who will spend the majority of your gig making full use of it, the logistical challenge of using the real thing is often prohibitive. As a consequence, there has been a ready market in 'Leslie simulators' for years, and not just for keyboard players.

Guitarists have been hijacking the effect for almost as long as it has been around, but many pedal-format effects purporting to offer Leslie simulations actually sound nothing like the real thing, simply offering a fast modulation of pitch and/or tonality. The 'classic' Leslie employs separate mechanical modulation systems

for high and low frequencies, and it is the interaction between these two, as they ramp up and down at different rates, that creates the complex effect we know and love.

Tech 21's hybrid analogue/digital Roto Choir pedal succeeds in replicating the ramping modulation aspect of the sound beautifully — as well as any hardware simulator I've heard, in fact. That's the bit that takes place in the digital realm, but the effect is undoubtedly aided by the pedal's all-analogue tube-amp and speaker simulation. Leslie cabinets have integral, relatively low-powered, tube power amps, which are easily driven into a warm, gentle distortion, forming an essential component of the overall effect. The Roto Choir pedal's Drive control governs the amount of SansAmp-like simulated tube overdrive, with a Level trim for matching the output to a variety of destinations, and a Speaker Sim switch for direct recording or use with full-range PA speakers.

There's plenty of level available for driving line inputs directly, but if you plan on plugging the Roto Choir into the front end of a guitar amp, you'll want to keep the level control well down to ensure that noise remains at acceptable levels. You can restore unity gain through the pedal by upping the drive setting to around halfway. Real Leslie cabinets are not the quietest, and the Roto Choir's self-noise is about comparable with the real thing, especially when feeding a line input, or when patched via an amp's effects loop. The electronically buffered bypass is clean and quiet, with silent switching.

If you use a TRS jack out of the pedal, the output is actually stereo, and this adds greatly to the authenticity and spaciousness of the effect. You can also fine-tune your virtual miking point with the Position knob, the sound being subtler and more integrated when 'miked' further away; when miked close-up, the level modulation deepens and the Doppler effect becomes more exaggerated, just like the real thing.

Speed control is an essential element of any Leslie simulator, and here we have a Fast/Slow footswitch and a knob to set the Top Speed that will be attained in the Fast setting. The slowest speed is preset, and, although possibly not slow enough for some, is fine for my preferences. You can also achieve a Brake setting, in which the rotors are fully stopped but the sonic signature of the speaker system is retained, by setting the Top Speed control to minimum. Overall, the speed controls seem a sensible compromise that will allow most people to get most of what they want, without over-complicating the interface.

The remaining controls consist of a useful two-band EQ, bypass footswitch and a Bi-amped option that determines

whether you are replicating a two-way system like a Leslie 122, with rotating drum for the low-frequency cone driver and a spinning top-end horn, or one of the simpler systems that just have a rotating drum and single cone driver. The audible effect of the latter, while not as complex, is still very musically usable, especially on guitar.

There aren't that many remotely authentic Leslie simulators available with a 9V DC, compact pedal form-factor, so Strymon's Lex Rotary (slightly more expensive, at \$299) stands out as an apparent direct competitor for the Roto Choir. The differences lie primarily in that the Lex is all-DSP-based, whereas the Roto Choir's tube emulation and speaker sim are analogue, and the Lex also offers a stereo signal path and remote control. Keyboard players may value the latter facilities, while guitarists may be drawn to the Roto Choir's analogue bits. Not everyone needs a Leslie effect, of course, but if you do, you'll probably want it to be an authentic-sounding one, and Tech 21's Roto Choir is certainly that!

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£ £249.

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