

A Leslie™ cabinet used with guitar or keyboard is one of the most wonderful sound effects and was used throughout music history. It's also one of the most complex sounds in the world! Don Leslie invented the rotating speaker phenomenon in 1941. Originally Hammond Organ was not even interested in the product. Ironically the Leslie™ was sold to CBS in 1965 who would later sell it to Hammond in 1980. Suzuki Musical Inst bought Hammond in 1992 and is owner of the Leslie trademark.



The Leslie with a Hammond organ soon became the coveted sound in gospel, blues and rock music. The classic B3 with a Leslie cabinet created a special sound incorporating swirl, grind, and warmth like no other. The most common model is the Leslie 122 cabinet, but others include models 145, 147, 251 and other offshoots.



Eventually many guitarists found the Leslie sound amazingly useful for guitar. The Beatles, David Gilmore, Eric Clapton, Danny Gatton, Joe Walsh, and many others incorporated this rotating speaker sound into their music. The Fender Vibratone used by SRV was also used to achieve rotating speaker sound, but it used one speaker and rotating cone.

So what's behind the sound? An amplifier crossover splits the frequency bands to a tweeter and bass speaker. Electric motors rotate a horn mounted above tweeter speaker and a drum horn mounted under a bass speaker. As the horn and drum rotate, it produces an amplitude change like a Tremolo, plus a pitch bend referred to as Doppler™ Effect (think a car driving by while laying on the horn). To sum it up, there's a lot of pitch bend, frequency & amplitude modulations, phasing and some amp clipping to give it that wonderful chewy, swirly sound! The tweeter horn is smaller, so it ramps up and down faster than the bass drum when changing between fast and slow speeds.



Unfortunately, a Leslie cabinet is expensive, large, heavy, and not practical for the road. For these reasons many musicians have gone to guitar pedals like the RotoSIM™ and RotoSPIN™, which offer very convincing rotating speaker sounds, small size and reasonable cost.

The Leslie sound is one of the most complex sounds to recreate, and arguably the toughest and longest design efforts that DLS Effects has accomplished. The reward is realistic rotating speaker effects successfully used by professionals and weekend players throughout the world! Musicians using the RotoSIM and RotoSPIN include: Tesla, Rascal Flatts, Richie Sambora, Johnny Hiland, Brent Mason, Oz Noy, Guthrie Govan, Brian Bell, Russ Hewitt, and many others.



The RotoSIM was the first DLS rotary effect and is stereo in/out, a bit lusher, and has expression pedal speed input. The more recent RotoSPIN is smaller, pronounced, and cuts through a bit more live. It does both Leslie™ and Vibratone™ style sounds. You can hear samples and see videos on our site. www.dlseffects.com

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