

Guitar Shop

BY TONY NOBLES

Pedalboard Secrets

Hi, welcome to the Guitar Shop. Come on in.

People ask me a lot of questions about equipment which is great as long as they're asking about guitars. Pedals are another thing altogether. It seems a lot of people have trouble taking effects and pedalboards to a level where they are reliable and don't degrade the signal from the guitar. I might not have the answers, but at least I know who to turn to for the lowdown. What say we take a trip down to the Austin Rehearsal Complex (the ARC in Arc Angels) where amp builder/designer and general electronics guru Lee Jackson hangs his hat. Lee has also building pedalboards for discriminating guitarists since 1979. He has all the answers regarding pedalboards. Let's see what he can tell us about how to do it right.

Vintage Guitar: Lee, give the readers a brief history of what you've been involved with prior to setting up shop in Austin.

Lee Jackson: I started taking apart equipment and modifying it at about age 12. I went to work at B.C. Rich in '76, installing electronics, and worked for Pignose until '79, when I worked with Paul Rivera doing work on amps and building pedalboards. In 1980 we both went to work for Fender, as designers. I worked on the Twin II, Concert, Deluxe Reverb II, and the London Reverb amps. In '83 I started Metaltronix, and built amps and preamps, as well as doing modifications to Marshalls and Fenders. Investors caused enough trouble for me to close that in 1990. In '91 I worked for Ampeg and designed the VL Series. After that, I built the Lee Jackson amps sold by Horizon. That ended in '96, again due to problems with investors.

VG: What artists have used your gear?

LJ: Too many to list completely, but a few are Paul Gilbert, Zakk Wylde, George Lynch, Steve Vai, and Allen Holdsworth.

VG: What makes a good pedalboard, and how is it done?

LJ: It has to sound good and be bullet-proof. There are lots of things to get right on both levels. I start with the birch plywood topped in fiberglass. It gets the aluminum channel around the edges and handles on both ends. The effects are mounted with velcro

on their backs, which works very well. Making it work properly is much more complicated. All of the boards have power supplies and buffer amps. Without these, the board will sound terrible. The main complaint people have with effects is that they are noisy and suck the tone out of the guitar by loading down the pickup. The power supply and buffer amp are critical in addressing these problems. It is also good to create loops that remove from the chain any effects that aren't being used. They are accessed by the pedals in front.

VG: What is important about the power supply?

LJ: It is very important to supply the correct voltage. I make them so that they deliver the exact voltage of a new Duracell. It is also important to have a dedicated supply for each device so all the circuits aren't tied together, which eliminates crosstalk.

VG: What do buffer amps do?

LJ: They basically keep the signal amplified to a consistent level. They keep the effects from loading the pickups, as well. They are an important component of the board, as is the power supply. You really couldn't have a board that sounds great without them. Some effects just don't work the same without one. Like the Vox Wah; it sounds different with every guitar you plug into it because they send it different levels of input. The buffer amp really helps effects like that.

VG: How are the devices connected?

LJ: I use George L's for all the signal path. It really has no equal. I use Canare for the rest. I use the Switchcraft right-angle connectors instead of the George L's because I usually end up with such a tight fit.

VG: Guitarists are always being told to put their effects in the right order. What is the right order?

LJ: That's a trade secret...but I'll tell you anyway: guitar, wah, envelope, compressor, distortion, chorus, flanger, delay, reverb.

There, the secret is out. The wah and envelope need to go first because they need an uncompressed signal,

although a buffer amp should be used before them.

All the delay-based effects should go



VG: How much do these boards cost?


LJ: Anywhere from \$800 to \$1,600.

VG: What are you working on now?

LJ: I am doing pedalboards, amp mods, and building amps. I've designed a new amp that is the best I have ever done. I am beginning the process of finding a company interested in building them or license the design. I enjoy the design aspect of my work very much. I also have a video that shows amp repair and modifications, and I service all the amps I have built in the past.

Tony Nobles works at Precision Guitarworks, Austin, Texas, where he builds custom guitars and does repairs and guitar refins. Send questions, comments and other correspondence to Precision Guitarworks, 9705 Burnet Rd., Suite 109, Austin, TX 78758.

near the end, followed by the reverb. It sounds better to add reverb to the delayed signal as opposed to delaying the signal that already has reverb.



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