

Fig. 1. Pepper's front-panel controls include buttons to engage insert paths for pedals and pro gear.



LITTLE LABS

Pepper

DI, RE-AMPER, AND INSTRUMENT UTILITY BOX

BY MIKE LEVINE

STRENGTHS

Excellent sound quality. All analog circuitry, including vintage-style transformers. Dual insert circuits allow blending of effects pedals with balanced pro gear. Re-amping capabilities. Two ground-lift switches. Adjustable input impedance. Two instruments can be blended.

LIMITATIONS

Complicated to use. Manual assumes prior technical knowledge. Back-panel output jacks are too close together to handle larger-than-average 1/4" plugs.

\$660
littlelabs.com

Little Labs has a well-deserved reputation for making quality pro audio gear, much of which falls into the utility category—helper boxes that solve common problems, provide connectivity, or offer high-quality I/O. The all-analog Pepper fills all three categories.

Billed as a “Swiss Army knife of interface creativity,” Pepper is remarkably versatile: It can be used as a DI, re-amp, audio blender, and impedance matcher, among other things, and it offers pro-quality inputs designed for guitar, bass, and other electric instruments.

Pepper's metal chassis is similar in size to a standard DI box, but deeper. The unit is powered by a hefty external 16V power supply that is about three times the size of a typical wall wart and connects to your AC outlet with the included IEC cable. The end that plugs into Pepper has an outer ring that can be tightened so that the cable can't be pulled out, which is sure to be handy in live performance applications.

The front-panel layout is dense—two jacks, seven buttons, and three knobs, all in a tight space (see Figure 1). The manual assumes a certain amount of technical knowledge on the reader's part, and many home-recordists may find it a little hard to follow. The best description of what Pepper does and how to use it comes from a text-based video on the Little Labs site.

8 MILLION WAYS TO DI

Once you start using Pepper, the design structure becomes clearer. For example, with a 1/4" instrument input and output on the front panel, and a mic-level XLR output on the back, you have a straightforward

DI setup: Plug into the instrument input, then connect the XLR output to your interface or mic preamp.

As with many functions on this unit, there's more than one

option. You can also output your DI signal from the rear-panel Exp TRS Out to a balanced TRS 1/4" input. (This output can also be used for connecting to other Little Labs boxes such as the PCP Instrument Distro guitar splitter.) The Exp TRS output is transformerless, unlike the XLR (see Figure 2).

To compare its DI sound to my usual direct-guitar recording chain (which includes an FMR Audio Really Nice Preamp), I tracked guitar and bass through Pepper, alternating between its XLR and Exp TRS outputs. I also tracked similar parts without Pepper into my preamp's instrument input. When I A/B'ed the results, I found that the tracks recorded through Pepper sounded subtly richer and fuller.

TAKE A LOAD OFF TELE

Pepper's front-panel Load Off switch changes the input impedance to 10 megohms, which is essentially no load. When it is disengaged, the default setting is 1 megohm, although this can be adjusted using the tiny Load Adjust trim pot on the rear panel.

Bass guitars with passive pickups tend to sound better with no load, and passive guitars sound good with a load. I was able to confirm these assertions by testing the input with a Fender Strat and P-Bass. The Strat did sound a bit improved with the load on (at the default setting), and the P-Bass sounded better with it off.



Fig. 2. Back-panel I/Os include XLR and balanced 1/4" outputs.

INSERT CABLE, PRESS HERE

Some of the most exciting aspects of Pepper are its unusual routing options, most notably the two insert paths, Pdl Insert and Pro Insert. These inserts make it possible to connect effects pedals into the signal path through the Pdl Insert and outboard studio effects through the Pro Insert, or both simultaneously.

Each insert has corresponding 1/4" input and output jacks on the back panel, and on/off switches on the front. (The insert circuits can also be engaged using an external TRS footswitch, sold separately). The Pdl Insert jacks are compatible with high-impedance, instrument-level signals through 1/4" TS guitar cables, whereas the Pro Insert jacks

handle line-level balanced signals through 1/4" TRS cables.

For example, you could have, say, a Tube Screamer and wah-wah connected to the Pdl Insert path and then pass it through an LA-2A or other processor with balanced TRS I/O. Or, you could use Pepper's inserts and balanced I/O to make a high-impedance stompbox into a pro-level processor—very cool!

The Inst Thru knob controls the amount of dry signal going to the output. The Pro Send and Pro Return controls let you further adjust balances between them. You can instantly cut the Insert returns out of the circuit by using the Return Cut button on the front panel.

BACK TO THE AMP

Re-amping is easy with this device. Connect a 1/4" TRS output from your interface to Pepper's Pro TRS input, and then connect the front-panel instrument output to your amp (see Quick Tip below). Because you're hooking together multiple pieces of gear when re-amping, you're likely to have ground-loop issues. Pepper has two clever ground-lift buttons, DI Earth and Inst Earth, which are designed to eliminate hum; they are quite effective.

Pepper's flexible architecture enables it to take on other duties, such as connecting and mixing two instruments together. Plug one source through the Instrument input and the other in the Pedal TS In Jack, then set the level of the former with the Instrument Thru knob and the latter with the Pro Return knob.

But rather than use each function on its own, the designer, Jonathan Little, intends Pepper to be a "central hub of connectivity." For example, studio musicians or engineers can hook up pedals and a recording device simultaneously using the inserts, while a live player can properly interface pedals and pro-level gear at a gig, taking advantage of transformer isolation between amps and front-of-house mic connections.

HOT PEPPER

Pepper has a unique and impressive feature set and pristine sound quality. Considering its price, it might be overkill if you're looking for a simple DI or re-amp. But if you want to take advantage of its unique functionality for interfacing your pro gear and pedal effects—in the studio or onstage—Pepper is a worthy investment. ■

Quick Tip: Setting up Pepper for Re-amping

To set up for re-amping quickly, connect a TRS cable from an output on your audio interface to Pepper's Pro TRS input. Next, connect the front-panel instrument output on Pepper to your amp. (If you're using any effects pedals, connect them between the Pepper and your amp). In your DAW, set the track you're re-amping to the same output as the one connected to Pepper. Make your amp and send it through your audio interface to a new channel that is set to record. When you start the DAW's transport, the old track will play back through Pepper and into your amp, and the mic will record it from the amp onto the new track.

Basic re-amping configuration

