

MIX

Professional Audio and Music Production

Little Labs Lmnopre Mic Preamp

by [Barry Rudolph](#)

FIELD TEST

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May 2007 Issue

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The Little Labs Lmno Microphone Pre-Amplifier was born out of necessity. Originally a sought-after, custom-made stereo line amp designed in the early 1980s, once it became a one-of-a-kind, prototype mic pre, the buzz quickly built after Bruce Springsteen, Don Henley, Sheryl Crow used it. Engineer/producers Tchad Blake and Mitchell Froom touted it in a 1994 Mix magazine article.

The Lmno is a single-channel mic pre-amp in an aluminum 1U chassis that has many new features and useful operating modes not normally offered in currently made mic pre-amps. Popping the hood reveals excellent construction with front and rear panel mounted pots, switches and pushbuttons that are also secured to a single thick circuit board. All the controls are detented and have finely engraved graduated metal knobs for easy recall. There would be no worries taking this unit on the road in your tracking rack.

OPERATING MODES AND FEATURES

Clearly designed by someone who has worked in a recording studio, one brilliant and unique feature is the built-in, switchable Little Labs' IBP Phase Alignment tool. This set of passive, all-pass analog filters allow the rotation of the pre-amp audio's phase throughout 360 degrees. Phase alignment is a crucial issue when combining two microphones placed on the same source or when combining the microphone and DI signals of bass or guitar. Thoughtfully, for external use in a mix, this section is made available via rear panel line level XLRs separately from the pre-amp.

I liked the ability to instantly toggle between the front panel XLR mic jack and a second XLR on the rear. This let me A/B mics on a singer or two mics that were placed differently on the same source. I also liked the low-frequency resonance control, which blends in an adjustable, musical LF peak without adding a specific equalizer circuit.

For added sonic color, you can overdrive the output transformer without distorting the rest of the all-discrete circuit. For a pristine, transparent sound, bypass the output transformer for transformerless operation. If you don't need to ride level, then you can switch the master output trim pot out of circuit. With the master output off, the bypass acts

as an output mute. Inside the chassis, space is provided for installing your favorite mic input transformer, or you can temporarily connect one using the 5-pin XLR on the rear panel.

To establish full gain potential (+74 dB) and avoid switching transients, the manual recommends stabilizing the unit for an hour before use, but mine seemed fine in 20 minutes. It's powered by an external, linear 47-volt "line-lump" supply that does not have a fuse.

IN THE STUDIO

Because there are so many options and operating modes, this pre-amp's sound runs anywhere from squeaky clean and clinical to very 'colorful'--all cool beans!

There are two mic gain controls on the Lmno--Lo Gain for 20dB to 48dB of gain and High Gain with 40dB to 74dB. These two gain modes are switched by a push button but you are not adding another amplifier to get higher gain--the single, fully differential Class-A gain stage requires two pots for optimum performance over such a large gain range.

My first test involved a female vocalist singing into a Mojave MA-200 tube mic. She required the low-gain mode (about 40 dB), as did most of my recording projects. The unit offers a tremendous amount of gain (+31dBm max output), making it viable for Foley or ambient recording. The sound was extremely clean, neutral and quiet — clean enough for me to hear the mic's output compress on louder levels and the inherent noise floor of the mic's 5840 tube. For this mic and singer, I preferred using the transformerless output, but I made sure I was driving a fully balanced input on the next piece in my recording chain. I found no differences in the noise floor in either mode; high gain is just more!

The Lmnopre's LF resonance effect was most pronounced on vocals, sounding just like the LF proximity effect that occurs when a singer hugs the mic. My female singer "pops" easily, even with a screen, so she prefers to sing further away from the mic. I cranked up the LF resonance effect, and it sounded like she had moved within inches of the mic. If you like using proximity for the sound but don't like using windscreens, you'll love this control--it adds no additional EQ or circuitry to the audio path. On other sources Low Freq Res is subtle---a little is good for bass instruments.

DIRECTLY YOURS

The Lmnopre has two 1/4-inch DI input jacks labeled "A" and "B". Input A is best for passive pickups and has -5dB to 23dB gain in low gain mode or 15dB to 49dB in high gain. It has a 10-megohm active buffer amp before the custom DI input transformer, while input B has -11dB to 17dB in low and 9dB to 43dB in high and connects directly to the 50k-ohm primary of the custom DI input transformer. I used this input for synths and guitars with active pickups. If you use the same DI path all the time, then you can set jumpers to configure the other DI's 1/4-inch jack as a thru to feed a guitar amp.

I recorded a Fender Precision bass direct using A and miked a Fender Bassman amp with a Neumann U47 FET mic going through the mic pre in the studio's API console. The IBP phase-alignment tool was handy when I combined the DI and mic signals to one track. The bassist played each string separately while I rotated the IBP knob until all notes were at about the same dynamic level. The DI bass sound was very clean and clear. I wanted more "hair" on the sound (like on a guitar amp with master volume), so I turned the master output knob down and boosted the gain. Saturating the output transformer produces an extreme sound with more attack than a tube-based preamp breaking up. You can do this on any source, but instruments with more sustain, such as guitars and basses, sounded best.

On electric guitar, I used the API console and the Lmnopre with two Shure SM57s on a single amp. Both mics were four inches away, with one aimed at the speaker cone's exact center and the other off to the side but pointed at the center. The IBP control let me change the tonality of the mics' combined sound--anywhere between thin and phase-cancelled to big and fat in which most of the frequencies were in phase and summing together. When panning the

two guitar signals left and right, rotating the IBP to about 90 degrees produces a very wide stereophonic image; be sure to check it in mono!

A VERSATILE RECORDING TOOL

A totally a professional unit, the Lmno allows control of the path (and therefore the sound quality) by providing choices, options, and customized touches starting at the circuitry level. With very useful features like the IBP, dual XLR mic inputs, dual DI inputs, Low Frequency Res control, and variable gain staging, the unit sells for \$1,680.

Little Labs, 323/851-6860, www.littlelabs.com.

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