

# Pickup Profile: Lane Poor Music Co.

By David C. Gross

Lane Poor is an interesting character—he has been involved in the manufacture of musical products for quite a long time. Not as old as Methuselah, Lane has wound pickups and helped build F2Bs with Ron Wickersham at Alembic, designed the Lane Poor Minima Bass which was nominated for “Most Innovative Bass of the Year” by M.S.R. in 1991, was the first production manager for Monster Cable, consulted at the Wally Heider and Automat Recording Studios, and helped start Stars Guitars. Walking through his enormous loft in Fall River, Massachusetts, I was shown the step by step process of assembling a pickup.

About twelve years ago, Lane started work on a moving coil acoustic guitar pickup. He feels the most important aspect of a moving coil is that it offers musicians an extremely clear signal to which they can add volume, tones, and effects as they see fit, instead of trying to remove unwanted sounds and color already built into the pickup. Lane says, “When you listen to any instrument acoustically, you hear a sound in your head. Then, when you plug it in and after it all goes round and round, you expect that sound to come out over there. Our pickups capture this sound, no peaks, just plain fat and clean.”

Lane classifies electromagnetic pickups into two groups, moving coil and moving magnet. Within the moving magnet variety there are four classes, single coil, humbuckers, stacked coil, and bilateral twin coil. The bilateral has the advantage of hum canceling and still sounds like a single coil, the cleanest you can get.



LANE AT THE MOLDING BENCH

begins with plain copper-clad printed circuit board material. It is sheared to size, resulting in tiles. Magnets are then glued to the tiles. For Jazz™ pickups, they glue a series of pole pieces in between the magnets. For the wider aperture Soap Bar pickups, they use a precast assembly. For the Jazz™ pickups, the pole pieces are taped off, and any bare metal is painted with an insulation varnish. The result is a bobbin, ready to wind.

Lane and his right-hand man, George Correia, use an Adams-Maxwell Model 1201-1 Precision Winder with a Model 1250 Traverse that insures winding pitch accuracy to within 0.0001". Typical winding time is 35 minutes.

After winding, the resulting armature is insulated with tape, the output cable is soldered into place with a brass sleeved strain relief, and the armature is entirely shielded with lapped seam 0.001" brass foil. This assembly is kept in the oven at 110° in order to encourage rubberized epoxy to completely surround the windings. The armatures are placed in a bath of the rubberized epoxy, and evacuated to 29.3" in a Bell Jar. They cycle it five times to insure no bubbles remain between the wires, insuring ultra-low microphonics.

The rubberized armatures are then compressed from the sides and top, placed in the oven again, and allowed to cure overnight. These rubberized armatures are then prepared for the dedicated molding process. With less than the thickness of a guitar pick from the side of the armature to the mold, precision is an absolute must! They attach precision cast spacers that hold the armature away from the tops and sides of the molds. They evacuate the proper amount of mixed epoxy, pour it into the molds, and then evacuate the molds for three complete cycles, at five minutes each. Then it's back into the oven again for overnight curing.

Next, the molds are broken down and the pickups are pressed out with a custom-made 2-ton press. All the pickups are then hand flat sanded on the top and sides, fully radiused on two router tables, sand-blasted, drilled for logos and mounting holes and final checked



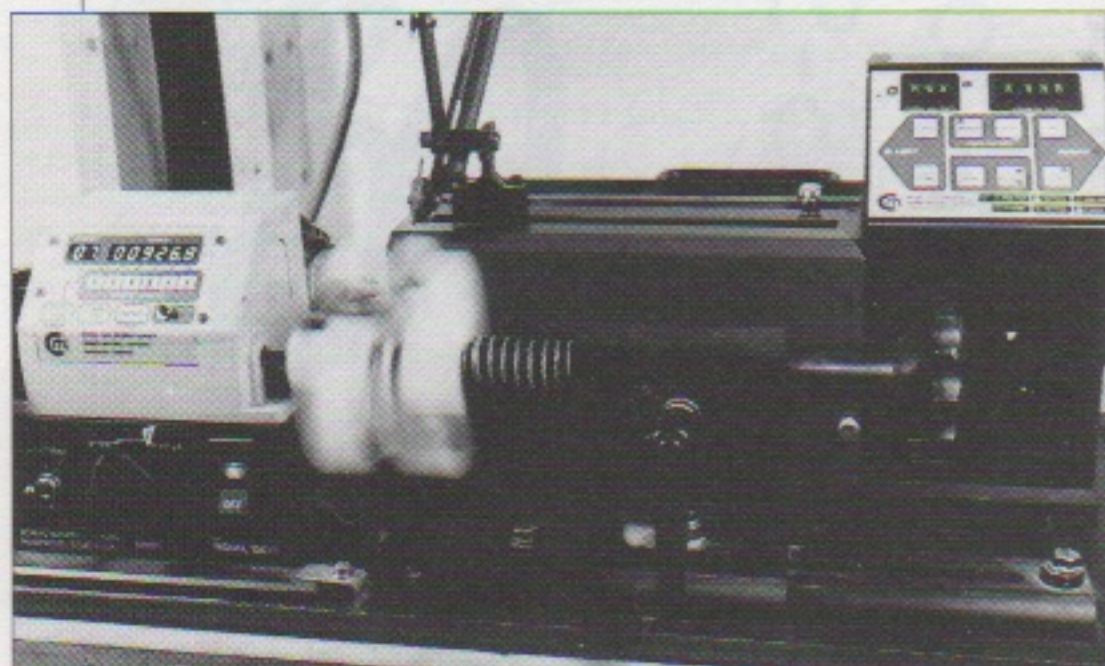
FLAT SANDING PICKUP TOPS

for cosmetic flaws. Touch-ups are done, and the holographic based logos are inserted, covered with a clear epoxy resin, evacuated as above, and then it's back into oven for another night

of curing.

After a final top-sanding, they paint the finished product with Armor-All (guitar polish works too), wipe off the excess, do the final electronic and noise test, register and

apply a serial number, and there you have it! Remember folks, its a minimum of 78 discrete production steps with 37 parts requiring a minimum of four days. Their pickups are guaranteed for life, regardless of owner or instrument, and magnetic field strength (and the



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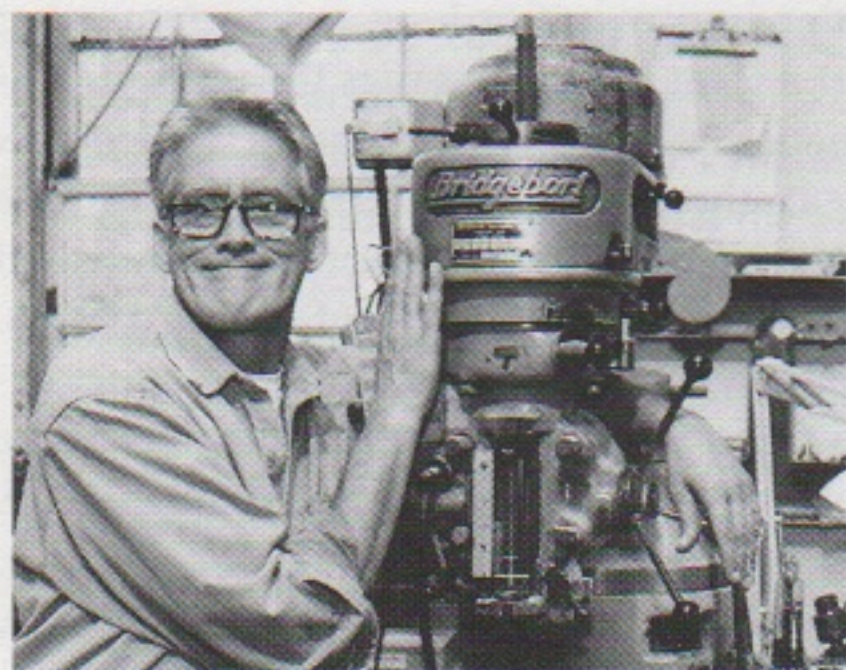
THE OVEN



**SANDBLASTING TOPS & SIDES**

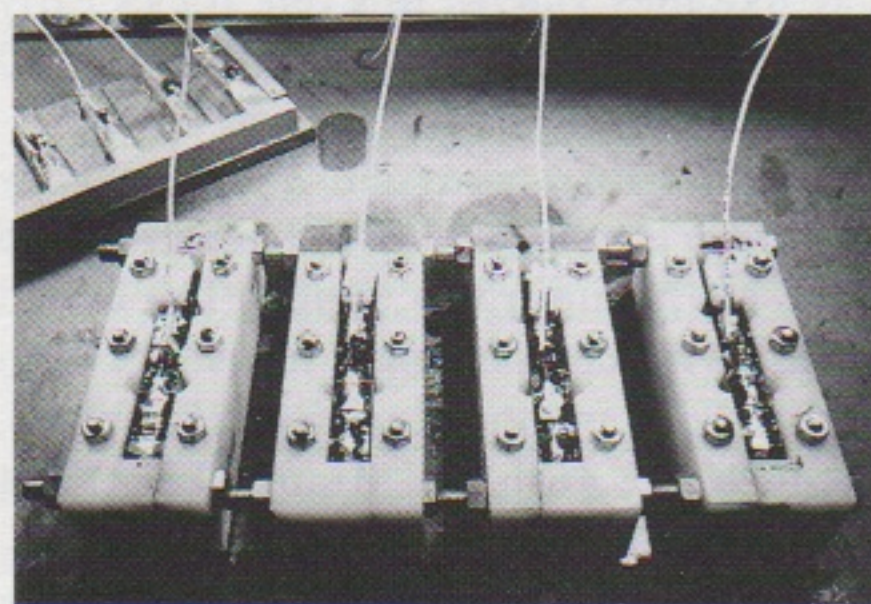
resulting electrical output) are all included.

I had the wider aperture Soap Bars put in both my Fodera Fretted and Fretless Imperial Basses and the sound is crisp, clean, and even, all the way down to my low A (thanks to the Hipshot Detuner) or up to my high E 28 frets above.



**LANE AND BETSY THE BRIDGEPORT, FOR MAKING ACCURATE TOOLING, MOLDS**

I have just shot an instructional video for Homespun Tapes and the bass was so quiet,



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the recording engineer asked me if my bass was on! I think that's the best testament.

I want to thank Lane and George for their time and hope this article has helped us all learn about pickups. Any comments or questions can be forwarded to Lane Poor Music Co., 347 Pleasant St., Fall River, MA 02721. Phone (508) 679-1922 or fax (508)679-1904.

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