

# ACOUSTIC TIMBRE

## INSTALLATION MANUAL & USER'S GUIDE



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### 1. PACKAGE CONTENTS

One (1) Acoustic Timbre Preamp  
One (1) faceplate  
One (1) Prewired Strapjack Assembly  
Two (2) self-stick wire clips  
One (1) Ribbon Transducer  
Four (4) black flathead screws

### 2. OVERVIEW AND CAUTIONS

The Acoustic Timbre preamp is designed for use with the L.R. Baggs Ribbon Transducer pickup only. We can not warranty the unit when it is used with other pickups.

The installation of this system involves detailed woodworking; therefore we recommend that this system be installed by a professional dealer/installer. We do not provide installation advice or support for home or hobbyist installations. A metal routing template designed specifically for this product is available as a separate item. This template only outlines holes for the preamp controls and four mounting screws, and is mostly recommended for users that intend to use this system without the metal faceplate (leaving the controls unlabeled and protruding through small holes in the wood for a more discrete appearance).

**Installers: please read the instructions carefully before proceeding, and be sure that this product will fit the guitar properly before making any alterations to the instrument.** We will not be responsible for any damage to the guitar or personal injury resulting from installation, improper installation, use or misuse of the product.

### 3. PREAMP INSTALLATION

1. Locate a suitable place on the side of the guitar for the control plate. The area on either side of the waist is usually a good choice. Before committing to a location, be sure to inspect the inside of the guitar for any obstructions (braces, lining, etc.) that might interfere with the preamp. The side should curve no more than 1/16" over 3" at the chosen location.

**Note: There must be clearance inside the guitar to plug in the pickup cable after the unit is installed.**

2. After deciding on the location for the control plate, hold it firmly against the side of the guitar and mark the center of each of the four holes in the corners of the plate with a pointed object. Cover the drilling areas with masking tape and drill a 1/16" hole in each of these pilot holes.

3. If you will be using the faceplate, create a paper template for the cutting area that is roughly the same shape and size as the white rounded rectangle on the faceplate beneath the L.R. Baggs logo. If you are uncomfortable cutting without a firm guide, create a paper template and use it to cut a guide from plexiglas or another suitable material. Installers that prefer to not attach the faceplate should order a metal cutting template for this product (available separately). To use this template, attach it firmly to the side of the guitar using the #4 x 1/2" sheet metal screws and spacers (provided with the template).

4. Chuck a 1/8" cutter in a Dremel router (with base) so the shank, not the blade, of the cutter will contact to template when the router base is in contact with the template in routing position.

5. Ease the router, making a plunge to full depth, into the center of each slot to avoid cutting the template. Then carefully remove all the wood within the slots using the sides of the template slots as routing guides.

6. Remove the template and drill the four 1/16" holes out to a new size of 1/8". Be careful here as these holes are near the outside of the plate and mistakes will not be covered up by it. De-burr the inside and outside of the slots and holes with sandpaper or a file. Remove the masking tape carefully.

7. We strongly recommend that cross-grain reinforcing braces be added to the inside of the guitar. Scrap spruce or mahogany of approximately 3/16" x 3/8" will do nicely. These should be glued on the inside of the guitar just above and below the preamp box and should extend across the entire side from lining to lining.

8. Fit the control plate to the curvature (if any) of the side now. If there is a curve in the side, the plate may be bent to fit with the fabrication of a simple jig. If the side has a 1/16" curve over 3", cut a 3/8" curve in a piece of 2x3 scrap wood with a band saw. Use this jig, with a piece of paper between the plate face and the jig, in a vise to bend the plate. **Do not bend the plate freehand as this will cause uneven curvature.** This step requires some judgment because the plate is rather resilient and must be over-bent to set it to the right curvature. It is unlikely that your first attempt will be perfect; modifying the jig is essential to perfecting this.

9. Prepare the guitar for the strapjack by drilling a clean 1/2" hole in the tailblock of the guitar using a step drill. It's a good idea to mask off the drilling area to avoid chipping the finish. Remove the strap ring from the end of the jack. There should still be a star washer and locking nut on the middle of the jack. Put the strapjack into the pre-drilled 1/2" hole using the nut and star washer as a depth guide. The jack should stick out enough to tighten the strap ring onto the threaded barrel of the jack. Once the depth is set and the barrel is in the hole, screw the strap ring onto the barrel until the assembly is tight. Use caution when tightening the strap ring so you don't crack the finish.

10. Position the preamp on the inside of the guitar with the slide controls and knobs in the routed holes in the side of the guitar. Place the control plate on the outside of the instrument over the preamp, and screw it to the preamp using the black oval-head machine screws provided. This will sandwich the side of the guitar between the control plate and the preamp. **Do not over tighten as this could crack the side.**

11. Remove the strap ring, retaining nut and one washer from the end of the jack. There should still be one sar locking washer, one flat washer, and a nut remaining on the mid section of the jack. Bring the jack down into the soundhole and through your pre-drilled hole in the tail block. Using the internal nut (be sure to include the flat and star washers), set the proper depth that will allow the entire threaded brass section to protrude from the end of the guitar. With the jack in place, lay the remaining washer over the threads and attach the external but until it's tight. Finish by attaching the strap ring (it should cover the retaining nut and washer) carefully so as to not crack the finish of the guitar by asserting too much pressure.

12. Affix the output wire to the guitar side using the self-stick wire clips. This will keep the wires from rattling during movement.

#### 4. RIBBON TRANSDUCER INSTALLATION

1. For optimum performance of this pickup, the bridge slot must have a clean, flat surface free of any debris or over-spray from the finish. The slot must be a minimum of .125" (1/8") deep but we suggest a depth of .187" (3/16") to avoid excessive saddle tilt (see figure 4).

2. Installing a .090" pickup in a .120" slot is not recommended.

3. Do not remove the black material that is affixed to the bottom of the pickup.

4. Avoid unnecessary hard bending of the pickup. Repeated removal and replacement of the pickup during the course of the installation is not advised.

5. Do not use shims under the saddle or pickup as a remedy for string balance problems or to adjust the action.

6. Failure to secure the loose end of the pickup under the bridge will produce bizarre audio consequences and eventually ruin the pickup.

7. The quality of sound, output level, balance and feedback resistance are all determined by how well the pickup mates with the saddle and the bridge. Uneven or partial contact between the saddle and the pickup will cause a boomy sound with low output, excessive body sensitivity and poor string balance.

##### Installation:

1. Remove the strings from the guitar. If you wish to duplicate the string height exactly, scribe a line along the front edge of the saddle where it extends above the bridge. The line will later be used as a guide when removing material from the bottom of the saddle to compensate for the thickness of the pickup (.025" total).

2. Remove the saddle to drill the hole for the pickup. The drill bit needs to be as large as the saddle slot will allow. Inspect the inside of the guitar and note the position of the braces in relation to the saddle slot. Drill at either end of the slot on the side that will enable you to avoid all braces as you penetrate the top, as shown in figures 1 and 2.

3. Feed the pickup into the slot from inside the guitar with the yellow side up. Inserting a toothpick or similar object through the hole from the outside is helpful in finding the location of the hole on the inside of the guitar. Sand the bottom surface of the saddle on a belt sander until the scribe line (from step 1) lines up with the bridge top. Leave the saddle just a hair tall and finish sanding the bottom by hand. It is best to do this against a machined flat surface with fine sand paper. Use a straight edge with a strong light source to inspect the flatness of your saddle.

**Important:** The fit of the saddle in the slot is the single most important factor in this installation. It is crucial that the bottom of the slot and the lower surface of the saddle be flat to make even contact with the pickup. The saddle should fit in the slot loose enough to be able to be just pulled out with your fingertips. If it is too tight or binds at all, this will have a negative effect on the string balance. Likewise, if the saddle is too loose, it will have a substantial forward tilt when under string pressure, causing it to make poor contact with the pickup (see figure 4).

A saddle that fits correctly in the slot will have a slight forward tilt under string pressure (see figure 3). It is necessary to compensate for this angle by intentionally sanding a slight tilt in the bottom of the saddle so that when it leans forward it sits flat on the pickup (see figure 3). The saddle material can be a key element in curing string balance problems. This pickup responds most favorably to a rigid saddle material such as bone. Using softer, more flexible materials may cause the outside strings to be lower in volume than the other strings.

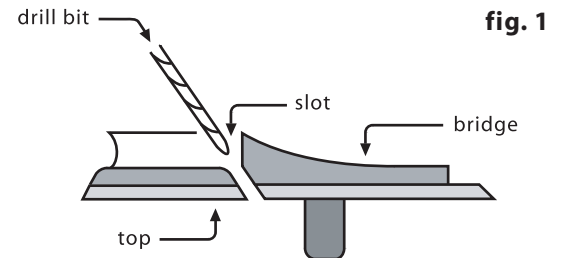


fig. 1

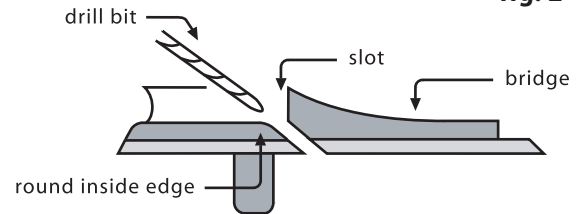


fig. 2

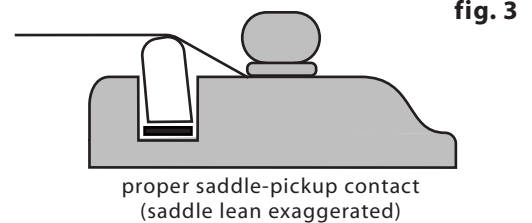


fig. 3

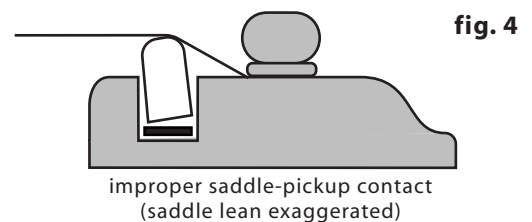


fig. 4

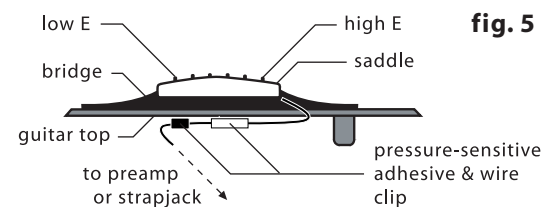


fig. 5

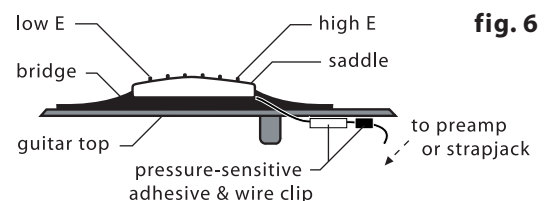


fig. 6

If you are replacing the saddle, prepare the bottom of the new one as explained above (see step 3). Place it in the slot and scribe the same line on the front of it like the original saddle. To duplicate the action, lay the old saddle on the new one, match up the scribe lines, and trace the shape of the old saddle onto the new one. We recommend either bone or Micarta for your saddle. Softer materials tend to sound overly boomy.

4. Insert the pickup all the way into the slot, lay the saddle on top of it and temporarily secure it with a piece of tape. Remove the backing from the adhesive on the end of the pickup hanging inside the guitar and attach it to the bridge plate or the underside of the top as shown in figures 5 or 6. Be careful not to place the adhesive over the bridge pin holes.

5. Choose a location for the wire clip between the pickup and preamp several inches away from the pickup. If there is a brace that the wire will cross, make a little slack in the wire so it does not touch the brace. Secure the pickup wire in the wire clip.

6. Plug the pickup into the preamp. If the pickup has enough wire, make a loop in it or attach the wire platforms to take up the slack and keep it off the sides.

7. Install a nine-volt batter (not included) in the clip on the back of the preamp. Be sure to observe polarity. Holding the end of the battery up from the end of clip will assist in clearing the rivets that hold the clip and make inserting the battery easier. Make sure that the battery snaps in firmly, then re-string the guitar.

## 5. USER'S GUIDE

The output jack has a switch built into it to turn the preamp on and off. The red LED marked battery will come on and stay on until you unplug and when the battery is low (6V) the light will flash to remind you to replace the battery. Do not leave the cord plugged in when not in use.

**Caution:** Before plugging or unplugging your guitar, be sure the volume setting on your outboard equipment is off. This will prevent a potentially damaging transient (pop) from hurting anything down line from it.

The Acoustic Timbre has a four-band equalizer with frequencies tailored to acoustic guitars. A typical EQ starting point is to boost the Low band a bit, cut the Mid (usually between .8k and 1.2k), add a touch of presence, and boost the High frequencies slightly. The midrange is quite sensitive and most guitars benefit from some cut here. Experiment to find the most effective frequency to cut by boosting the mid slider all the way and adjusting the mid tune knob until you have found the nastiest frequency. Then just pull the slider down until you get a pleasing sound.

The output level of the preamp is quite hot and you may find that it can overdrive some amps, effects, etc. If you hear distortion, just turn your volume down until it goes away. Your guitar can now be plugged into any P.A., sound system, stereo, tape recorder, direct box, effects processor, wireless transmitter or guitar amplifier.