

## Read Me First!

Installation of this product is a simple procedure, but we recommend this job only if you are an experienced repair technician.

## Requirements

### Saddle slot:

Minimum saddle slot length: 2.775" (70.48mm)

Maximum E to E string spacing at saddle: 2.5" (63.5mm)

### Soundhole

Minimum usable soundhole diameter: 3.875" (98 mm)

Maximum usable soundhole diameter: 4.125" (107 mm)

Maximum X brace height at soundhole: .5" (13mm)

The Ellipse Aura preamp is designed to fit in most flat top guitars without modification, but we cannot guarantee a drop-in fit with all instruments. Before you begin installation, pre-fit the preamp in the soundhole. Ideally, the preamp should lie flat, with the mounting bracket flush to the edge of the soundhole.

## Installation

### Attention: Observe precautions for handling electrostatic sensitive devices!

Install this product only in a static-free work area.



The electronics in this preamp are sensitive to electrostatic discharge (ESD), also known as static shock. Even a small static shock during installation can damage the preamp. Please read and follow the guidelines below to ensure the preamp is adequately protected from ESD during installation.

- Wear a grounding strap (connected to a grounded source) during installation.
- Keep this product in its anti-static packaging until it is installed.
- Handle the product only by the non-metallic edges. Avoid touching any of the components on the circuit board.

Once installed in the guitar, the preamp is adequately protected from ESD.

### Other precautions

- Do not short the battery leads or allow them to contact the circuit board during installation or Image upload.
- Do not allow the endpin jack to contact the circuit board during installation or Image upload.
- Attach the battery to the battery leads only after installation is completed.
- When separating the mounting bracket from the preamp do not pry up the ends of the bracket (at the magnets) or you will damage it. See instructions below for separating the preamp from the mounting bracket.

### Preliminary

1. Widen the endpin hole to  $\frac{15}{32}$ " (11.9mm) to accommodate the endpin jack.
2. Drill a  $\frac{3}{32}$ " hole (2.4mm) in the saddle slot for the pickup wire, no less than .100" (2.5mm) from nearest string. Install the pickup per Acoustic Matrix installation instructions.

### 1. Seal the mounting surface



To ensure a strong and reliable bond, you must now sand, clean and seal the underside of the soundhole where the preamp will mount.

1. Sand the underside of the soundhole down to bare wood. Take care to remove all residual lacquer, polish and dirt.
2. Use mineral spirits to clean the sanded area. Remove any excess oil, resin and dust from the exposed wood. Let the area dry before proceeding to the next step.
3. Seal the exposed wood with an appropriate coating.



Use only a coating that will bond the wood fibers and present a hard, uniform surface for the adhesive.

We recommend any of the following:

- Hide glue
- All purpose two-part epoxy
- Cyanoacrylate glue (higher viscosity, non-instant type).
- Carpenter's glue

Let the area dry before proceeding to the next step.

## 2. Test for fit

Before exposing the adhesive, test the preamp for fit. Locate the module flush with the edge of the soundhole, on the bass side. Center it between the transverse brace and the bass-side X brace (figure 1). If viewed as a clock face (neck at twelve o'clock), you will position the phase switch at nine o'clock.

## 3. Endpin jack

Install the endpin jack per Switchjack Installation Guide.

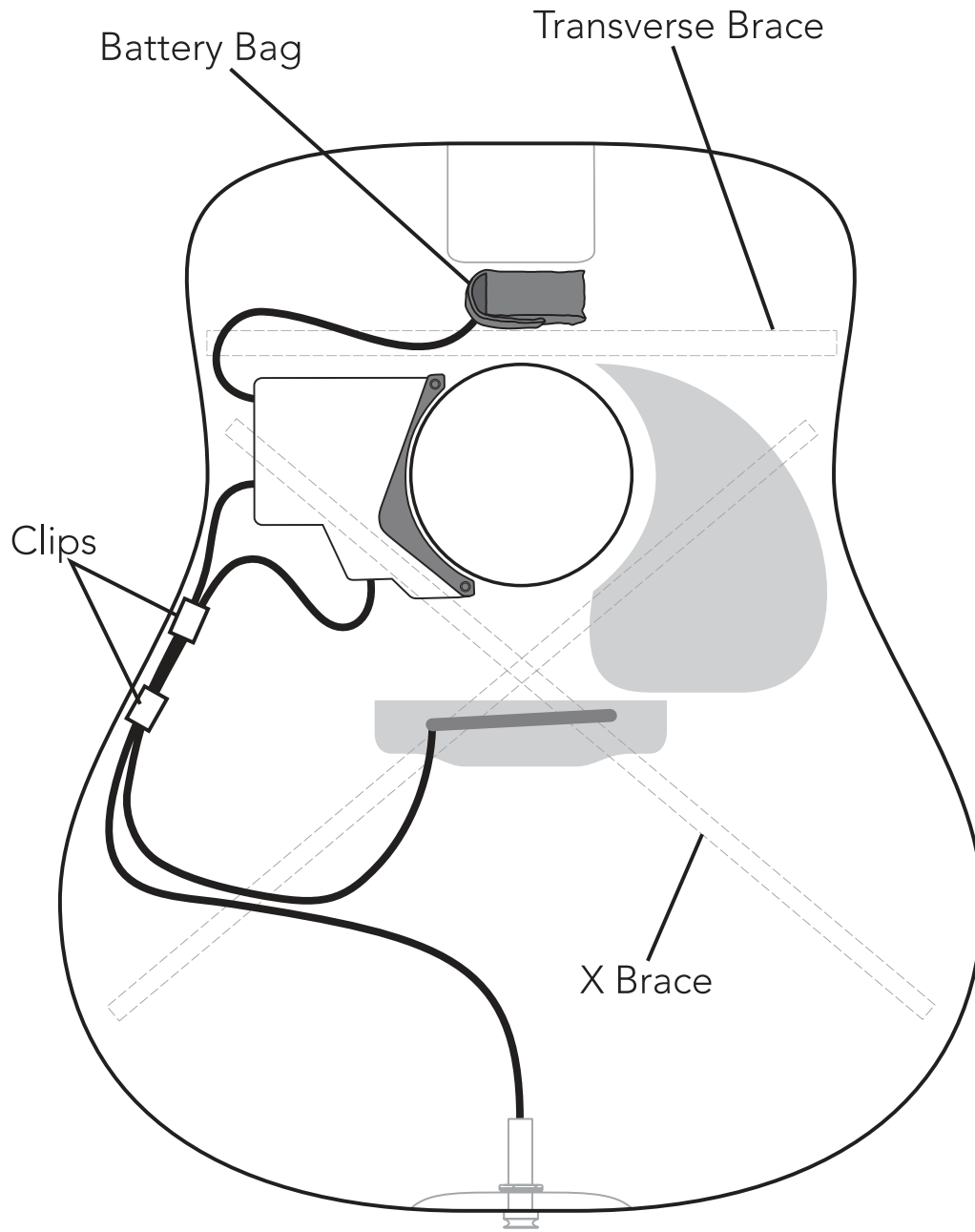
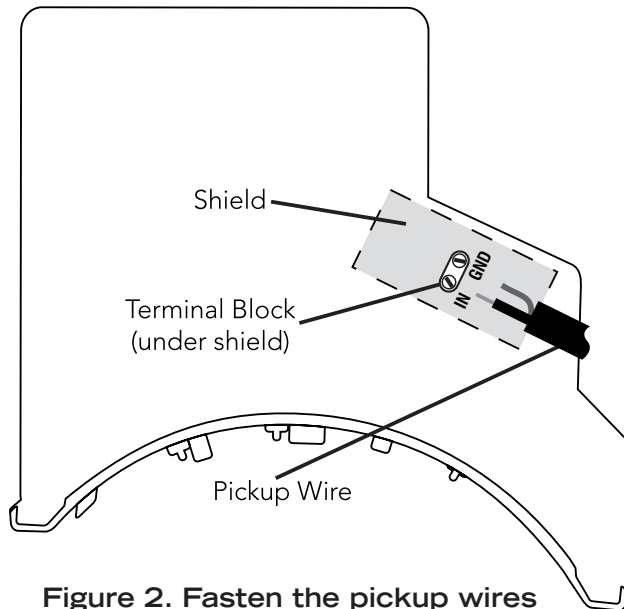


Figure 1. Component locations

**4. Fasten the pickup wires** to the terminal block on the preamp module (figure 2). The signal wire goes to the terminal marked "IN," and the shield wire goes to the "GND" terminal. Tighten the screws on the terminal block to secure the wires.



**Figure 2. Fasten the pickup wires**

#### **5. Fasten the preamp**

If the mounting bracket it is not already attached to the preamp, snap it in place now. Peel back the release film on the bottom of the mounting bracket and fasten the preamp to the underside of the soundhole. Apply even, steady pressure to the preamp to set the adhesive. The adhesive gains maximum hold after 24 hours.

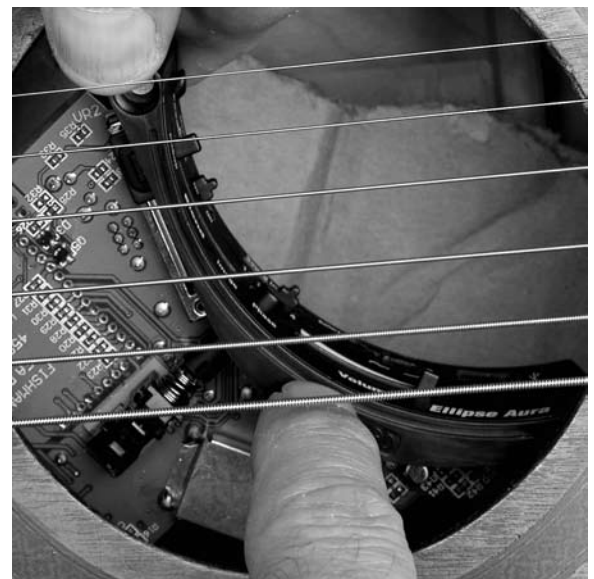
#### **6. Option: Separate the preamp from the mounting bracket**

Once the preamp is installed, you may separate it from the mounting bracket for better access inside the guitar. You'll need a heavy guitar pick to separate the two. Lodge the pick between the preamp and mounting bracket (figure 3) and twist until the preamp snaps away. Swing the preamp toward the soundhole, then separate it from the mounting bracket (figure 4).

**7. Secure the wires** inside the instrument with the supplied adhesive-backed clips (figure 1). Clean the area where you will mount the clips with mineral spirits. Let the area dry before continuing.



**Figure 3. Separate preamp from bracket**



**Figure 4. Release right side magnet**

#### **8. Battery bag**

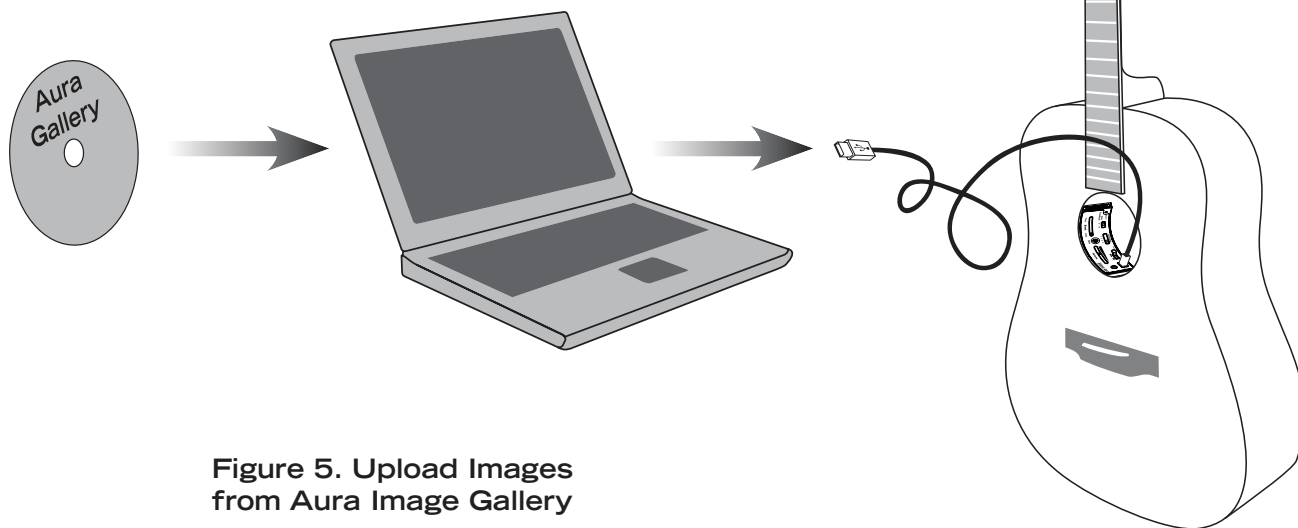
Install the battery bag on or near the neck block.

1. Clean the area where you will mount the bag with mineral spirits. Let the area dry before continuing.
2. Peel off the plastic film from the Velcro patch and attach the bag at the chosen location.
3. Carefully separate the bag from the Velcro patch. To set the adhesive, burnish the entire area of the patch, especially the edges.
4. Install a 9V alkaline or lithium battery. Tuck the battery into the bag and re-attach to the Velcro patch. The adhesive under the Velcro patch requires 24 hours to achieve a full bond, so take care to not stress the adhesive if you remove the battery bag after the initial installation.

## 9. Upload Images

Install the included Aura Image Gallery software on your computer. Connect the included "mini-B" USB cable between the Ellipse Aura preamp and the computer (figure 5). Follow the onscreen instructions to upload Images.

**Warning:** If you upload Images before installing the preamp, observe ESD handling and other precautions outlined in the beginning of these instructions.



**Figure 5. Upload Images from Aura Image Gallery**

## 10. Set Input Trim

The Input Trim is located below the USB port. Once the instrument is strung up and the battery is installed, set the input trim as follows:

1. Move the Image switch left to #1.
2. Hold down the Measure switch as you plug in the guitar.
3. Use a miniature jeweler's screwdriver to gently raise or lower the Input Trim so the Battery LED flashes occasionally with hard strumming.
4. To exit the setup, unplug the guitar.

For more convenient access, remove the preamp module from its magnetic base before you set the Input Trim. See figures 3, 4 and 6.



**11. Use caution when you clean the fingerboard or perform fret work!**

The powerful neodymium magnets used to secure the preamp will attract steel-wool debris and fret filings. These can damage the Ellipse electronics. As a precaution, cover the soundhole before you work on the fingerboard. Uncover only after all debris is removed.



**Figure 6. Adjust trim**