

MATRIX INFINITY VT  
MATRIX INFINITY MIC BLEND INSTALLATION  
GUIDE

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**Read Me First!**

*We recommend having this system installed by an experienced repair technician*

**PICKUP INSTALLATION**

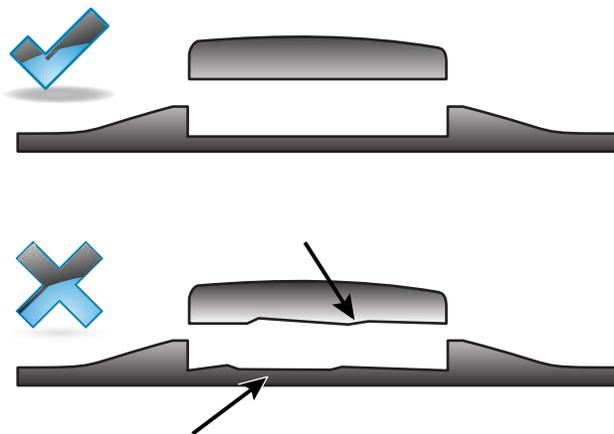
**Saddle Slot Requirements:**

Minimum saddle slot length: 2.775" (70.4mm)

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

**Observe the following precautions!**

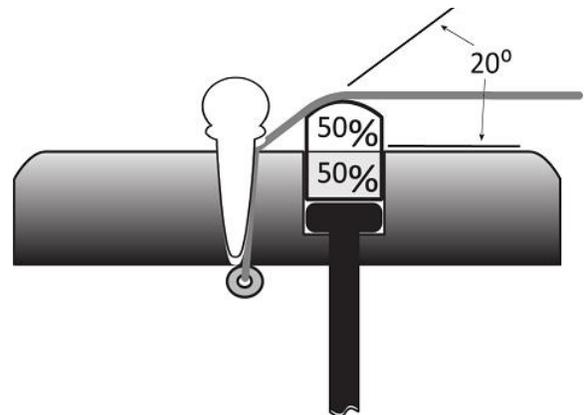
- Handle the pickup carefully. Do not trim the pickup to make it fit. Mishandling may tear the delicate foil shield, producing ground hum or intermittent signal.
- Do not shorten the pickup wire. This will result in poor pickup performance and loss of bass.
- Both the saddle and saddle slot must be flat and square for proper pickup performance and balance.



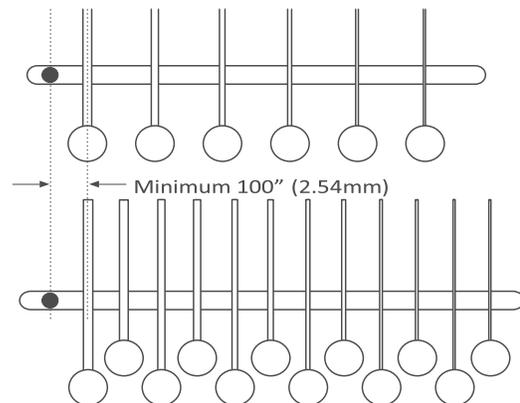
**Mechanical factors affecting pickup performance**

- Break Angle: To assure optimum pickup performance, there should be a 20° (minimum) string break angle across the back of the saddle. \*
- The 50/50 Rule: There is an important relationship between the overall saddle height and the bridge slot depth. We suggest that the saddle slot depth (with pickup installed) measures 50% of the total height of the saddle. If the slot measures greater than 50% the total height of the saddle, balance and/or output level of the pickup may suffer\*

\*Minimum 20° string break angle

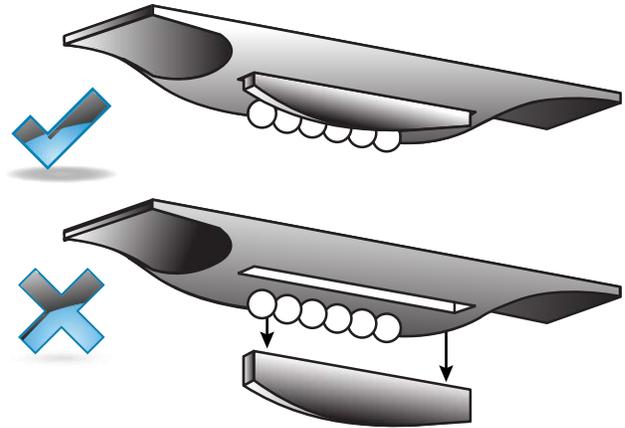
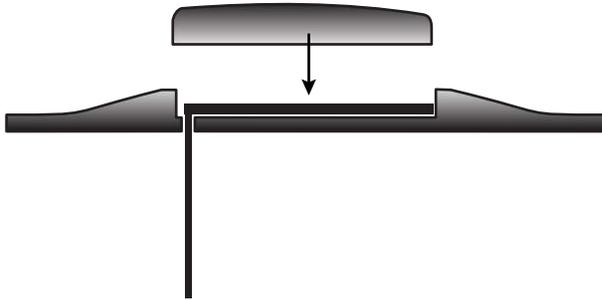


Locate the wire hole



1. Locate the center of the wire hole a minimum of .100" (2.5mm) from the closest string.
2. Mark the location where the wire will enter the saddle slot. Center the mark between the walls (width) of the slot and drill a .094" hole
3. Clear wood chips and foreign materials from the saddle slot.
4. Carefully insert (do not bend) the pickup. The pickup must fit loosely in the slot, without binding. If the corners of the pickup touch the radiused ends of the saddle slot, pickup failure could result

*Pickup Installation continued...*



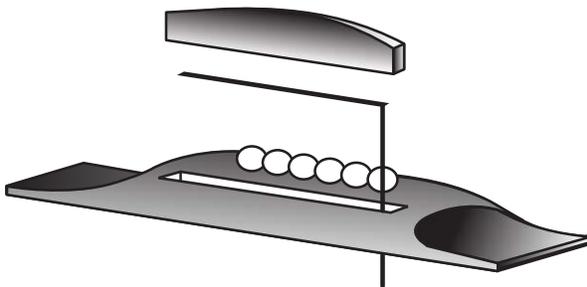
### **Prepare the saddle**

You may re-use your original saddle after the pickup is installed. To maintain your current action, you must remove material from the bottom of the saddle to compensate for the added height of the pickup. For Wide format pickups, remove .053" of material. For Narrow format pickups, remove .043" of material

### **New Saddle requirements**

Organic saddles (Bone or Ivory) are not structurally as consistent as synthetic materials and may not produce optimal string balance through the pickup. Synthetic materials such as Micarta™ or Corian™ are suggested.

Prepare a new saddle that fits properly in the saddle slot. The bottom of the saddle must be flat.



Remove only enough material from the width of the saddle to provide a sliding fit in the slot. To test for proper fit before stringing the instrument, turn the instrument upside down. The saddle should remain in the slot. You should be able to remove it easily with your fingers. If you need tools to remove it, it's too tight!

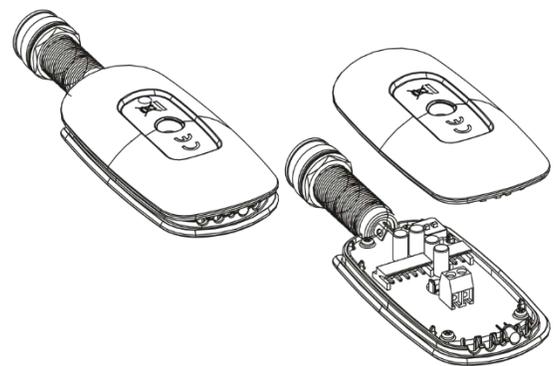
## **PREAMP INSTALLATION**

**Note:** For nylon string instruments or installation without the control module, refer to the **Installation Options** later in this install guide

After the pickup is installed in the guitar it's time to attach it to the preamp.

Prepare the endpin jack hole by drilling a 15/32" hole in the intended location of the jack. (If the guitar has an existing strap button, you will enlarge that hole to 15/32")

Open the preamp housing to expose the pickup input terminal block

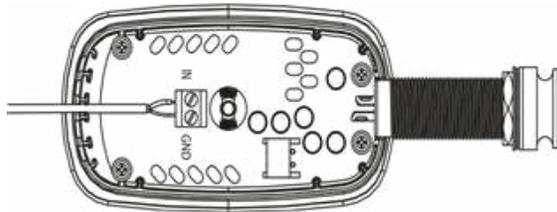


Bring the pickup wire out through the soundhole and fasten it to the terminal block on the preamp module.

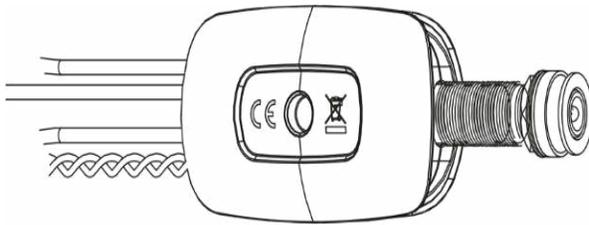
### Preamp Installation continued...

The signal wire goes to the terminal marked "IN" and the shield goes to the "GND" terminal.

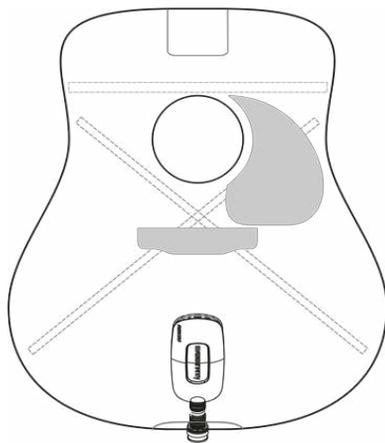
**Reminder:** Do not shorten the pickup wire. Tighten the screws on the terminal block to secure the wire.



Replace the preamp's cover being sure the wires do not get pinched by any plastic parts. The housing should easily fasten tightly when the screw is replaced.



Fasten the Preamp/Jack in the Endpin Hole

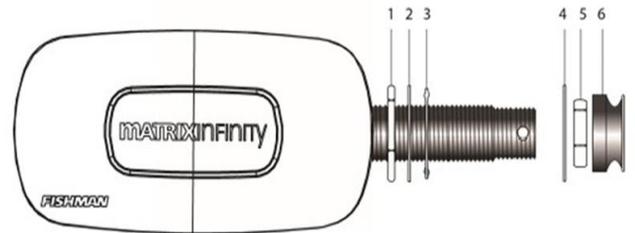


Follow this sequence when installing the endpin jack:

- 1 - Large Hex nut
- 2 - Large Dress Washer
- 3 - Star Washer

#### Guitar End Block

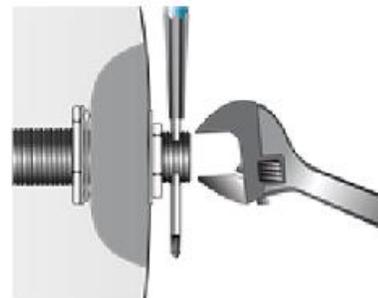
- 4 - Small Dress Washer
- 5 - Small Dress Nut
- 6 - Strap Button



Thread the large nut, dress washer and star washer down the jack towards the preamp body to allow the proper amount of the jack to go through the end block.

For proper fit, the Endpin Jack should protrude at least 5/16" (7.9 mm) and no more than 11/32" (8.7mm) outside the guitar's body.

Fit the small dress washer and nut over the end of the jack and tighten the nut with a 1/2" open-end wrench while counter-holding the jack in place with an Allen wrench or small screwdriver.

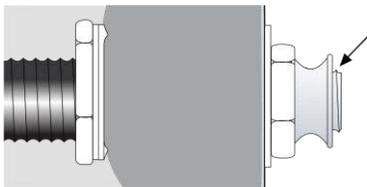


***Preamp Installation continued...***

Thread and gently tighten the strap button using rubber tipped pliers.



**Note:** With the strap button in place, the end of the jack should protrude slightly, so that when a plug is inserted, it will snap securely in place.



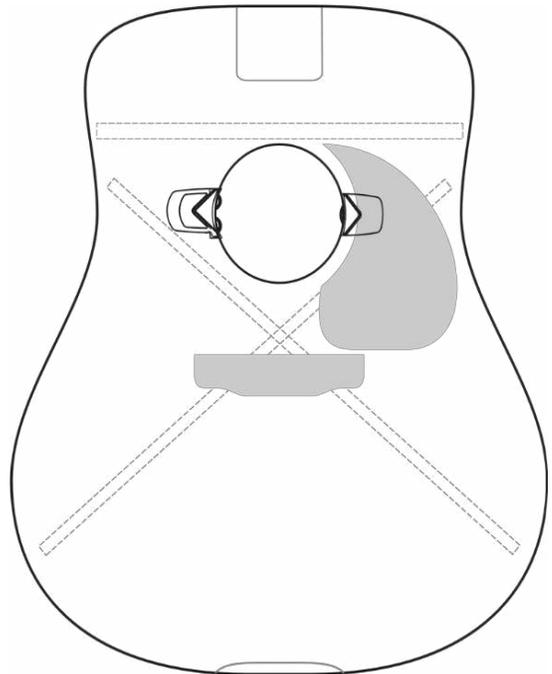
**VOLUME & TONE MODULE and BLEND MODULE** (Mic Blend only)

The Infinity VT and Infinity Mic Blend come ready to install into a steel string instrument. For steel string instruments, move to the next step: **Control Module Install**.

For Control Module Installation in a Nylon String Guitar see: **Classical Style Control Modules** on page 7

**Control module Installation**

*Control Module locations:*



Test the area where you will mount the Volume & Tone control module. Remove any lacquer and/or buffing compound from this area using fine grit sandpaper. Clean this surface with an alcohol wipe or a cotton swab moistened with rubbing alcohol. Let dry.

**Note:** For the strongest bond we recommend a water-based primer/sealer be applied to the bare wood inside the soundhole. A light film of yellow wood glue spread by fingertip works well for this application. Let the primer/ sealer dry before continuing.

### **Control Module Installation continued...**

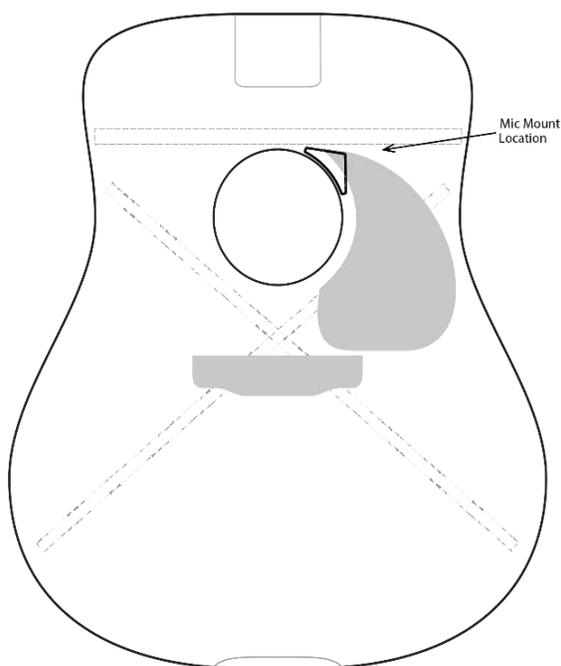
Peel back the release film on the bottom of the control module, add a small dot of gel type cyanoacrylate to the center of the adhesive and fasten the preamp to the underside of the soundhole. Locate the module flush with the edge of the soundhole, on the bass side, between the transverse brace and the bass-side x-brace (see illustration). Apply even, steady pressure to the module for 30-45 seconds to set the adhesive. The adhesive achieves maximum hold after 24 hours.

**Note:** *If installing the Infinity Mic Blend, repeat these steps to install the Blend module on the opposite side of the soundhole.*

### **Mic Module Installation** (Mic Blend only)

The Infinity Mic Blend mic module mounts in the soundhole adjacent to the neck block at the base of the fingerboard. The mount should be placed as close to the blend control module as possible. If there is a flat brace that will not allow the mount to sit on the edge of the soundhole, the mount can be placed directly on the brace.

**Note:** **For Nylon string guitars, or to accommodate guitars with unique bracing patterns, this position can be adjusted slightly to the left or right without adversely affecting the microphone response.**



Test the area where you will mount the mic module. Remove any lacquer and/or buffing compound from this area using fine grit sandpaper. Clean this surface with an alcohol wipe or a cotton swab moistened with rubbing alcohol and let dry.

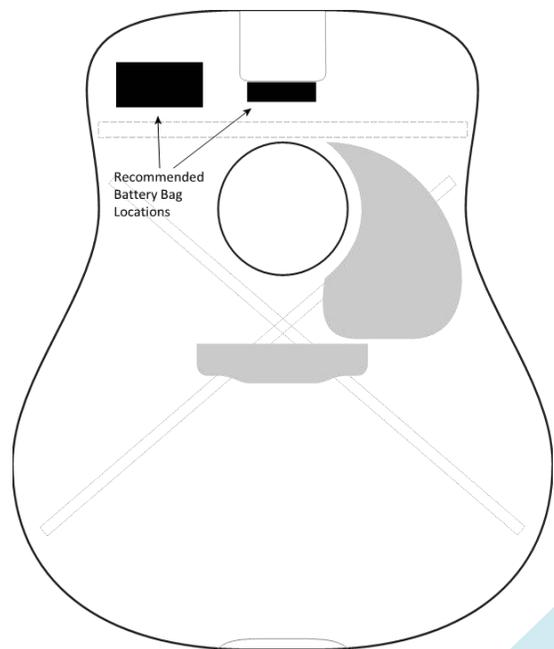
**Note:** *For the strongest bond we recommend a water-based primer/sealer be applied to the bare wood inside the soundhole. A light film of yellow wood glue spread by fingertip works well for this application. Let the primer/sealer dry before continuing.*

Peel back the release film on the bottom of the mic module and fasten the preamp to the underside of the soundhole. Locate the module as shown in the diagram. Apply even steady pressure to the module for 30-45 seconds to set the adhesive. The adhesive achieves maximum hold after 24 hours.

**Note:** *The mic module may be adjusted to hold the mic capsule in multiple angled positions. Set the mic angle to achieve the desired mic response for your guitar. (See User Guide)*

### **Battery Bag Installation**

Install the battery bag in your desired location inside the guitar. The two most prominent locations for this are the neck block or on the back of the guitar in the shoulder area.



Clean the area where you will mount the bag with an alcohol wipe or cotton swab moistened with rubbing alcohol. Let dry.

### **Battery Bag Installation continued...**

**Note:** It is important to make sure the area is clean and free of dust or any foreign matter that will compromise the adhesive.

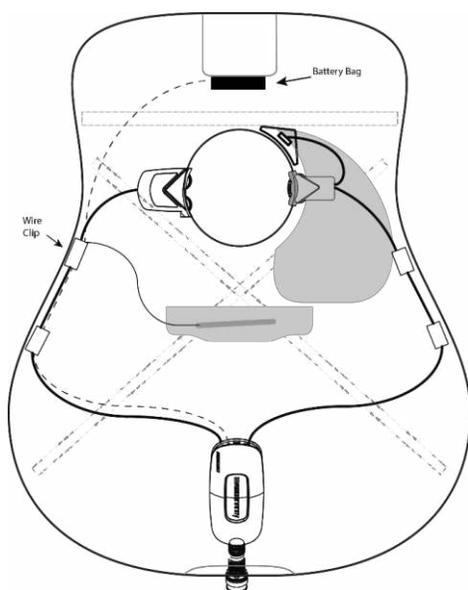
Separate the battery bag and Hook and Loop patch. Peel off the plastic film from the hook and loop patch and place it in the chosen location. To set the adhesive, burnish the entire area of the patch, especially the edges.

Connect a 9V battery to the battery cable and tuck it into the bag. Press the bag firmly onto the hook and loop patch inside the instrument. The adhesive under the patch requires 24 hours to achieve a full bond.

## **Cable Management**

Secure the wires inside the instrument with the supplied adhesive-backed clips. Clean the bare wood surface where you will fasten the clips. Use an alcohol wipe or a cotton swab moistened with rubbing alcohol.

*Suggested wire clip placement:*

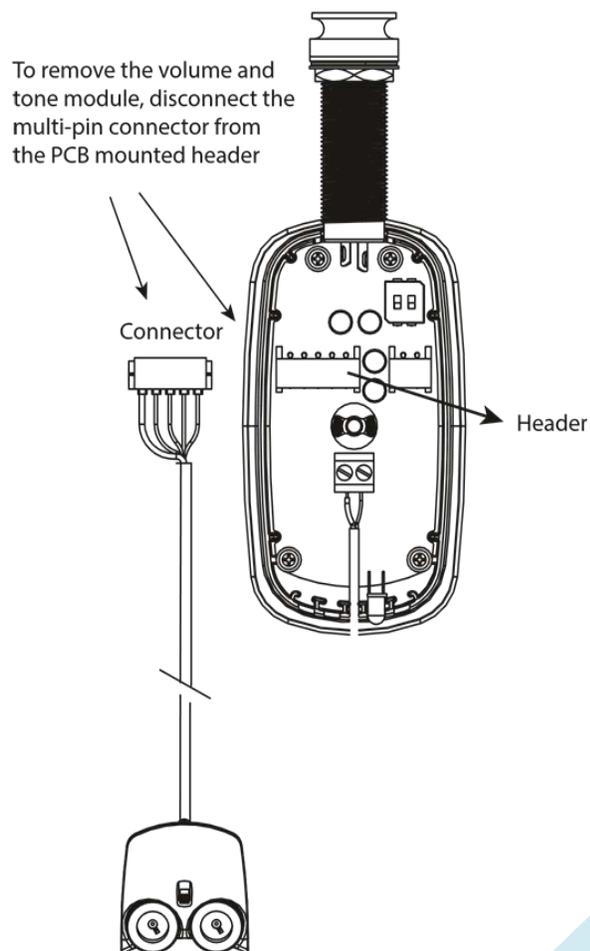


## **Installation Options**

### **Installation without control module**

Under normal installations, the Volume and Tone control module is installed in the soundhole. Optionally, the Infinity VT preamp may be installed without these controls. **The Volume and Tone module cannot be removed from the Infinity Mic Blend.**

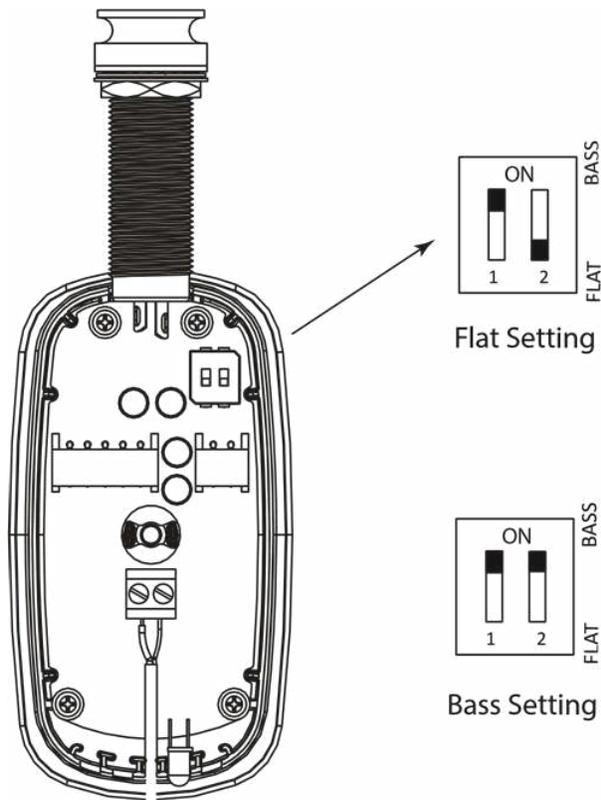
*Note:* Installing the preamp without the control module will also eliminate the module mounted voicing switch. Voicing may still be adjusted using the switch mounted on the main preamp PCB.



### Installation Options continued...

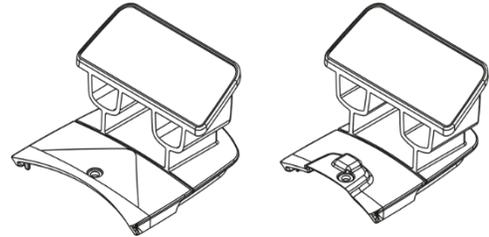
Once the control module is removed you must manually set the preamp to ON. This allows the preamp to operate properly without the control module in place. Set the switch marked with a "1" to the "ON" position.

At this time, you must also choose to set the preamp to either the Flat or Bass Boost voicing. Use the switch marked with a "2" to select the desired voicing. You can now replace the preamp cover and install the preamp in the guitar.

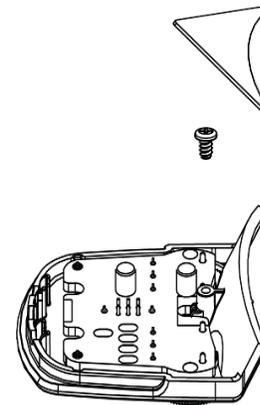


### Classical Style Control Modules

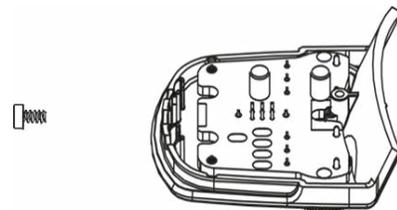
For nylon string guitars, or steel string guitars with unique bracing patterns, remove the top cover of the Volume and Tone module (and the Blend module if installing the Mic Blend) and replace them with the alternate supplied classical covers.



To convert the steel string mounts to classical mounts, remove the adhesive on the cover to expose the small Philips head screw. Remove and place the screw aside as you will need it to attach the classical cover.



On the back end of the module, remove the 1.5mm hex screw and place it aside as you will need this screw to attach the classical cover.



Remove the steel string cover(s) and replace it with the classical cover(s) using the original Philips and 1.5mm screws. After both screws are in place, the control module(s) are ready to install into the guitar. Return to **Control Module Installation** on page 4