

## 1. PACKAGE CONTENTS

One (1) Radius transducer  
Three (3) Clear adhesive pads – non-destructive  
Two (2) Permanent VHB adhesive pads  
One (1) Mounting putty  
One (1) Output jack  
One (1) External mounting hardware for jack  
One (1) Manual  
One (1) Warranty card  
Two (2) Self stick wire hold down clips for internal installations

## 2. OVERVIEW AND CAUTIONS

The “Radius” is a revolutionary new soundboard transducer, capable of reproducing the true acoustic tone and characteristics of your instrument. It has been designed/tuned for use on mandolins but can also be utilized on violins or other small framed instruments within the same frequency range. It installs simply and non-destructively to the top of your mandolin with putty or a peel and stick adhesive. This adhesive will hold firmly to the instrument while remaining pliable and easily removable.

**Caution:** For more delicate finishes like violin or if you are at all concerned about finish safety we have provided a special putty to use in place of the adhesive pad.

## 3. QUICK START

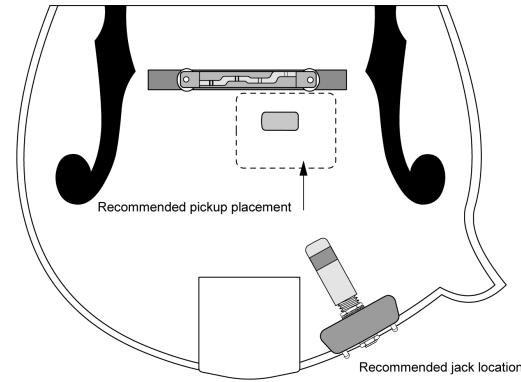
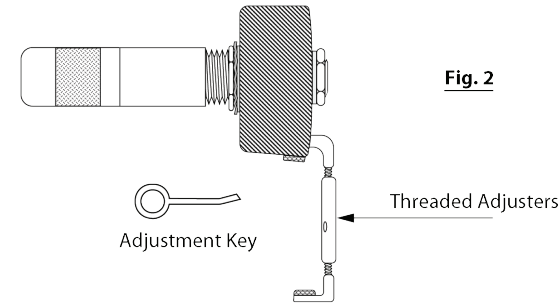


Fig. 1

- Attach removable jack/clamp to the side of the instrument following the instructions in 4.1.
- Put a dab of putty on the underside of the Radius and smooch the pickup onto the instrument top behind the treble side of the bridge; (see fig. 1 for recommend placement).
- Plug in and go.
- Reposition the Radius around on the top until you've found the sweet spot.
- If you wish to make the installation permanent follow the instructions below.

## 4. INSTALLATION

First choose where you will install the jack. We offer two options: 1) Non-permanently mounted on the side of the instrument using the pre-soldered clamp/jack or, 2) Permanent tailpiece installation. The pickup comes pre-soldered to the clamp/jack so that you may quickly and easily install the pickup for immediate results. The wire is longer than necessary to allow for alternate installations. You can choose to either tuck the excess wire under the tailpiece or cut it to the preferred length and re-solder it.



**4.1 Non-permanent external clamp/jack installation:** Open the jaws of the clamp until it fits comfortably over the side of the instrument by turning the threaded adjusters counter clockwise (See fig. 2). Set the jack/clamp in place with the protective cork pads completely covering the

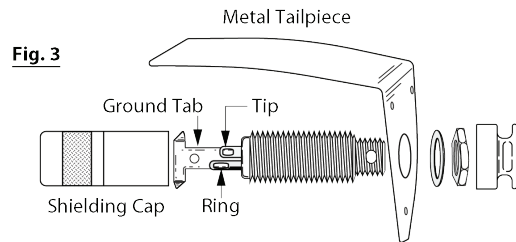
upper and lower edges of the instrument. Using the enclosed key gradually tighten the adjusters, alternating between the left and right side until the clamp is securely fastened (See fig. 1 for recommend jack placement). Be careful not to scratch the instruments finish with the key.

**4.2 Pickup Placement:** The pickup may be installed one of three ways: On the top with mounting putty, on the top with non-destructive double stick adhesive, or internally with semi-permanent VHB adhesive.

- First, find the sweet spot. With freshly cleaned fingers, tear off a dab of the putty (included), and spread it on the entire bottom surface of the pickup. The Radius is rather lenient for placement, but we recommend you begin behind the bridge on the treble side of the top (See fig. 1). Make sure to thoroughly clean all dust, oil, and fingerprints off of the top of the instrument prior to installing the pickup. Set the pickup onto the top of the instrument in the recommended area and apply moderate pressure twisting it back and fourth until it feels secure. Now plug the pickup in to a high quality acoustic amplifier or PA and listen. Experiment with placement until you find the best location/sweet spot. Once you have chosen a location you may replace the putty with the clear double stick adhesive (included) for a more secure installation, or if you like you can keep the putty as the final install. *Note: The longevity of the*

putty's holding ability is unknown. At some point you might need to replace it with some fresh putty, so make sure to keep some on hand in case.

- The pickup can be installed on the inside surface of the instrument. We have included special VHB adhesive for this purpose. If you choose this option, make sure the surface where you install the pickup is clean of all foreign matter. Also we strongly suggest that you first find the sweet spot for the installation using the putty on the top of the instrument before adhering it inside.



**4.3 Permanent tailpiece jack installation for standard or common style mandolin tailpieces:** First remove the jack from the clamping hardware and de-solder the pickup. Also remove the shielding cap, flat and star washers, and nut from the large threaded section of the jack. You will only need the single flat washer and nut from the small end of the jack for this option. *Note: there is a 1 meg ohm resistor*

*soldered to the jack between the tip and ground lugs – it is important for the performance of the pickup to leave the resistor soldered in place.*

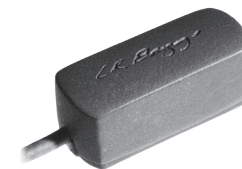
- Remove the strap pin and the three mounting screws holding the metal tailpiece in place. Remove the tailpiece.
- Drill a 1/2" hole in the tail block, using the strap-pin hole as a pilot hole.
- Drill or ream out the strap-pin hole in the metal tailpiece to 3/8" for the small end of the jack to slip through.
- Attach the jack to the tailpiece as follows: Remove the nut and washer from the end of the jack, slip the end through the hole in the tailpiece, then put the washer and nut back on and tighten the nut to secure it to the tailpiece. Screw on the strap ring (See fig 3).
- Feed the pickup wire through the F-hole and fish it out of the hole in the tailblock with a makeshift hook. You should have about 4 inches of wire to work with sticking out of the tailpiece. Make sure you leave the wire long enough to be able to move it around on the top of the instrument to locate the sweet spot after the jack has been installed.
- Before you solder, slide the shielding cap over the wire, back side first. If you do not want to use the shielding cap you can shield the connection with

copper shielding tape (if you choose this option be sure to insulate the hot lead before applying the shielding tape. Also, for the shielding tape to be effective solder a small section of it to a portion of the ground lug on the jack).

- Solder the inner lead wire to the tip lug of the jack (See fig. 3).
- Solder the braided wire to the ground tab of the jack (See fig. 3).
- Shield the connection now by either screwing on the shielding cap or applying the copper shielding tape.
- Slide the entire assembly into the hole in the tailblock, secure the tailpiece with the three mounting screws, and you're done.

## 5. PERFORMANCE RECOMMENDATIONS

The Radius is a high impedance transducer. Although it has enough output to drive most amplifiers, or PA line inputs, for best results we recommend running it through a high quality pre/amp with a minimum input impedance of 2.2 meg. Ohm. The Radius is reasonably free from feedback in common environments but any body sensitive transducer can feed back at high enough SPL levels. If you are experiencing feedback we recommend either the Para Acoustic DI or Feedback Master.



# RADIUS™

## INSTALLATION MANUAL & USERS GUIDE

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