



PRODUCT MANUAL

MANDOLIN TWIN INTERNAL

Thank you for choosing the Mandolin Twin Internal!

We strongly recommend that this pickup system is professionally installed by a luthier or mandolin technician. Special tools are not provided, but are needed to safely enlarge the endpin hole and for installation of the endpin jack. This manual does not provide the information about all the necessary tools and/or how they should be used. Please do not install this system if you do not feel confident with every aspect of installing it.

Soldering might be necessary if the cables need to be shortened, although in most cases the system should fit with the provided cable length. This manual does not provide instructions on wire work/soldering.

INSTALLATION

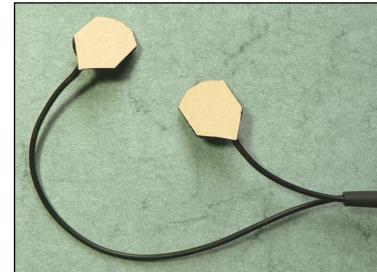
1. The picture at right shows the desired locations of the two transducers inside the mandolin. In some models the two braces will run differently than shown here.

If a brace does not allow you to place the pickup next to the exact center (the widest part) of the F hole, just move the pickup up or down a bit until you find a spot that fits the transducer. However, move it a little as possible from the position shown.



2. Drill the endpin hole. The diameter should be 12mm (or a 1/32" less than 1/2"), but 1/2" works okay.

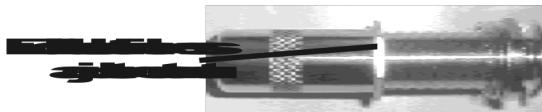
3. Apply double stick tape to the golden side of the transducers, it is a very thin film:



We recommend applying **two layers of the double stick tape**. After the first layer is applied as shown, peel off the brown protective tape. Repeat the procedure. This helps to reduce the sensitivity towards unwanted mechanical transmissions and guarantees the most secure adhesion.

4. Preparation for installation of the endpin jack:

- a. Unscrew the endpin jack's strap button.
- b. Take off one nut and one washer.
- c. Find out the thickness of your end block and set the inner nut accordingly. If the end block is thick enough, you may screw the screw cap against the inner nut. If not, screw the cap in as far as it will go to secure it and set the nut forward to the desired position.



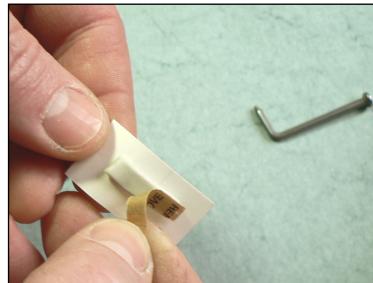
- d. Stick a suitable thin feeder wire from the outside into the endpin hole and fish it out of an F-hole (or sound hole).
- e. Loop this feeder wire through the 2 holes in front of the jack.
- f. Drop the jack and the pickups into the mandolin and pull the jack out through the endpin hole by the feeder wire. Test the setting depth of the inner nut. This may require some trial and error.
- g. Important: Make sure that the strap knob screws in ALL THE WAY over the outer threaded part of the jack, so that a tiny portion of the thread is exposed when the strap-knob is tightened. If you don't do this, you might experience sound cutting in and out because the plug does not fully insert.
- h. Release the endpin-jack into the mandolin for now in order to complete the installation of the pickups. Let the feeder wire end hang out of the endpin hole.



5. Fish the transducers out of the F-holes (sound hole) with tweezers or needle-nose pliers.



6. Locate the putty piece and form a round ball from it.



7. Stick the putty over the bent nail (your installation tool) onto the labeled-black side of the pickup. Make sure to hold the pickup so the cable leads towards the bottom of the mandolin once the pickup is attached to the soundboard. The putty will temporarily hold the pickup to the bent nail.

Test if the brace inside the mandolin allows free access to the pickup's desired location. By holding on to the nail you can carefully move the pickup around inside the mandolin and test the fit. Aim for a spot next to the widest part of the F hole, closest to the bridge.

Once you've established the desired spot make sure the putty still securely adheres to the pickup. It can be re-shaped and re-positioned if needed.



8. Remove the brown protective paper from the double stick tape on the pickup and bring the pickup into position.



9. Use upward pressure on the installation tool to firmly press the pickup to the soundboard.



10. Carefully remove the installation tool. It should come off with the putty on it. If part of the putty stuck to the pickup, you can try to remove it with your pinky finger but it does not affect performance if you leave it on the pickup.

Once you removed the tool, remove the putty from it and save the putty to install the other pickup.

Use the installation tool (without putty) to apply more upward pressure to the pickup in order to ensure secure adhesion.



11. Now the first pickup is properly installed. Fish the treble pickup out of the treble F-hole and repeat the same procedure on the treble side F hole transducer.
12. Pull the endpin-jack out of the endpin hole by the feeder wire.
13. Attach outside washer and nut and tighten the endpin jack from the outside.
14. Attach the strap button.
15. Test and make sure that the cables inside the mandolin are not making mechanical noise. If they do, they need to be shortened.

ADDITIONAL TIP FOR INSTALLING THE MANDOLIN TWIN INTERNAL:

After the two layers of double-sided tape have been applied to the pickups – and before they are fully installed –we recommend applying a drop of superglue gel to the center of the tape on each pickup. The tape is still necessary for the tone quality, but the superglue ensures a secure and permanent bond to the slightly arched surface of the mandolin top.

When using superglue, you must hold each pickup in place for about two minutes. The glue needs time to ensure a proper bond. We also recommend letting each pickup rest for another 10 minutes before pulling off the installation tools, to allow the glue to properly cure.

Superglue is not included. You can use any brand of superglue gel (cyanoacrylate). Please ensure that it is GEL. Knead the glue before using to ensure even consistency, test the glue and let it cure for at least 30 minutes to ensure it creates a proper bond.

REMOVING PICKUPS:

If you need to remove this pickup after installation, please **do not use any kind of chemical or solvent on the pickup!** This includes products like acetone, Goo-Gone, super glue remover, rubbing alcohol, WD-40, or similar. **Using any kind of solvent will de-laminate and destroy the pickup.**

We recommend the following procedure for removing the pickup(s):

- Slide a razor blade or slim knife under the pickup and carefully lift it off.
- Rub off any remaining adhesive on the pickup with your thumb, or with fine sandpaper.