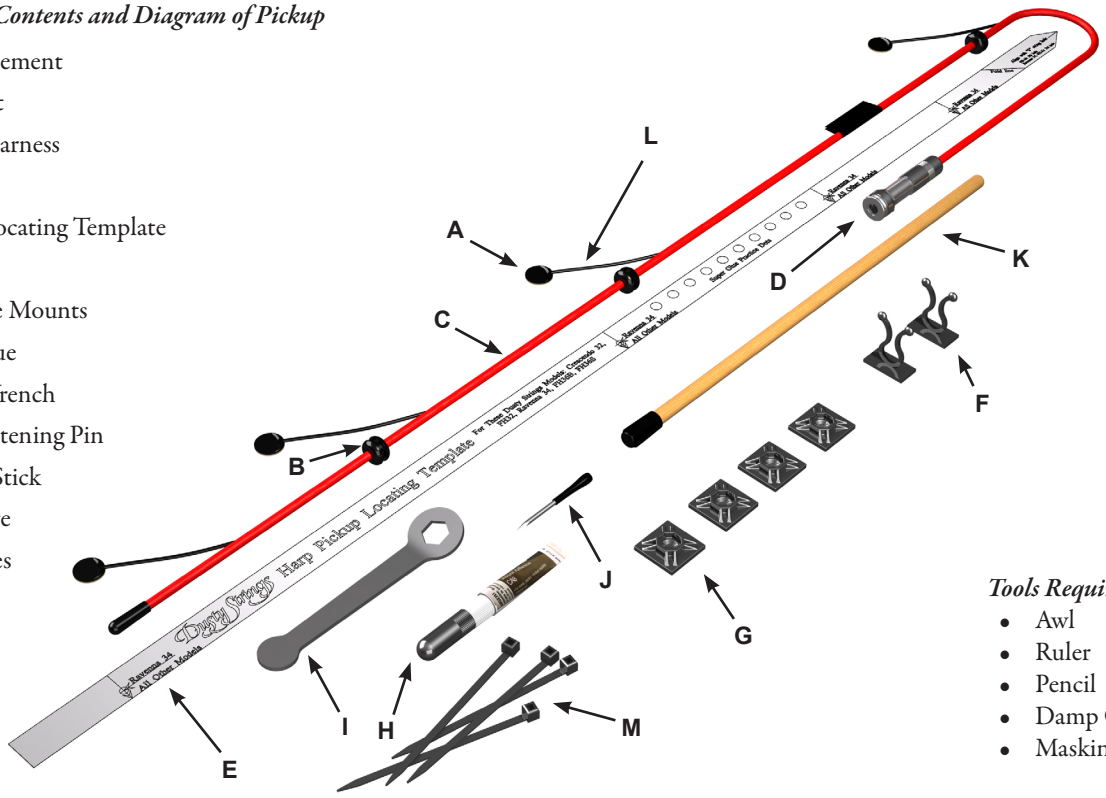
P25 Dusty Harp Pickup

for the Serrana 34

Installation Kit Contents and Diagram of Pickup

A. Pickup Element
B. Grommet
C. Pickup Harness
D. Jack
E. Pickup Locating Template
F. Clips
G. Cable Tie Mounts
H. Super Glue
I. 12mm Wrench
J. Jack-Tightening Pin
K. Pressure Stick
L. Lead Wire
M. Cable Ties



Tools Required:

- Awl
- Ruler
- Pencil
- Damp Cloth
- Masking Tape

Read This Before You Start!

Thank you for choosing the Dusty Harp Pickup! Before you begin, please read the instructions all the way through and pay special attention to the principles outlined below. This will ensure a smooth installation process and optimal pickup performance.

- Anything that is not securely attached can create a buzz, and any hard surface that is lightly touching another hard surface can cause a rattle.
- Make sure the harness clips and cable tie mounts are not touching any part of the harp except where they are stuck on. Don't put them close enough to buzz against the soundboard.
- Make sure the lead wires are not resting on the soundboard.
- When installing the jack, make sure all the internal and external nuts are snug.
- Clean the surface of the harp at every adhesive attachment point, even if it doesn't look dirty. A little bit of dust can interfere with the adhesive bond, resulting in loose components later on.
- We don't recommend using double-stick tape or poster putty to attach the pickup elements. Not only are they likely to come loose over time, but these materials will also weaken the signal, resulting in less-than-optimal tone and volume. The super glue included in the kit will provide the best sound.

Installation Instructions

Step 1: Prepare the Harp

1. Lay your harp so the soundboard is parallel to the floor, with the soundholes facing up *(see figure 1)*. It is important to get the soundboard as level as you can. Prop your harp up securely, with a carpet or other padded surface under the pillar and the base.
2. Use a slightly damp rag to wipe any dust or debris off of the inside of the soundboard and the soundboard lining along the left side of the harp. This will help to ensure the pickup elements and harness clips adhere well.
3. Extend the legs. This will give you more space to work inside the harp.

Figure 1 – Prop up the harp

Step 2: Find and Unplug the Jack Hole

1. The jack hole has been pre-drilled in your Serrana, and all you need to do is locate the hole and remove the plastic plug. The hole is on the left-hand (lever side) faceted face of the harp body, down near the base *(see figure 2)*.

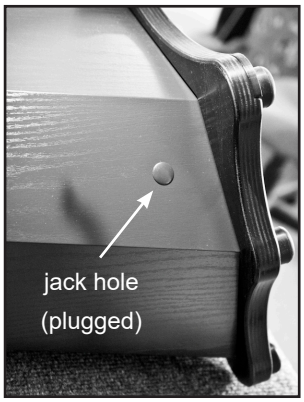


Figure 2 – Jack Hole

Step 3: Mark Pickup Element Locations

1. Find the paper pickup locating template. Poke an awl or a nail through the four circles that have a cross through them *(see figure 3)*.
2. Fold the template on the dotted line near its pointed end. Tape the fold flat.
3. Slide the template into the harp through the bottom soundhole, folded end first.
4. Place the template on the soundboard with the edge against the soundboard lining on the left side of the harp. The lining is the strip of wood that covers the joint between the soundboard and the side of the harp. Position the template so the folded end points directly at the highest F (blue) string *(see figure 4)*. Tape the template in place.
5. Mark a pencil dot on the soundboard through each of the holes you made in the template. These are the element locations.

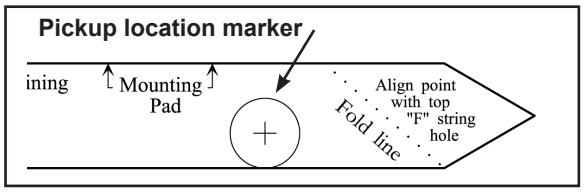


Figure 3 – Template

Step 4: Mark Harness Mount Locations

1. Mark an 'X' on the soundboard lining between the arrows on the template at each "mounting pad" location. These are where you will attach the clips and cable tie mounts.
2. Carefully remove the template from inside the harp.
3. You should now have 4 clearly visible pencil dots on the soundboard and 4 corresponding 'X' marks on the lining.

Figure 4 – Template in position

Step 5: Attach Harness Clip

Note: *You will only use one clip (for the lowest harness mount), but we have included an extra one just in case.*

1. Place a paperclip or thin coin on the soundboard under the lowest 'X' mark to act as a spacer. This is to prevent the clip from touching the soundboard and causing unwanted vibration.
2. Remove the paper backing from the self-adhesive patch on the clip.
3. Use the spacer to position the bottom edge of the clip up off the soundboard *(see figure 5)*.
4. Firmly press the clip into place over the 'X' on the soundboard lining, keeping it as square to the soundboard as possible. The clip may be wider than the lining, and this is okay.
5. Remove the spacer. When you get to step 7, you will be snapping the lowest rubber grommet on the pickup harness into this clip, but don't do that yet.

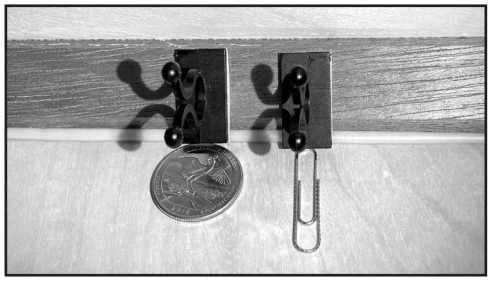


Figure 5 – Example Spacers

Step 6: Attach Cable Tie Mounts

Note: *Unlike with the clip, it is easier to attach the cable tie mounts to the pickup harness before mounting them inside the harp. You will need three of these, and there should be one extra in the kit.*

1. Start by locating the middle two lead wires and their corresponding rubber grommets. For each grommet, attach a cable tie mount by threading a cable tie through the mount and up and around the channel in the grommet. *(See figure 6)* Tighten the cable tie just until snug, and trim the end.
2. Because there is limited clearance when the harp's legs are retracted, the uppermost lead wire does not have a corresponding rubber grommet. Instead, attach the cable tie and mount directly to the harness above the lead wire, making sure not to cinch it too tightly.

Figure 6 – Cable tie mount

Step 7: Attach Pickup Harness

1. Slide the pickup harness up through the bottom sound hole, being careful to avoid dragging or bumping the jack against the harp.
2. Orient the harness so the pickup element lead wires point toward the string rib, away from the side of the harp *(see figure 7)*. You can rotate the grommets if you need to.
3. Slide the grommets and cable tie mounts on the harness so that they align with the clip and with the other X marks, while allowing the pickup elements to line up with the dots on the soundboard.
4. Press the lowest rubber grommet into the clip. The groove in the grommet should "snap" into place in the arms of the clip *(see figure 8)*.
5. Peel off the adhesive backing from the cable tie mountsand stick them onto the soundboard lining over the X marks the same way you did with the clip, using your spacer to make sure they are not touching the soundboard.
6. Test the clearance by retracting the legs to make sure they don't touch the clips and lead wires.

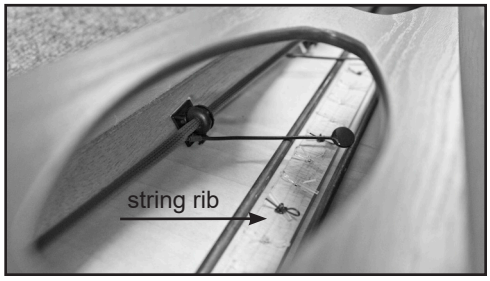


Figure 7 – Lead wire orientation

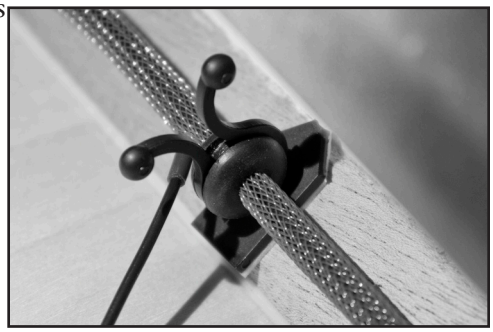


Figure 8 – Grommet snapped into clip

Before Step 8: *Once the elements are glued on, they are very difficult to remove without damaging them. Read this section all the way through before you start, and don't skip the practice steps!*

Step 8A: Practice Manipulating and Placing Elements

1. Hold a pickup element by its lead wire, and guide it into position in the air over the pencil dot, parallel to the soundboard surface.
2. Position the element shiny side down, and practice using the pressure stick to press the element down onto the soundboard. Gently bend the lead wires to form a smooth arc as shown in figure 9.
3. Work with this until you have a feel for manipulating the elements.

Step 8B: Practice Controlling Glue

1. Find the super glue practice dots located on the Pickup Locating Template.
2. Touch the tip of the tube to the paper and squeeze out just enough glue to fill the circle. This should be less than a drop. This is enough glue to bond the entire surface of the pickup to the soundboard without excess that will run and soak into the soundboard. Try to be as neat as possible.
3. When you have a feel for the right amount of glue, go on to the next step.

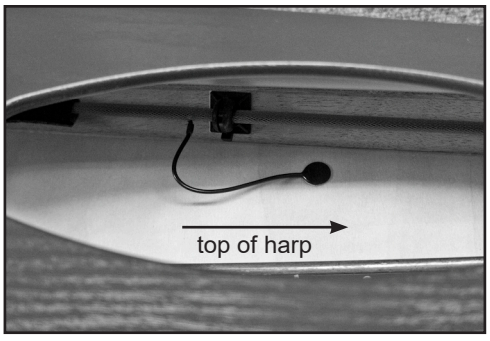


Figure 9 – Lead wire position

Step 8C: Glue Pickup Elements In Place

1. The lead wires should curve upward so that the elements are pointing toward the top of the harp and the wires are not resting on the soundboard where they could cause unwanted vibration *(see figure 9)*. If necessary, rotate the harness so that the wires fully clear the soundboard.

2. Starting with the top pickup, follow this sequence for each element:
   a. Apply the super glue to the pencil dot.
   b. Keeping the pickup element parallel to the soundboard (to ensure an even thickness of glue), press the pickup down firmly and quickly onto the super glue and hold in place with the provided pressure stick *(see figure 10)*.
   c. Hold firmly for a full two minutes, without moving the pickup element. This is important!

Figure 10 – Using the pressure stick

Step 9: Install the Jack

1. Remove the tip nut, the retaining nut, and the outer washer from the jack *(see figure 11a)*. Leave the lock washer, inner washer, and inner nut in place.
2. Reach inside the harp and carefully push the end of the jack up through the jack hole in the back of the harp. Adjust the inner nut so the step to the wider threads sits about $\frac{1}{16}$″ below the outer surface of the harp body *(see figure 11b)*.
3. Put the outer washer on the jack followed by the retaining nut *(see figure 11c)*. Snug down the retaining nut finger-tight. The jack should be firmly held in place. If the jack is loose in the hole, loosen the retaining nut and adjust the inner nut so that the outer washer and retaining nut can fully seat against the surface of the harp.
4. Place the 12mm wrench on the retaining nut. Insert the jack-tightening pin through the cross-drilled hole in the threads of the jack. Hold the jack in position with the pin and use the 12mm wrench to firmly tighten the retaining nut *(see figure 11d)*.
5. Screw on the tip nut as tightly as you can, as there is the potential for an annoying buzz if it is not tightened properly. You can use pliers, but try not to mar the edges. If correctly installed, the end of the threaded portion of the jack should be slightly visible in the chamfer at the end of the tip nut *(see figure 11e)*. Your cable plug needs to be able to make a firm connection with the jack; it should snap distinctly into place when inserted. If the threaded portion of the jack is too far inside the tip nut, the cable plug can be stopped by the tip nut before it makes a good connection with the jack. If this is the case, you will need to remove the tip nut, loosen the retaining nut, adjust the position of the inner nut so that the end of the jack barrel is very slightly farther out, retighten the retaining nut, and re-install the tip nut.

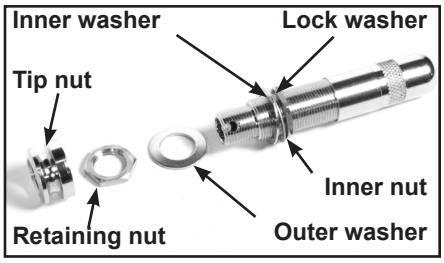


Figure 11a – Jack components

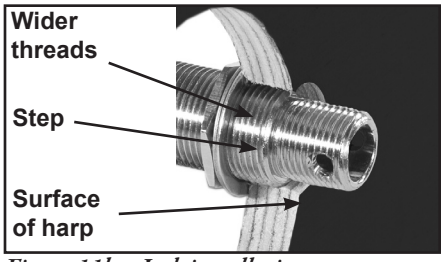


Figure 11b – Jack installation

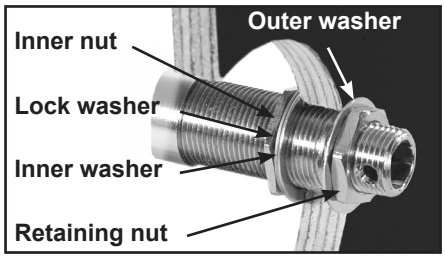


Figure 11c – Jack installation

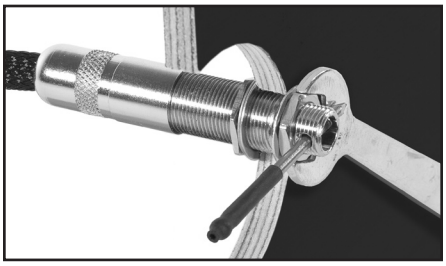


Figure 11d – Tighten the jack

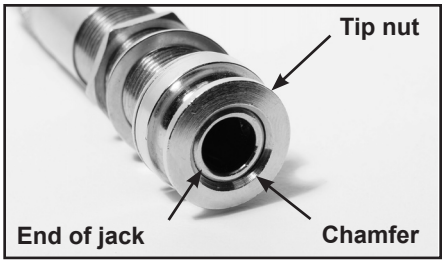


Figure 11e – Optimal alignment

Step 10: Test

Plug the pickup system into an amplifier and lightly tap the backside of the soundboard near each pickup element to make sure each is giving a signal. You can play your harp and use the pickup safely, but avoid moving or jostling your harp for 24 hours. The tone and signal strength will improve over the next day as the super glue cures to full hardness.

Congratulations! Now the installation process is complete. Please call us with any questions.