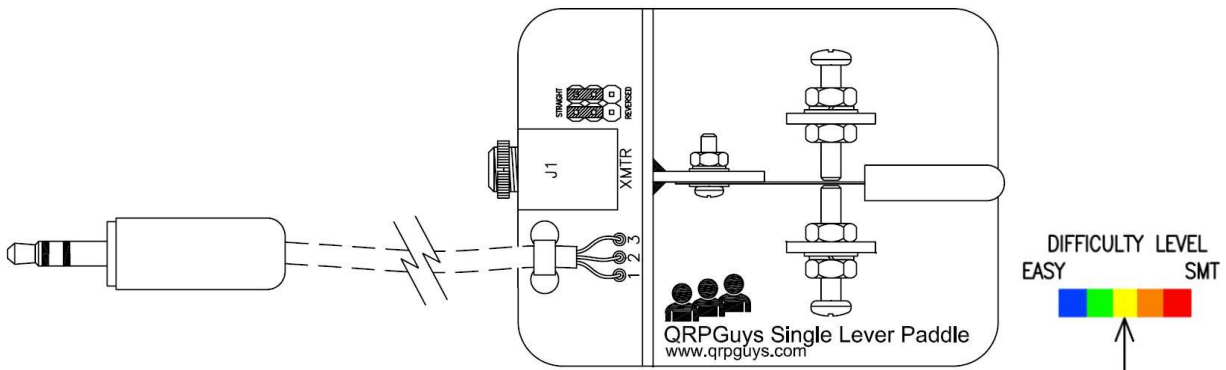




QRPGuys Single Lever Paddle w/Base



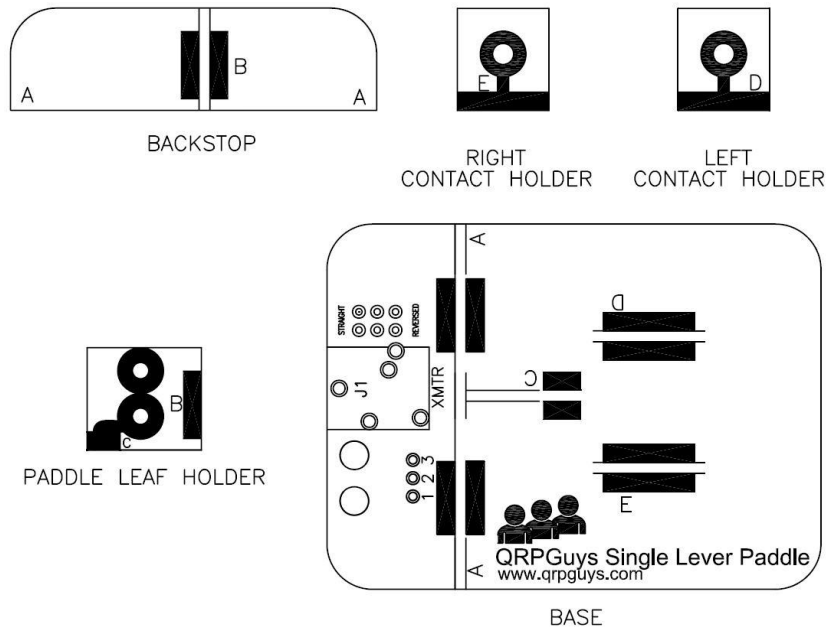
First, familiarize yourself with the parts and check for all the components. If a part is missing, please contact us and we will send one. You must use qrpguys.parts@gmail.com to request a part.

Parts List

- 1 – QRPGuys Iambic Paddle w/Base PCB, 5 pieces
- 1 – 3.5mm stereo audio jack
- 1 – SS paddle leaf
- 2 – 3 position in-line header
- 2 – header jumper (Berg connector)
- 1 – 3.5mm stereo plug
- 2 – 4-40 x 5/8" L SS pan head Phillips screw
- 1 – 4-40 x 1/4" L SS pan head Phillips screw
- 2 – 4-40 SS nut
- 2 – 4-40 brass nut
- 2 - #4 SS flat washer
- 2 - #4 SS lock washer
- 2 – 2-56 x .25" L SS pan head Phillips screw
- 2 – 2-56 SS nut
- 4 - #2 SS flat washer
- 2 - #2 SS lock washer
- 1 - #4 x 1" L Phillips head screw
- 1 - 1/2" x 1" vinyl caplug
- 1 - 1/2" wide x 2" L plastic shim
- 1 – 4" x 1/8" black cable tie
- 4 – Silicone rubber self-adhesive foot, 6mm

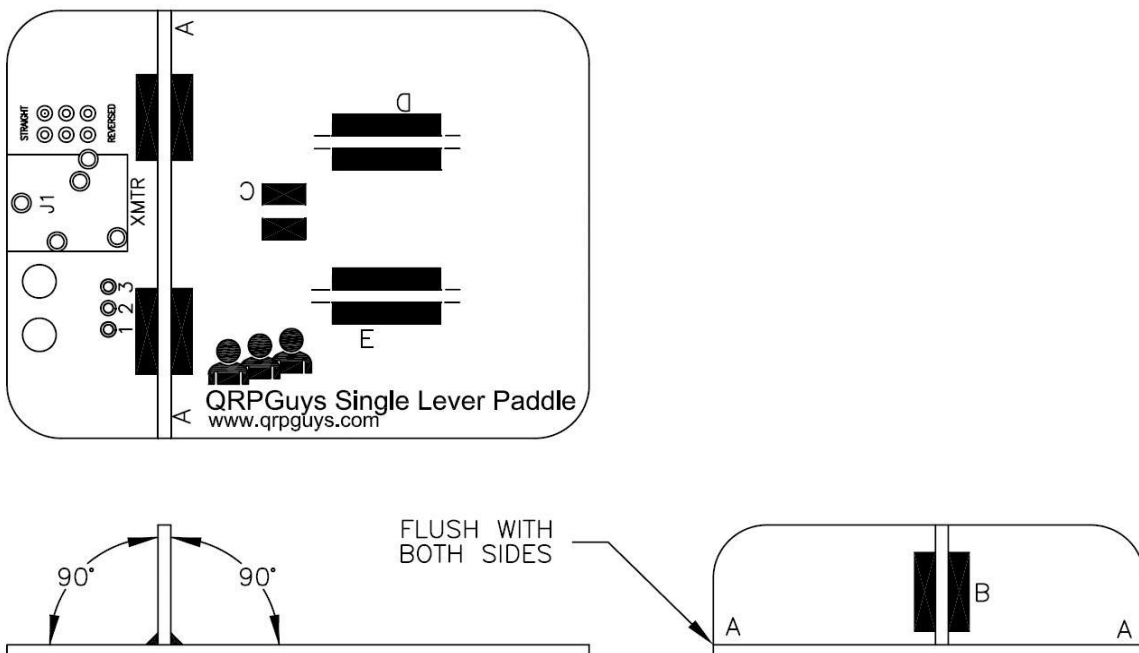
Even if you have done radio kit assembly before, please read through all the instructions before you start. This kit is a little different, in that the mechanical components are the part of the printed circuit board. The instructions give you the scope of the project and an understanding of the techniques we have employed. You will be assembling the kit using five pieces of PCB material, and when assembled, form the electrical connections. There are solder pads, registration marks, and letter coded parts, that match each other. When you tack and solder the components it will make a sturdy mechanical and electrical assembly.

Refer to the figure below for identification of the individual PCB parts.

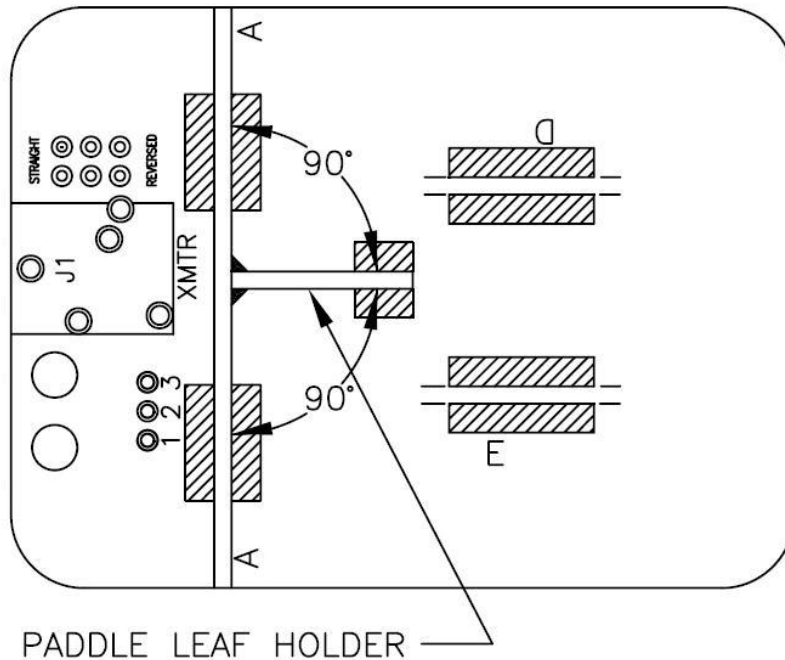


Notice that the pieces are coded with letters that will match up when you have them in the correct alignment. The first two pieces to be joined are the **backstop** and the **base**.

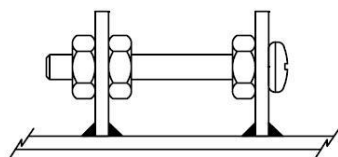
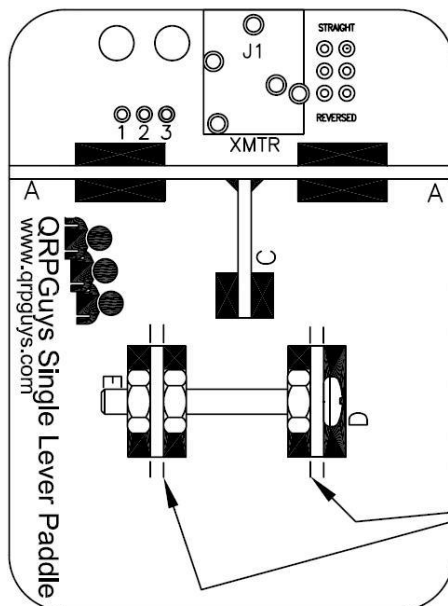
You only slightly tack a point on one intersecting pad and then check to see that it is square to the base, aligned with the registration points, and flush with the sides. **If it is not, do not try the bend it to fix it, you will lift the pad off the surface.** You need to re-heat the tack and straighten it while the heat is applied. Once it is square, tack the opposite side pad. After a small tack is done on all the pads you can go back and touch up all the solder pads, and it will stay square and flush with the edges.



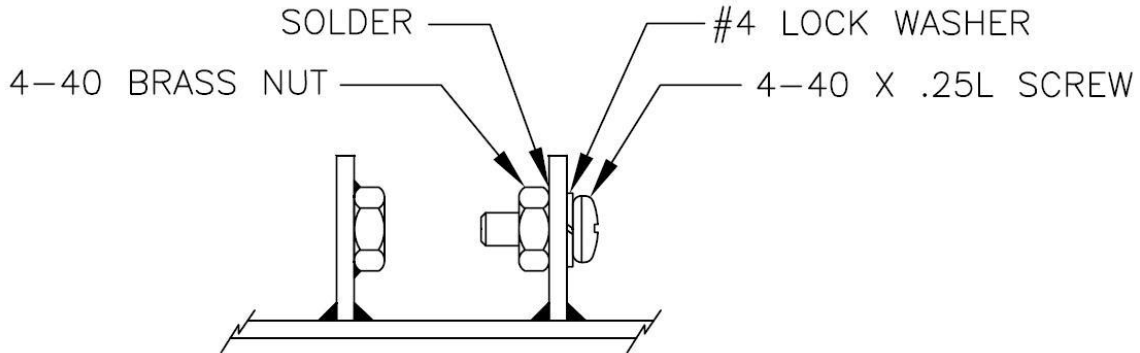
Use the same technique adding the **paddle leaf holder**. Match the registration letters and alignment marks. Lightly tack one pad and check for squareness. Adjust if needed by re-heating the tack. Do this on all the pads. Once you are satisfied with the alignment, go back and finish soldering all of the pads.



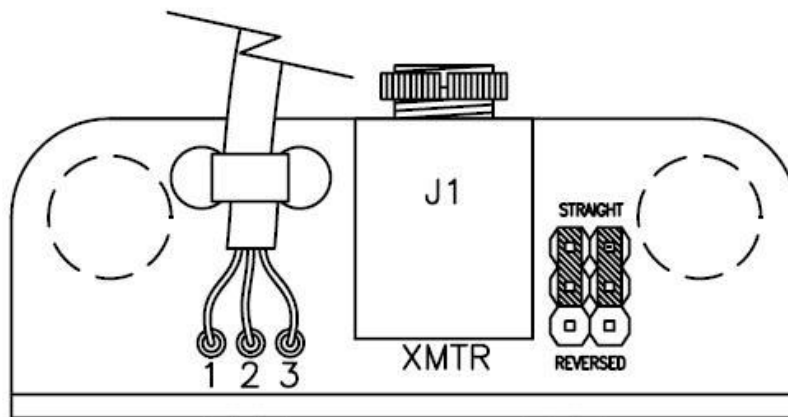
Refer to the figures below. Use the 4-40 x 1" long screw and, adjust the nuts so that the spacing matches the registration lines silkscreened onto the surface of the board. **Do not solder all of one side at once.** Tack both sides of the holders, and alternate back and forth between the two sides adding a little more solder, then, the holders will remain straight when you remove the support screw.



The two brass nuts need to be permanently soldered to the “inside” of both the contact holders. Use the 4-40 x .25L SS screw and #4 lock washer to hold in place, and solder them. The lock washer insures that the nut will be flush with the PCB when it is heated. It is helpful to rub the face of the nut on some scotchbrite or emery paper to clean up the surface contacting the PCB.



This completes soldering the mechanical pieces.



Parts placement figure

- [] Install the two 3 pin headers.
- [] Install J1, the 3.5mm audio jack where indicated.

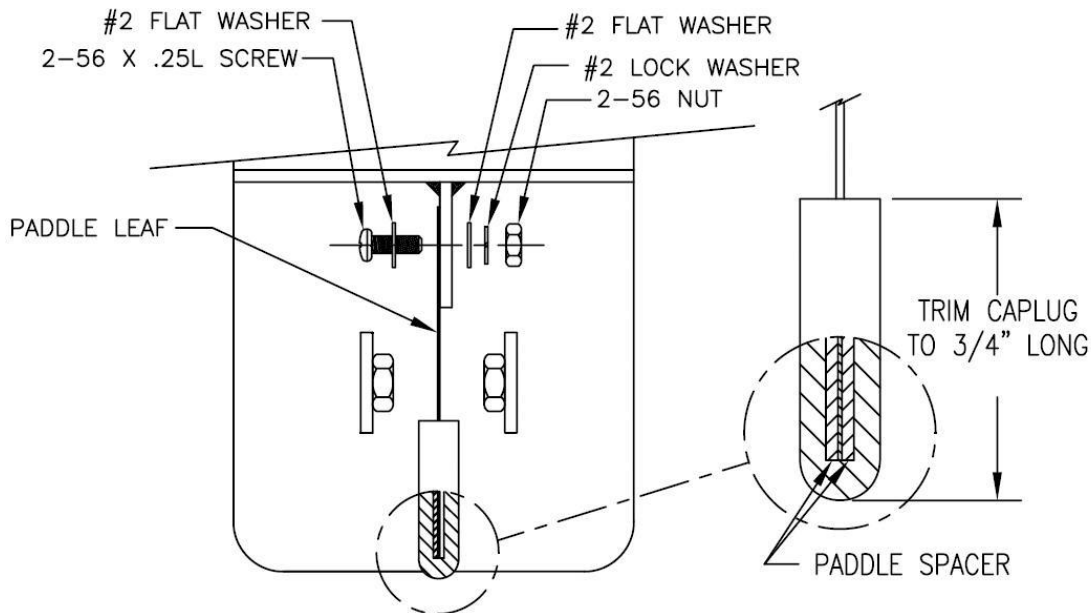
The attached cable for input to your transmitter is *optional*. You can use a male/male 3.5mm stereo jumper, or fabricate a permanently attached cable of your own choosing. We provide one male 3.5mm stereo plug and a small cable tie to attach your cable for that option. You supply your own three conductor cable. Use the ground connection on the plug as the common and connect that color wire to the #2 pad on the PCB. The ring and tip for the other two connections, #1 and #3. The two Berg jumpers on the PCB accommodate either combination for the dit/dah and ring/tip orientation.

This completes the electronic pcb assembly.

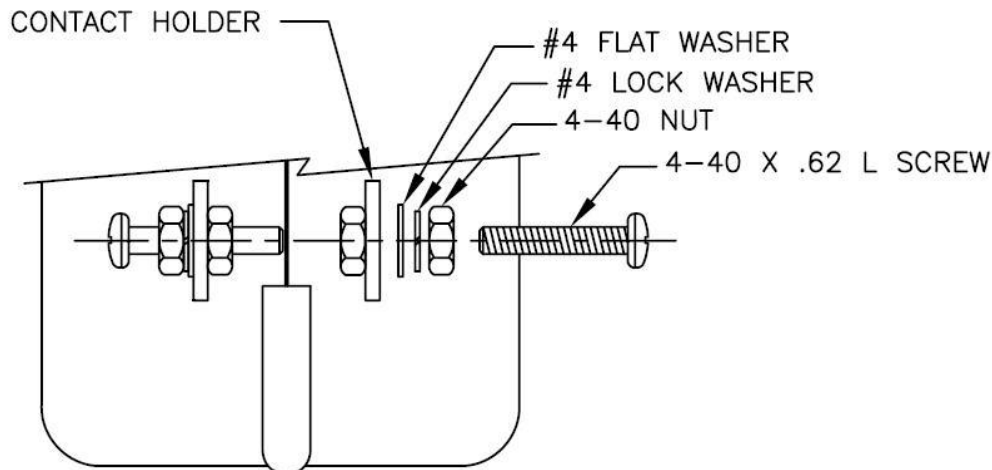
Finishing the mechanical assembly.

Assemble the paddle lever components as shown in the figure below. It's a good idea to assemble the hardware over a cookie sheet. Any hardware is difficult to find if dropped.

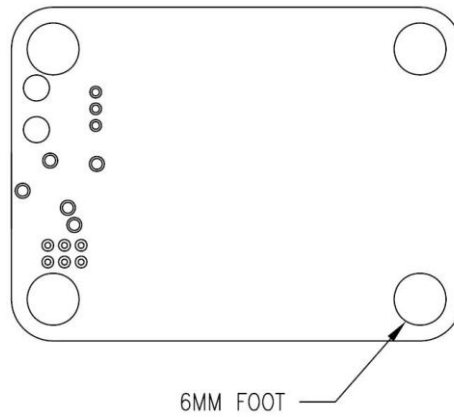
- [] Secure the paddle leaf to the **paddle leaf holder**. If the paddle leaf holder is not perfectly square, the paddle leaf may be off to one side, or on an angle. Simply bend it to be centered between the two contact supports. Center the paddle leaf before installing the contacts. Assemble the hardware in the order shown.
- [] Cut the Caplug lever cover 3/4" long from the closed end. Scissors will work easily.
- [] Cut the piece of the supplied 1/2" wide plastic into two 5/8" long pieces.
- [] Sandwich the paddle lever with the plastic spacers and slide the Caplug over the end of the paddle leaf.



- [] Install the contact screws to the contact holders as shown in the figure below. The contact distance to the paddle leaf can be adjusted from a few thousandths of an inch to whatever you feel comfortable with for sending.

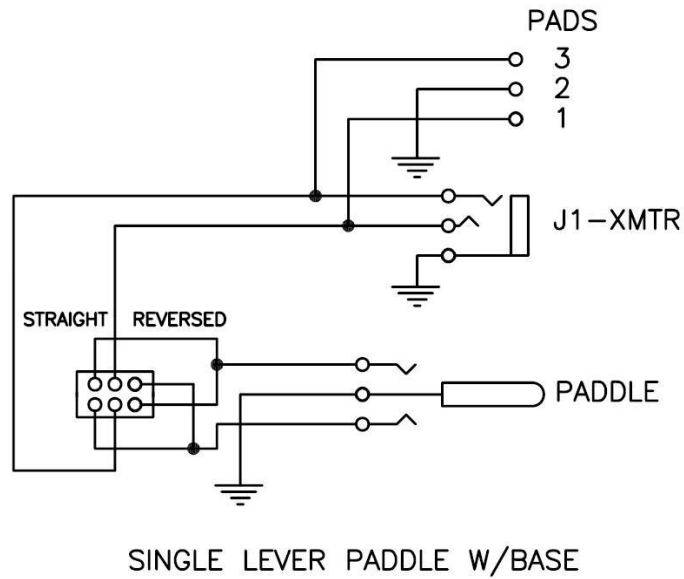


[] Attach the four self adhesive feet to the bottom corners.



This completes the assembly

Schematic:



Notes:
