

LAARK Pocket Power 1x4 DC Junction Box



DISCLAIMER

The LPP (LAARK Pocket Power) DC Junction box is designed to give the user the ability to take one power source, 30 Amps DC Max, and feed it to four devices that require the same power voltage. The LPP does not provide any reverse voltage protection nor does it provide any type of current overload protection. Equipment connected to the LPP should have fused lines to prevent current overload. Anderson Power Pole connectors are used to make the LPP compatible with ARES and MARS equipment. The Lake Area Amateur Radio Klub is not responsible for any loss or damage to equipment that may occur when using the device.

First thing to do is inventory the parts. Here is what you should find in the bag.

Hammond 1551 Project Box	1
#2 Screws	2
LAARK Pocket Power Circuit Board	1
Anderson Power Pole Connector Jacket, Red	5
Anderson Power Pole Connector Jacket, Black	5
Anderson Power Pole Clips	10
AWG #14 gauge wire 1 6" and 1 4" long	2

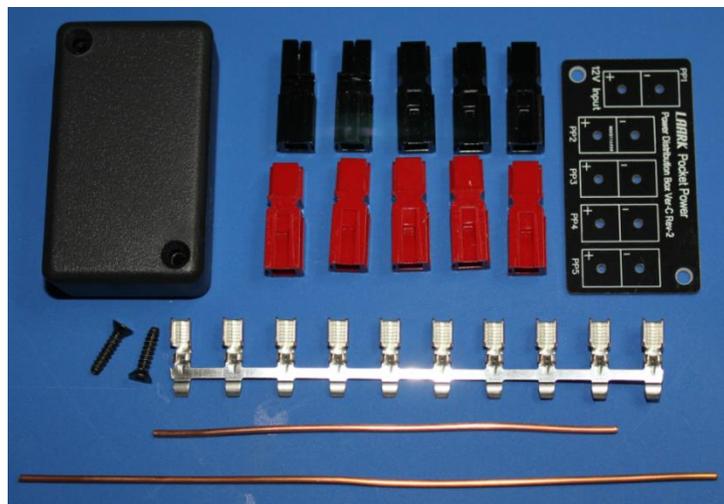


Figure 1

- Cut the short copper wire into 4 1" pieces.
- Cut the long copper wire into 6 1" pieces.
- Take the strip of clips and cut each clip out. Make sure you trim any excess from the sides or you might have trouble inserting the clips into the crimp tool and plastic jackets.
- Option (1) using a crimp tool to attach clip to wire. Use the 30 AMP socket on the crimp tool. If you have trouble inserting the clips make sure you trim the excess from each side.
- Option (2) soldering wire to the clips. If you are not going to crimp the wire but solder instead make sure the wire does not go past the small crimp ears. Use a set of pliers to encircle the wire. Make sure you have a good mechanical connection before soldering.
- Once you have crimped or soldered the wire to the clips don't trim the wire at this time. Wire can be trimmed after the clips have been soldered to the PCB.
- If you are not familiar with how Anderson Power Poles jackets attach to each other refer to the PDF file Anderson Powerpole Assembly Guide.pdf located on the LAARK webpage (www.k5lrk.com).
- Insert the clips into the red and black plastic jackets until you hear a click sound. That insures you have inserted the clip all the way in. You may need to use a pair of pliers to assist inserting the wires.
- Attach the red and black power pole jackets together. Make sure you put the red on the left and black on the right side. Refer to the Anderson Powerpole Assembly Guide when connecting the red and black jackets for proper alignment. Also refer to figure 2 below.
- All components go on the front side of the PCB.



Figure 2

- Make sure the jackets are flush and square with the PCB before soldering. If you have trouble keeping the jackets straight use a rubber band to hold the jackets upright while soldering the wires to the PCB.

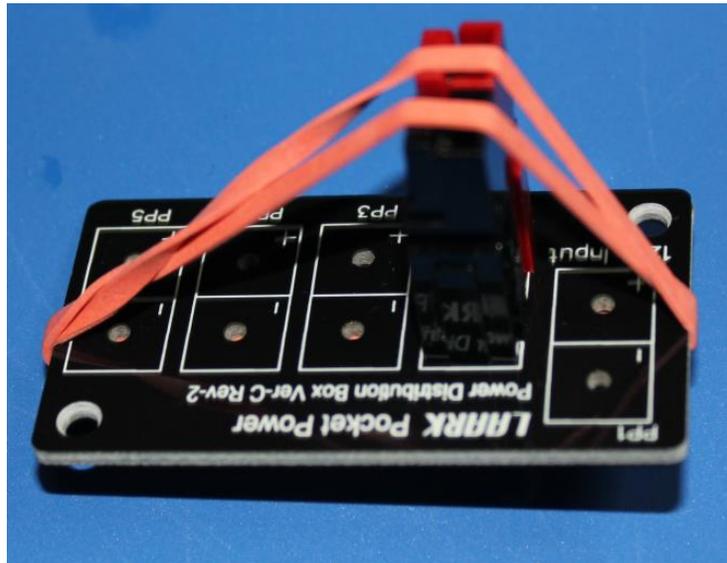


Figure 3

- Once all wires have been soldered to PCB; trim access wire. The solder side should look something like this.

Take a cotton swab and rubbing alcohol and remove all the solder resin.



Figure 4

- Use a VOM to make sure all positive jacks are connected together. Make sure all negative jacks are connected together and also check to make sure the positive and negative jacks are not shorted.
- Remove the top lid from the Hammond Project Box and discard. It is not needed. Use the two #2 screws and attach the PCB to the box.



Figure 5

Note: The holes in the PCB and the holes in the box may be 1mm 2mm off. This will not affect the function of the junction box.