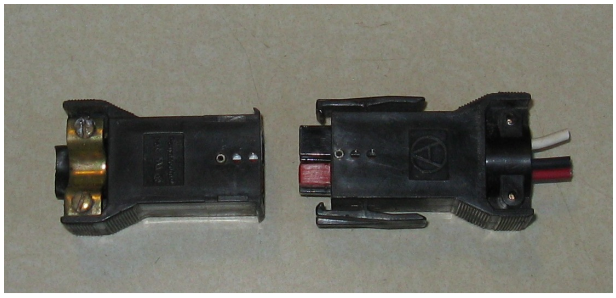
PowerPole® Splitter Assembly

PowerPole plugs are readily available from vendors and frequently show up as salvage items at electronic swap meets. There are two "genders", though they look a lot alike. One version has clips on each side that hook into the bulkhead PowerPole jacks. The other plug is designed to mate to the one with the clips.



They are handy to use as splitters. This allows you to connect two devices to a single PowerPole equipped cable or (better yet) to connect two batteries together in parallel. To connect the batteries; run the lead from each battery to the duplex end of the splitter.

Tools:

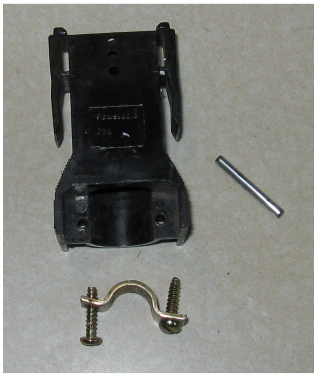
- Soldering gun
- Needle-nosed pliers
- Slip-joint pliers
- Wirecutters
- Fine file
- Wirestrippers
- Screwdriver
- PowerPole crimpers
- Small vise

Supplies:

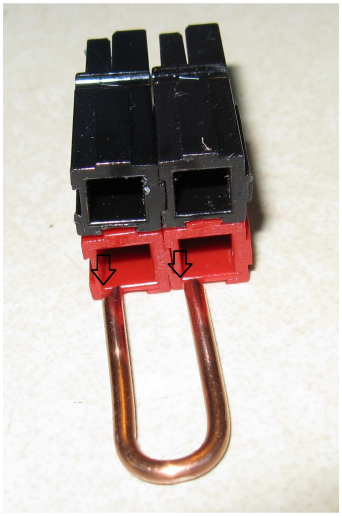
- PowerPole Connectors
- Duplex PowerPole plug
- Red/Black zip wire
- Solder
- Solid 12-gauge copper wire
- PVC electrical tape

Construction Steps:

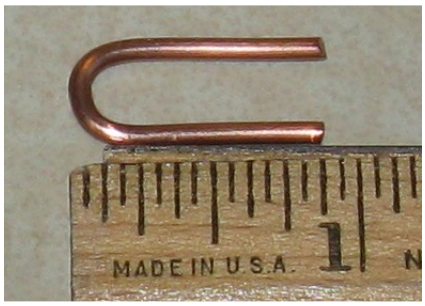
1. Disassemble the plug by pushing the split pin out of the housing and removing the clamp on the back of the connector.



2. Fabricate two U-shaped connectors with legs approximately 1 1/4" long out of bare 12-gauge wire. The spacing of the legs is critical to allow them to fit into the PowerPole housings. Space them by eye, and then use an assembled pair of housings as a gauge. The legs should be the same distance apart as the distance between the edges of the housing - this will space them properly for insertion after the contacts are soldered to the wires. Use a pair of pliers to compress the looped end of the wire until it is the proper size.

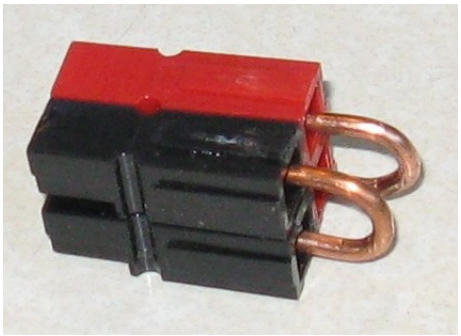


3. Cut the legs of the wire to approximately 7/8". Close tolerances are necessary to prevent shorts.

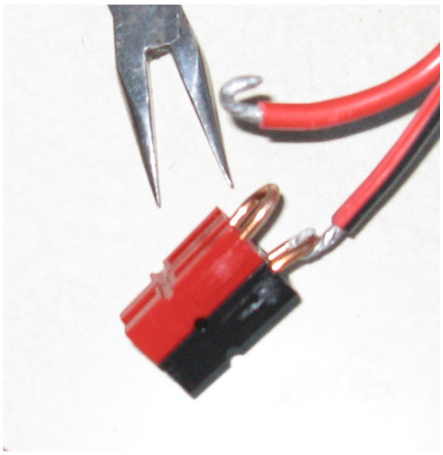


4. Solder the contacts to the wire. Be sure that they are parallel and that the connector tips are even. It helps to tin the wire. The contacts tend to jump off the wire, so secure them at about a 45°angle in a small vise. Once you have a good solder connection, you can use the tip of the soldering iron to tease them into position. After they are soldered, use a razor blade or sharp knife to remove flux from the contact surfaces.

5. Install the contacts in the housing. Clearances should be as tight as possible to keep the wires separated.

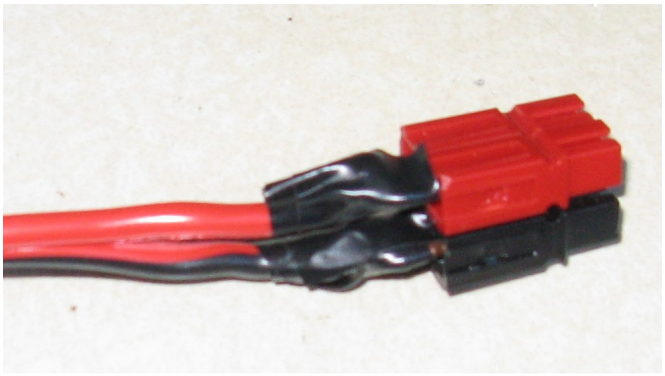


6. Prepare a 12-gauge red/black zip cable by stripping approximately ½" of insulation from each conductor. Twist the ends tightly and tin them. Use needle nosed pliers to twist them into a hook. Place the hook over the U-shaped wires and crimp them tight and then solder them. Inspect the solder joints to make sure they are secure. Use a fine file to clean up the solders so there are no rough edges.

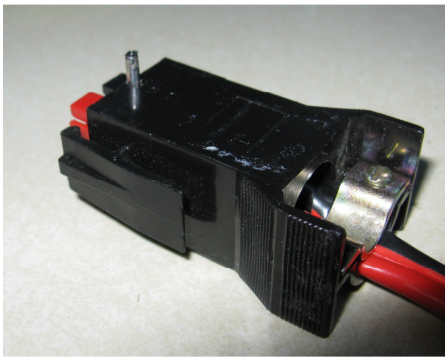


7. Inspect the wires and wiggle them to make sure that they are tight and cannot make contact with each other.

8. Cut 1 1/2" strips of PVC tape and wrap the bare solder joint so they cannot short out.



9. Reassemble the plug housing and insert the pin to secure the connector.



10. Install a PowerPole connector on the other end of the cable. You are done!