

Electrical Diagnosis And Repair, Part 2: soldering techniques

Ok, so you know how to find electrical faults in your cars wiring. Do you know how to fix them? "*Yea, butt connectors*" **sorry, wrong answer!!**

Butt connectors are ok as temporary repairs, but for the best connection, soldered repairs are the way to go.

First, some supplies. A good soldering gun. Radio shack has inexpensive ones. While you are there, pick up some soldering flux, some 60/40 standard rosin core solder, it's thin stuff. And some shrink tubes in assorted sizes. You already should have some wire strippers

To join two pieces of wire together, first strip off approx. 1/4 in. of insulation from both wires.

Next, cut a piece of shrink tube that's the correct size for the wire approx 1 in. long and slide it on one of the wires.

Now put a small amount of flux on each of the striped ends of wire. Put the ends together end-to-end inline. Try to get the wire fibers to mesh in a straight line. You will have to squeeze them together with you fingers to keep them lined up.

Now, heat up the wires with the solder gun until the flux sizzles, then put on the solder. Just enough to get into the wire fibers. Blow on the wires to get it to cool quickly.

After the repair has cooled, slide the shrink tube over the repair. Take a lighter (I use my barbecue lighter) and wave it over and around the shrink tube until it shrinks. Don't get it too hot, it will catch fire.

Now you have a repair that has excellent conductive properties the same as the wire itself, its water tight, protected from corrosion, and will fit nicely into a harness un-noticed.

You can use the same procedures to put connector ends onto wires. Even the crimp type. Just take a utility knife and trim off the plastic part off the terminal.

I've seen enough hacked in cell phones, stereos and alarm systems that have given their owners headaches because the crimp connectors fail to know that the above is the best way to repair wires or install accessories.

Good luck on your repairs!

- Roger Kizer