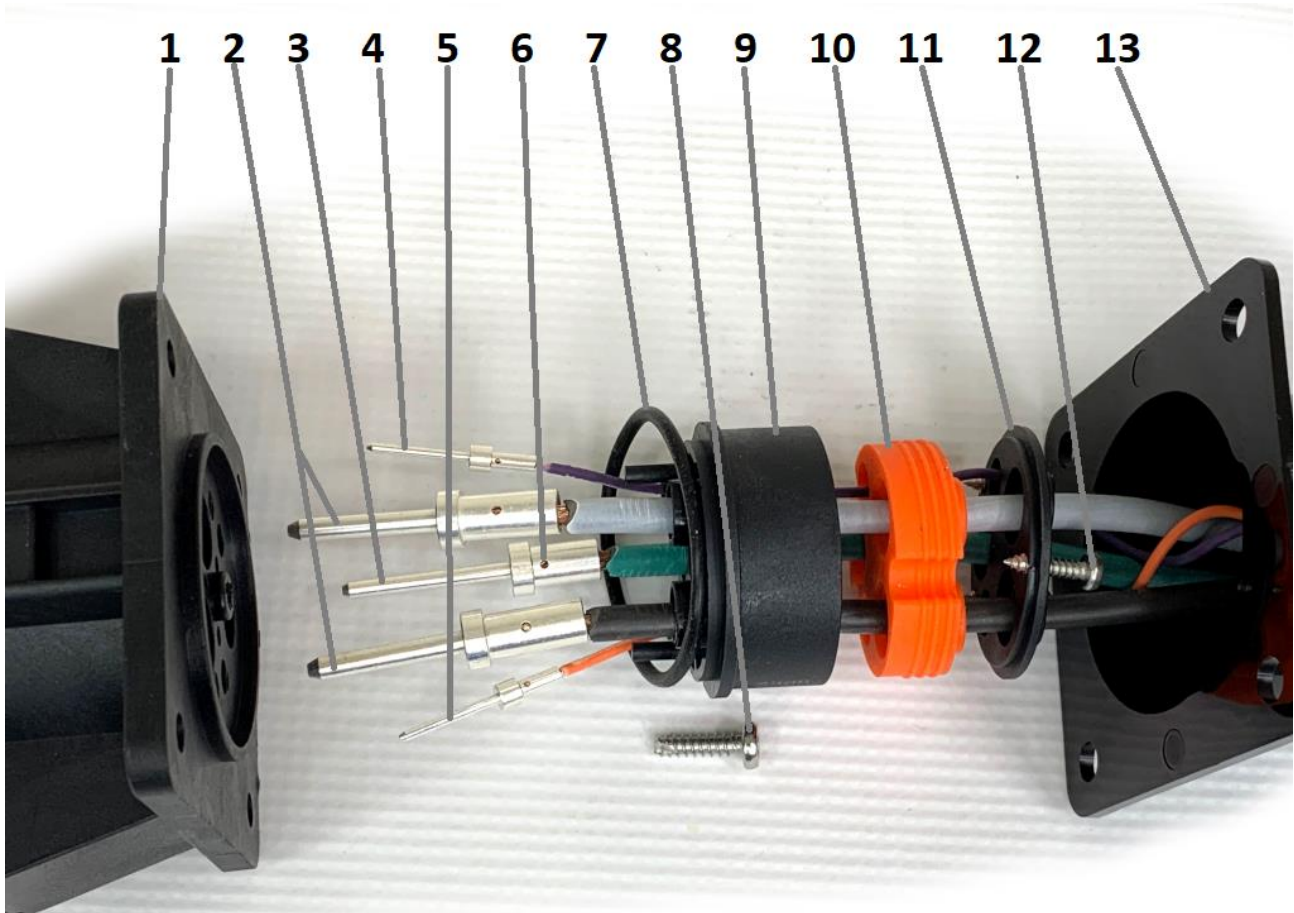


# J1772 Inlet Port Wiring

## Assembly Layout

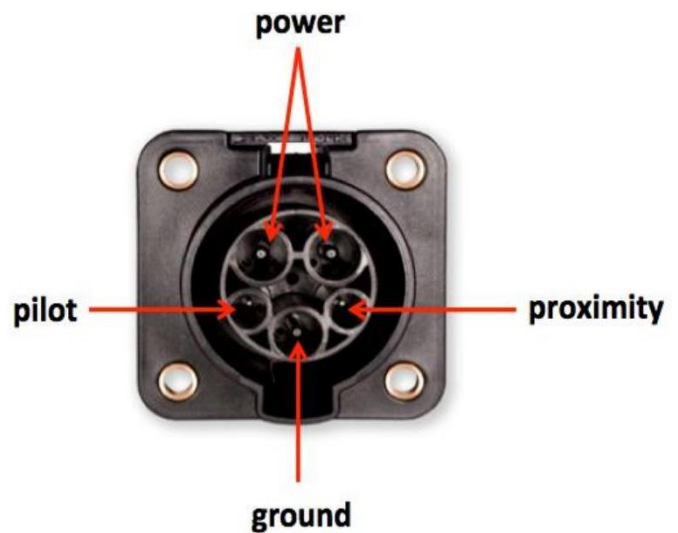
The following assembly layout indicates the proper parts positioning before crimping and soldering the pins. Part definitions are listed below the image.



1)-Inlet Body, 2)-L1&L2 Power Pins, 3)-Ground Pin, 4)-Pilot Pin, 5) Proximity Pin, 6)-Solder Weep Hole, 7)-Retainer Seal, 8)-Retainer Screw, 9)-Pin Retainer, 10)-Wire Seal, 11)-Seal Retainer, 12)-Retainer Screws, 13)-Inlet Cover

## J1772 Inlet Port External View

Cover not shown. Notch below the ground pin aligns the EVSE connector.



## Assembly Procedure

The following parts and tools are required:

- J1772 Inlet Port Assembly
- 3-Wire Power cable – between inlet and charger. Use wire gauge rated for inlet Amps
- 2 wires for Proximity and Pilot connection (22 gauge provided with controller kits)
- Knife for stripping insulation
- Phillips #2 Screwdriver, Torx T10 driver, 3mm Allen wrench
- Wire crimping tool
- 125-watt minimum soldering iron (torch if used carefully) and rosin core solder

The following steps are recommended for correct assembly. Refer to the image above for details.

1. Disassemble J1772 Inlet assembly, noting part position for correct re-assembly.
2. Strip outer insulation from power cable (if used) to 6" from the end.
3. Strip 1/2" insulation from ends of the power and ground wires.
4. Strip 3/8" insulation from ends of the Pilot and Proximity wires.
5. Twist wire ends to prevent fraying.
6. Wire seal, pin and seal retainer directions are all important – see image.
7. Thread the power and ground wires through the inlet cover, seal retainer, seal, and pin retainer.
8. Thread the Proximity and Pilot wires through the same parts. See the inlet port image for correct pin positions.
9. Attach pins to wires one at a time.
  - a. Note the ground pin body is shorter than the two power pins.
  - b. Twist frayed wires so all strands insert into pin body
  - c. Crimp the body enough to hold the wire in place firmly.
  - d. Heat the pin body and apply solder to the wire end until you see it in the weep hole.
  - e. Let the pin cool before attaching the next pin
10. With the retainer seal in place, insert pins into the inlet body.
11. Tighten the retainer screw – the retainer should be flush and tight, with the seal in place.
12. Work the wire seal fully into the pin retainer body.
13. Tighten 3 retainer screws (Torx 10) to position the seal retainer.
14. Verify all connections with an Ohm meter.
15. Install the inlet cover with 4 recessed machine screws, washers and nuts (not shown). These screws are used for mounting to the vehicle structure. 3mm Allen wrench used.
16. Connect wires to the vehicle charging system.
17. The inlet ground wire connects to vehicle chassis ground, directly or via the charger case.
18. See the Charger Troubleshooting Guide on the website at the following address:  
<http://www.thunderstruck-ev.com/images/companies/1/ChargeTroubleshooting.pdf>

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