EVCHARGEKING

TESLA CONNECTOR KIT ASEMBLY INSTRUCTIONS

1 UPON ARRIVAL:

When you get your installation kit, it should look something like this:

The kit consists of everything you need to assemble a fully functional female Type 2 connector for your Tesla with integrated Tesla button to open your chargeport, and disconnect the plug from the car.

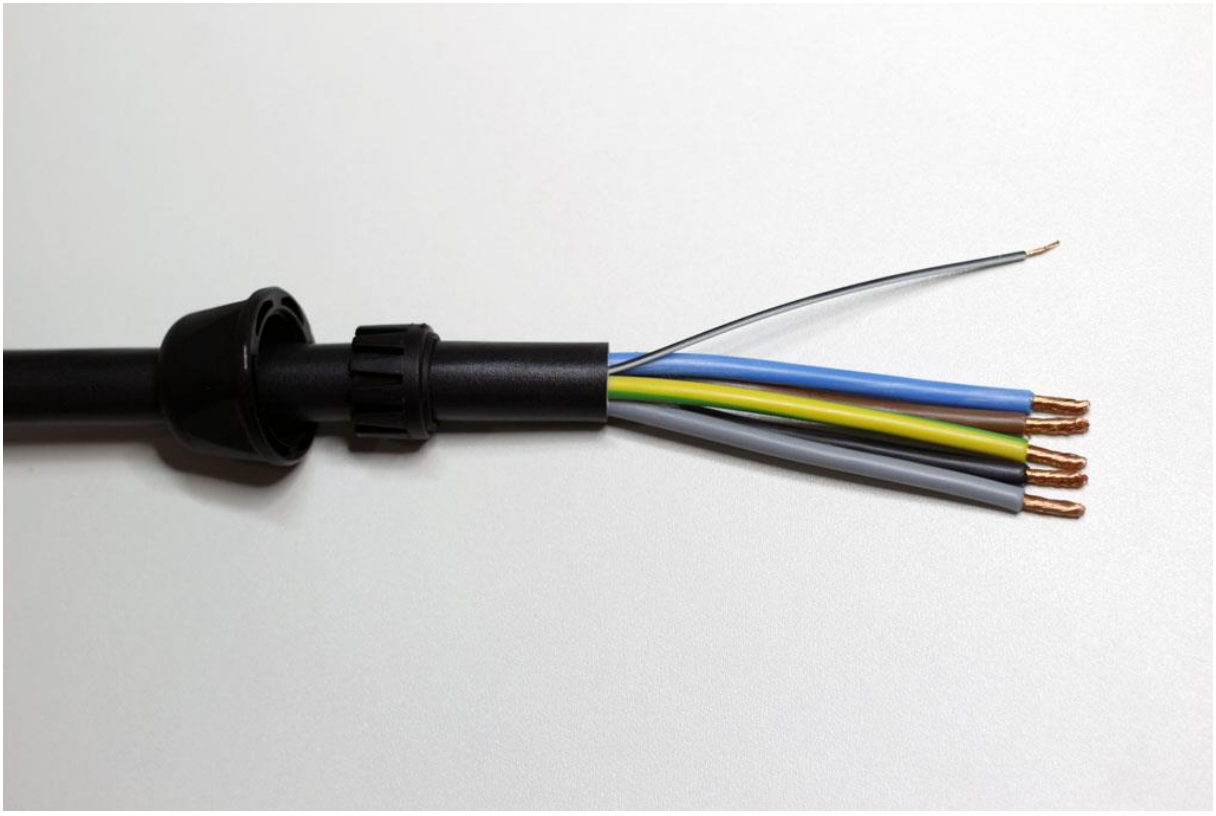
2 STRIP YOUR CABLE

You can use any cable up to 18mm diameter, single or multiphase. This instruction sheet uses a 32A 3-phase cable, but the procedure is the same for 16A or single phase cables.

You don't need to insert any resistance in the wiring, all necessary resistances are on the print. So take care to use the correct installation kit for your cable. It is very dangerous to install a 32A kit on a 16A cable!

16A cables have 2.5 mm² wires, 32A cables preferably have 6 mm² wires. The kits can be used for single or 3-phase cables of the correct amperage, so a 32A kit can be used for a single or 3-phase 32A cable having 6 mm² wires.

FIRST SLIDE THE CABLE GLAND ON THE CABLE!!! Watch the correct position, you cannot correct this once you have connected the wires to the terminals! Strip the cable over a 10cm length, and strip the wires about 12mm, the signal wire about 8mm:

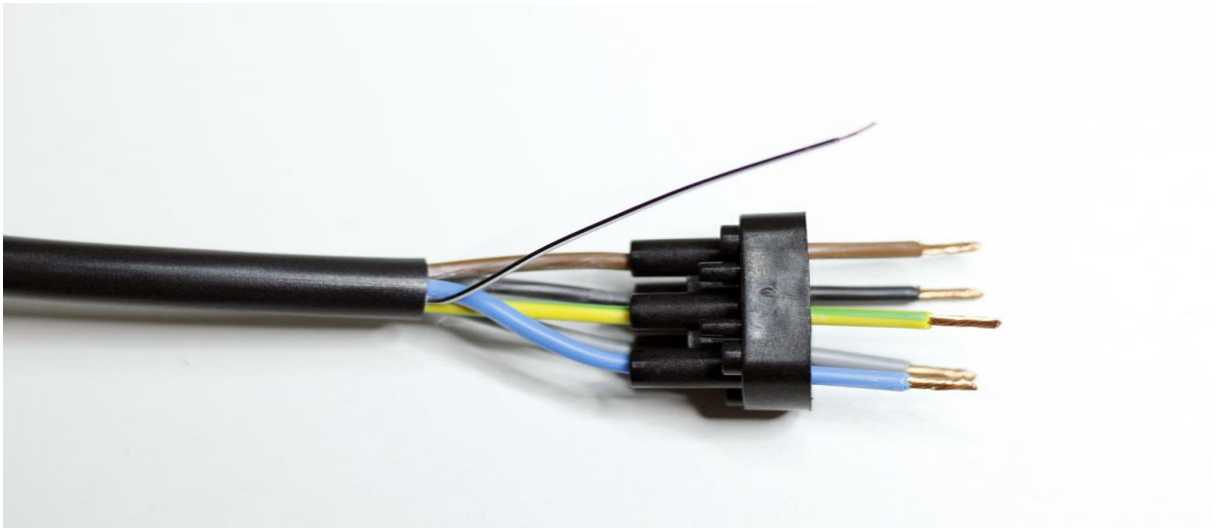


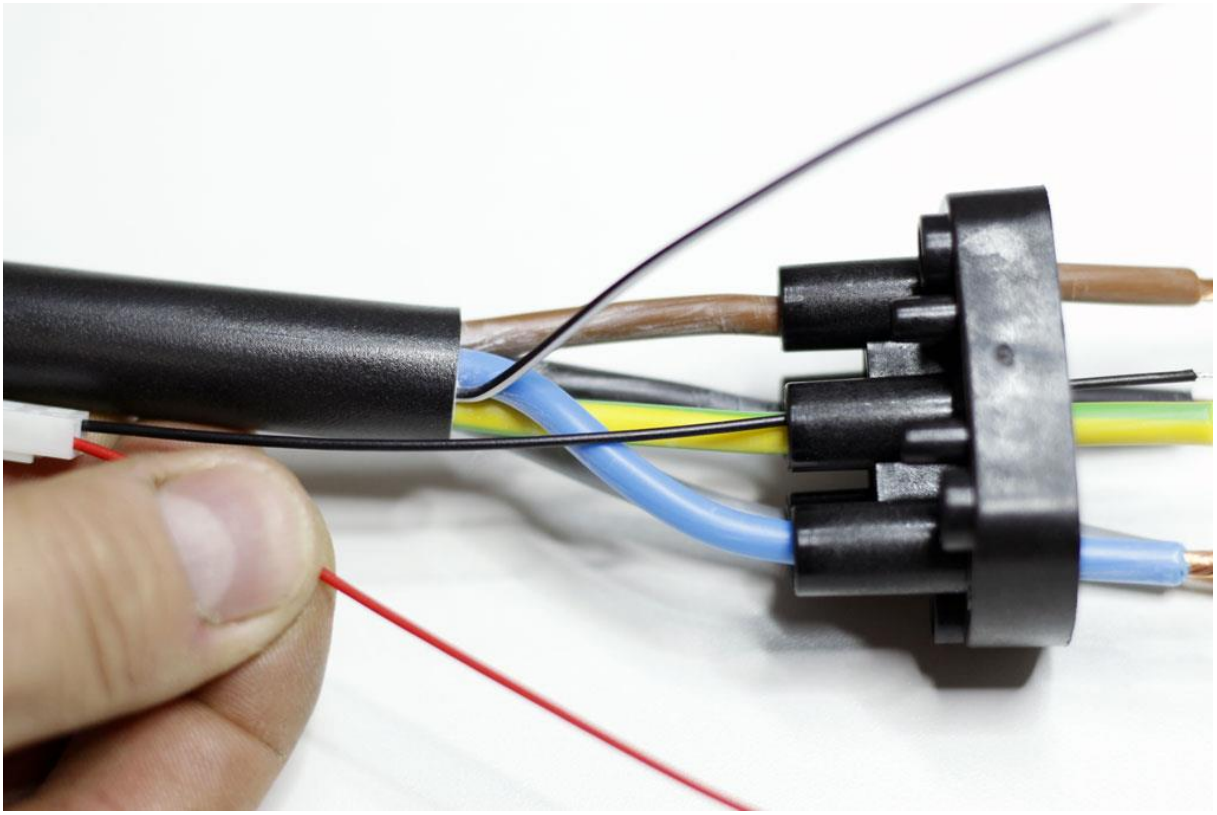
3 INSERT THE WIRES IN THE WIRE HOUSING

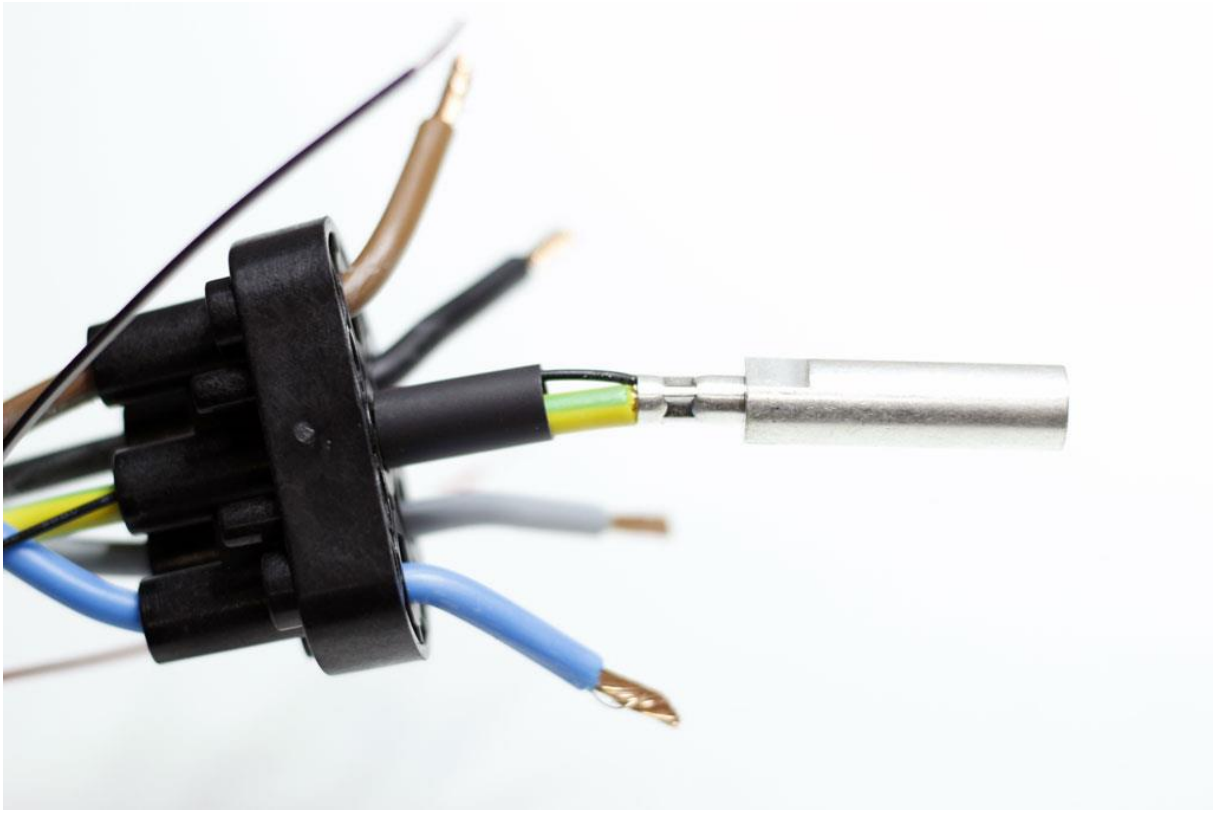
Insert the wires through the correct holes:

- Blue wire through the N hole
- Brown wire through the L1 hole
- Black wire through the L2 hole
- Grey wire through the L3 hole
- Yellow/Green wire through the PE hole

Insert the black cable of the small connector cable supplied together with the yellow/green wire through the PE hole and slide a black shrink sleeve over both. Crimp a terminal on both wires:

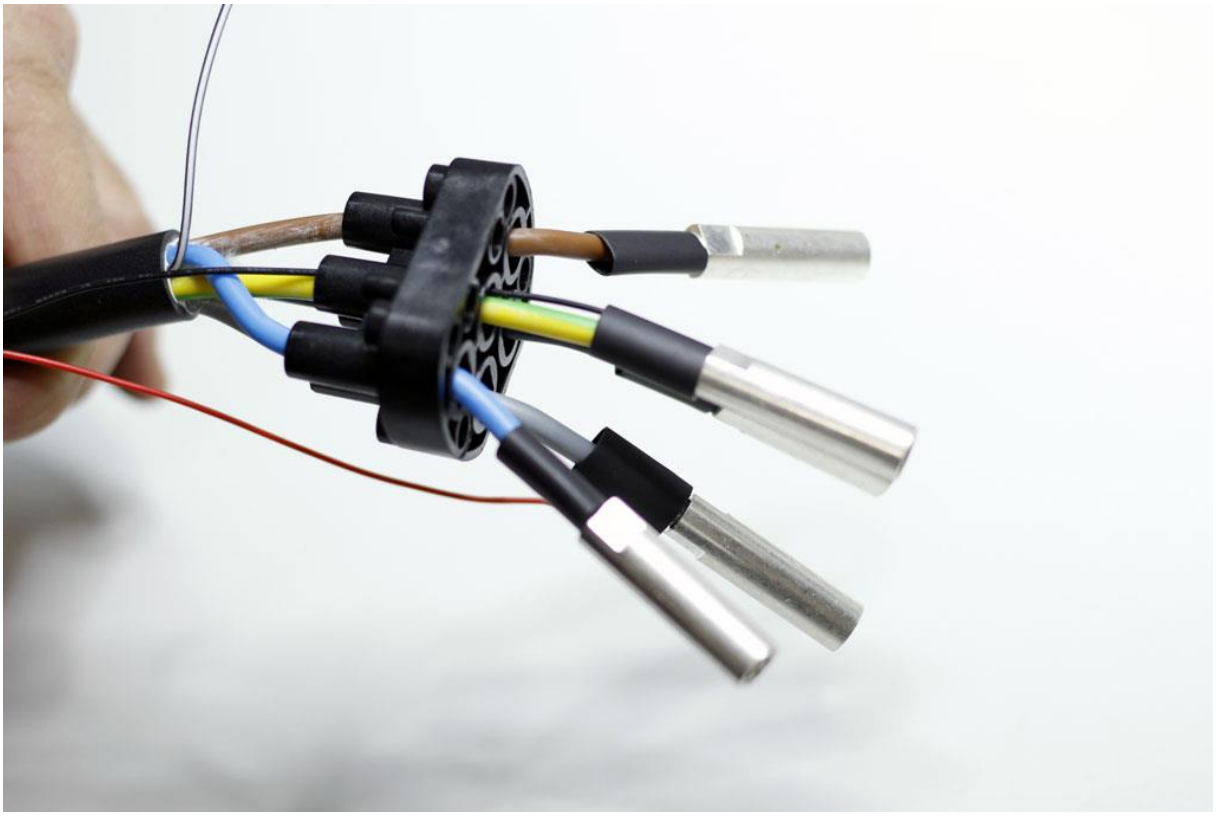






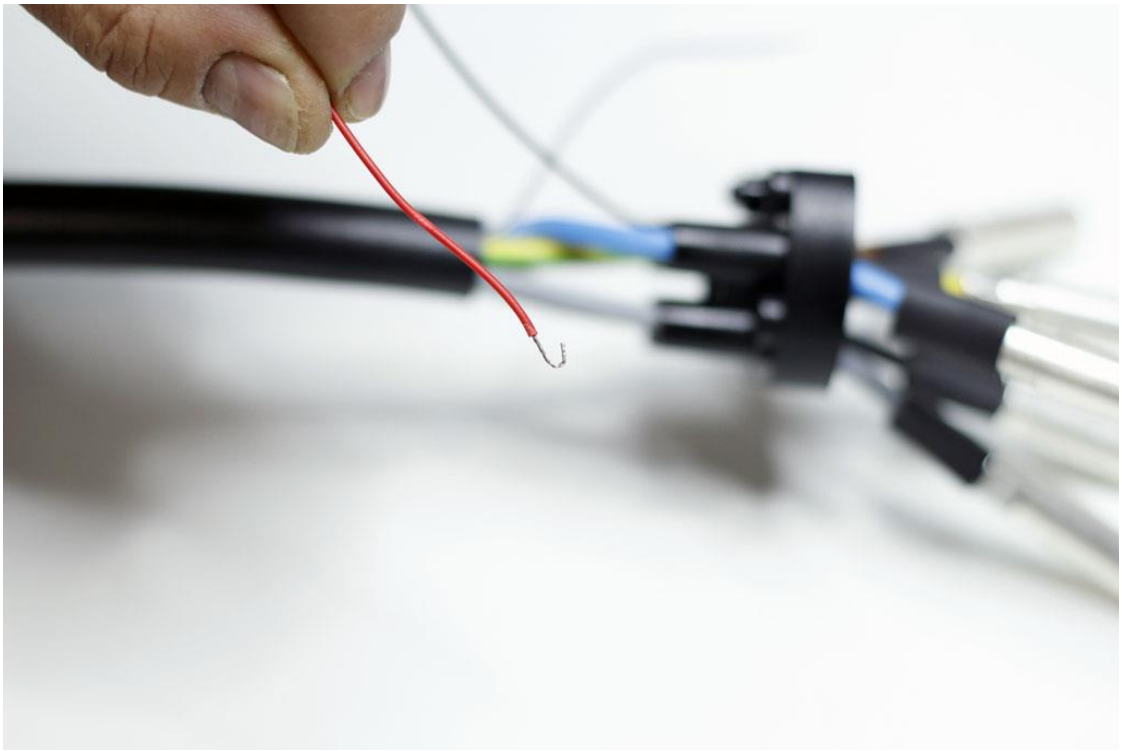
4 CRIMP TERMINALS TO THE OTHER WIRES

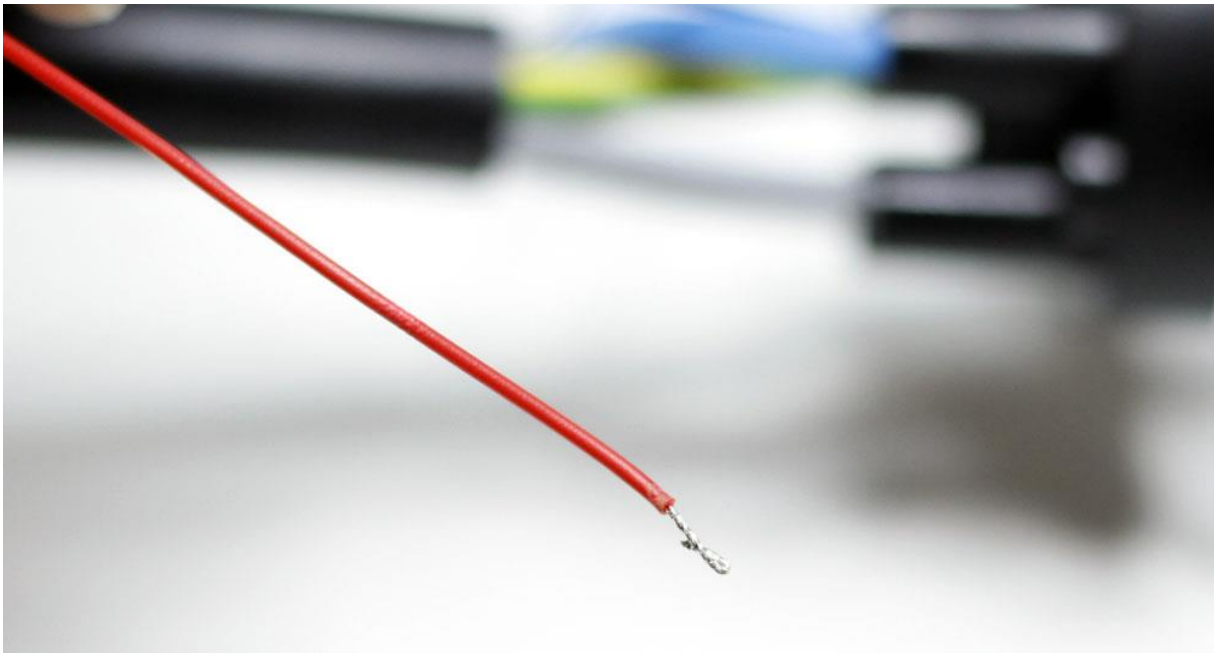
Crimp the other terminals to the other power wires, don't forget to slide a piece of shrinking sleeve over the wire BEFORE you connect the terminal:



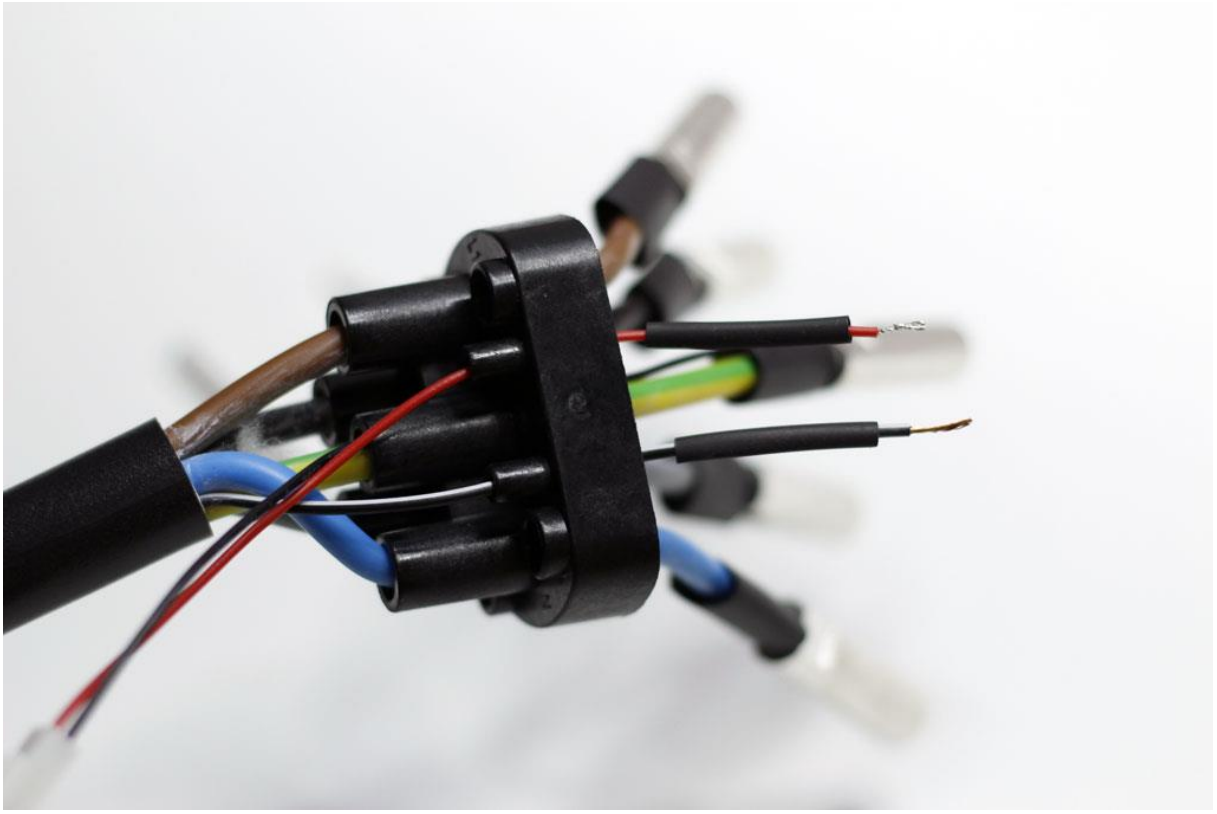
5 INSTALL THE SIGNAL WIRES

Bend the end of the red cable and squeeze it with a pair of pliers so it becomes shorter and thicker. Guide the red wire through the PP hole, the signal wire from the cable through the CP hole. Next insert the wires in a small terminal but make sure to slide a small shrinking sleeve over the wire first!



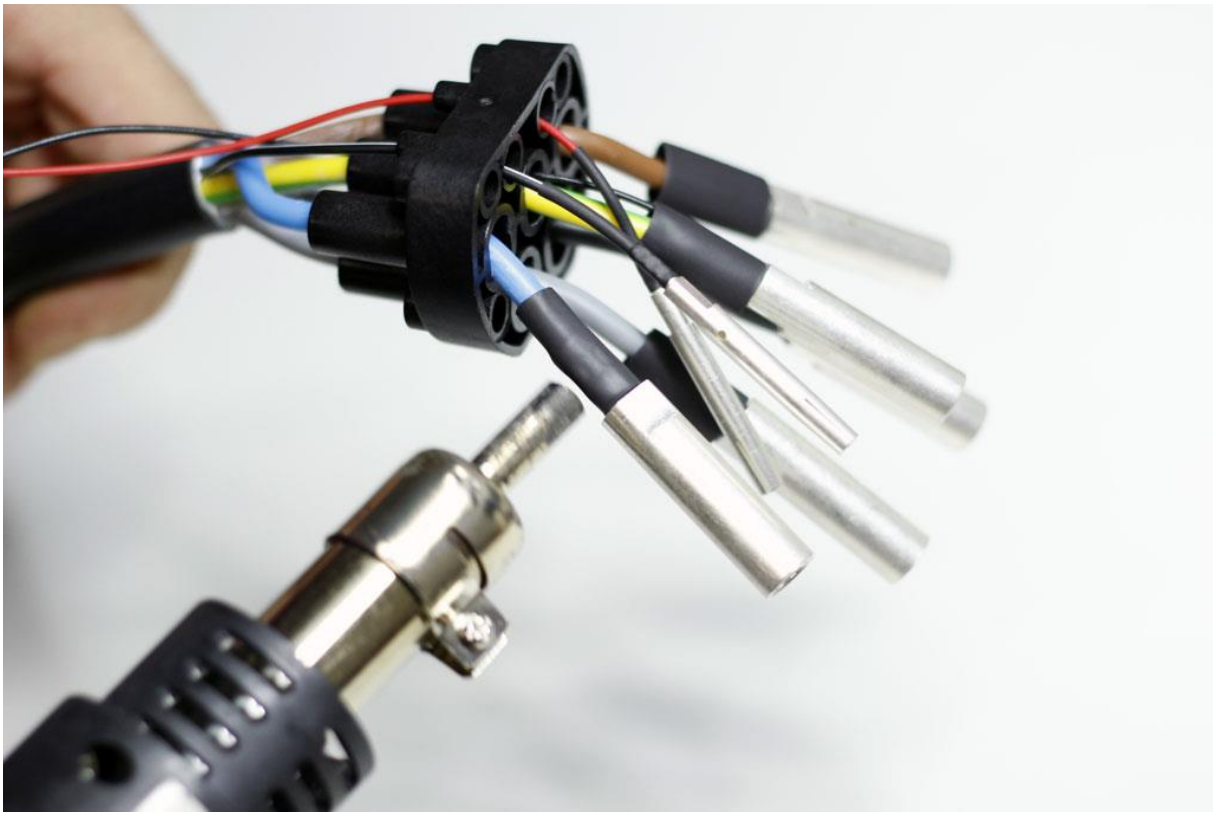


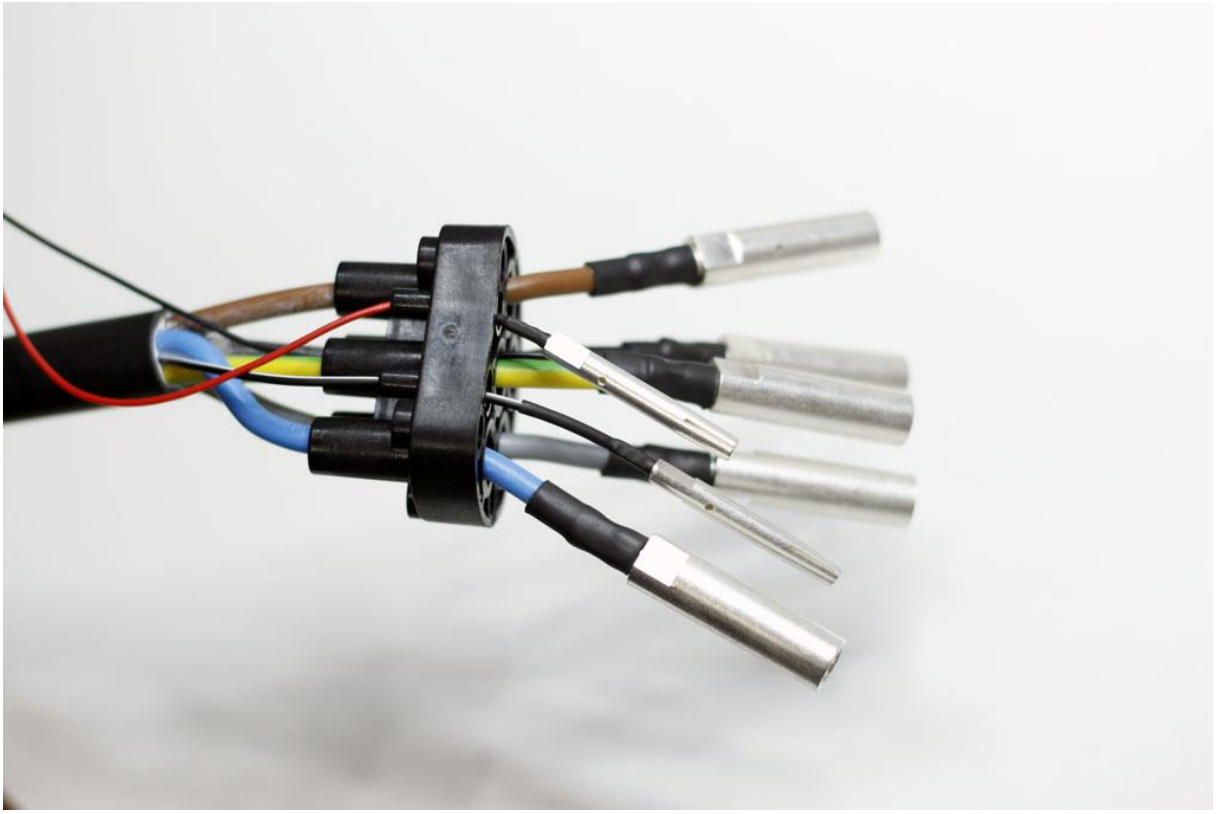
Slide a pice of shrinking sleeve over the small cable wires and crimp the small small terminals on the wires:



6 SHRINK THE HEAT SLEEVES

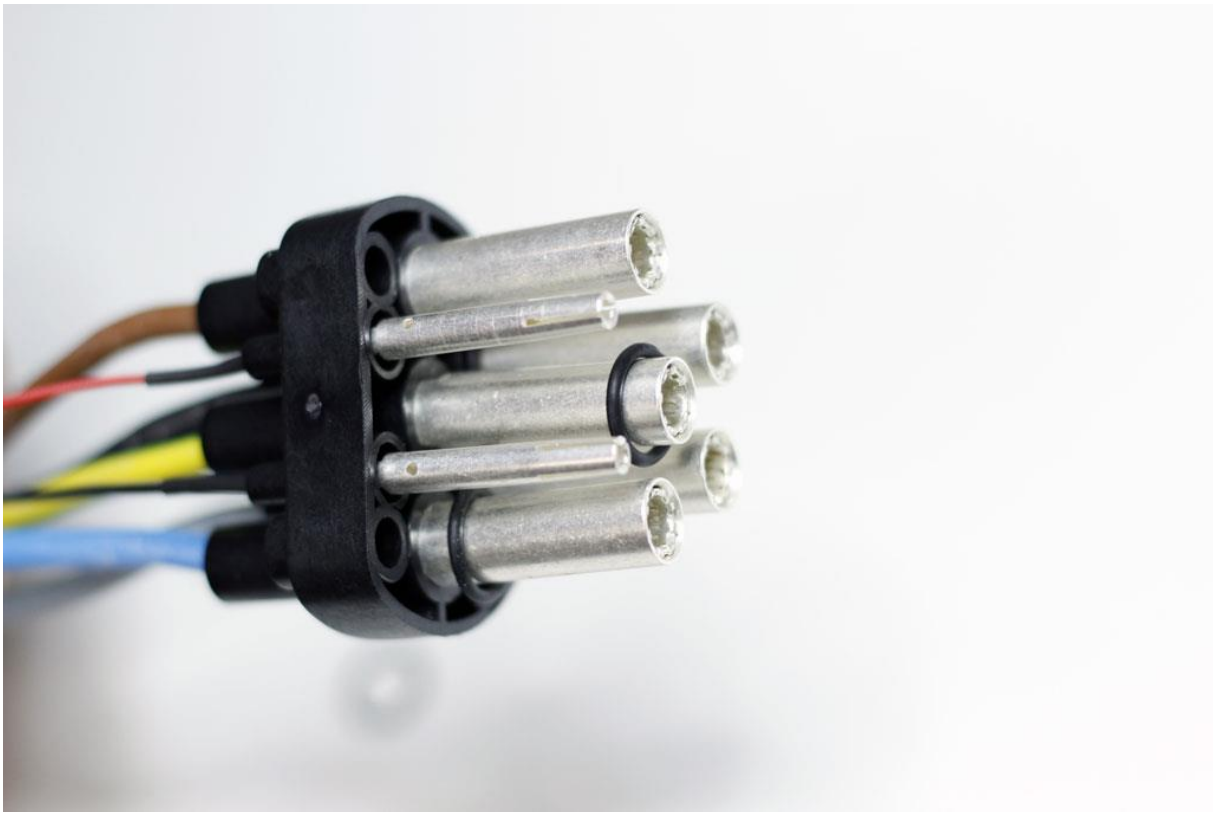
Slide all heat shrinks over the terminal ends and shrink them using an appropriate heat source:





7 INSERT TERMINALS IN TERMINAL BLOCK

Insert all terminals in the terminal block, make sure the terminals are properly seated in the block, the terminals have flat ends that will fit the terminal block holes. Put the supplied O-rings over the big terminals.



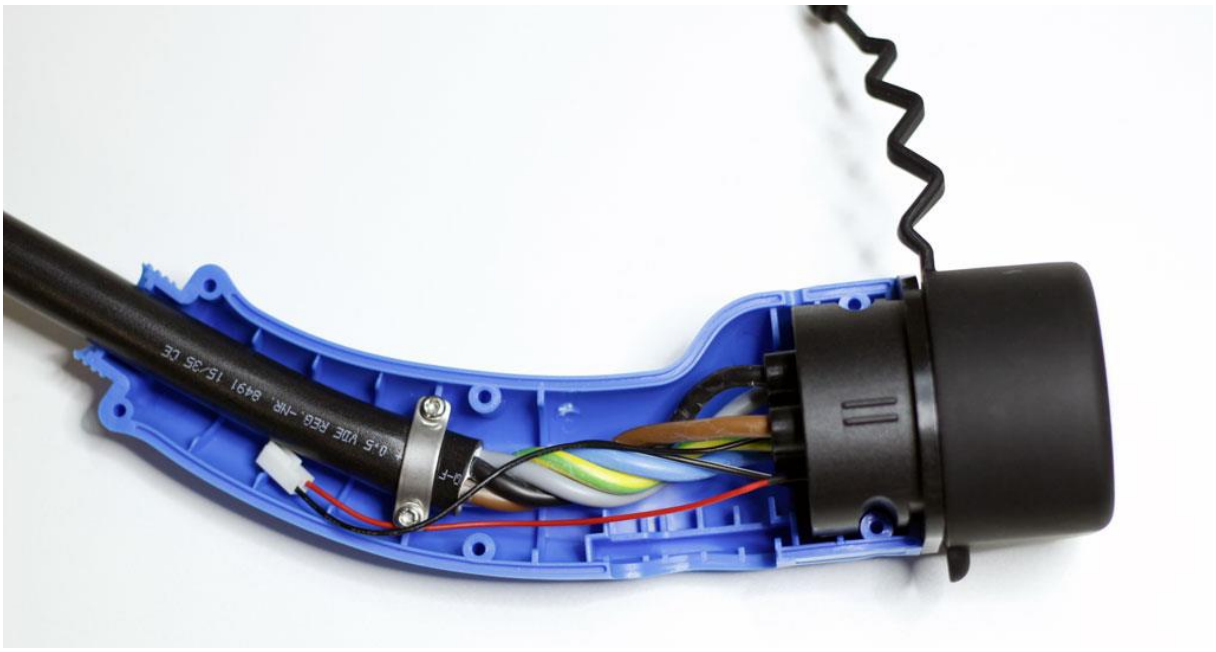
8 ASSEMBLE THE CONNECTING BLOCK

Hold the terminal block with the terminals facing up, and slide the connector block down over the terminals. Some jiggling may be required to insert all terminals in their connecting block hole. Insert the terminal block as far as possible, put on the rubber cap and put the assembly on the table, firmly holding the terminal block down so the terminals don't jump out of the terminal holes.

Using the 4 smallest screws, screw the terminal block to the connector block:

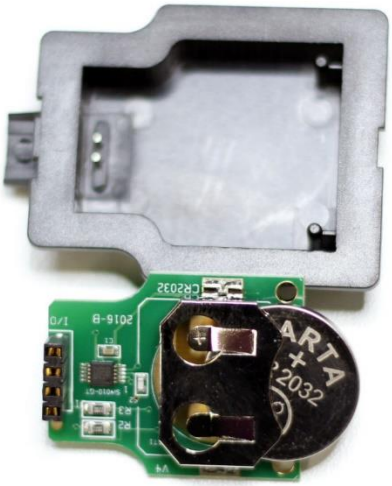
9 PUT THE CONNECTOR BLOCK IN THE CONNECTOR HOUSING

Give the connector block a twist and push it in the right side connector housing as shown in the picture below. Clamp the cable to the connector housing using a single or both cable clamps (use both for smaller diameter cables) and 2 **short** screws.



10 ASSEMBLE THE ELECTRONICS CONTAINER

If not already done, slide the supplied battery in the electronic print, taking care to have the + side pointing away from the print and GENTLY push the print in the box with the 2 pins as in the pictures below:

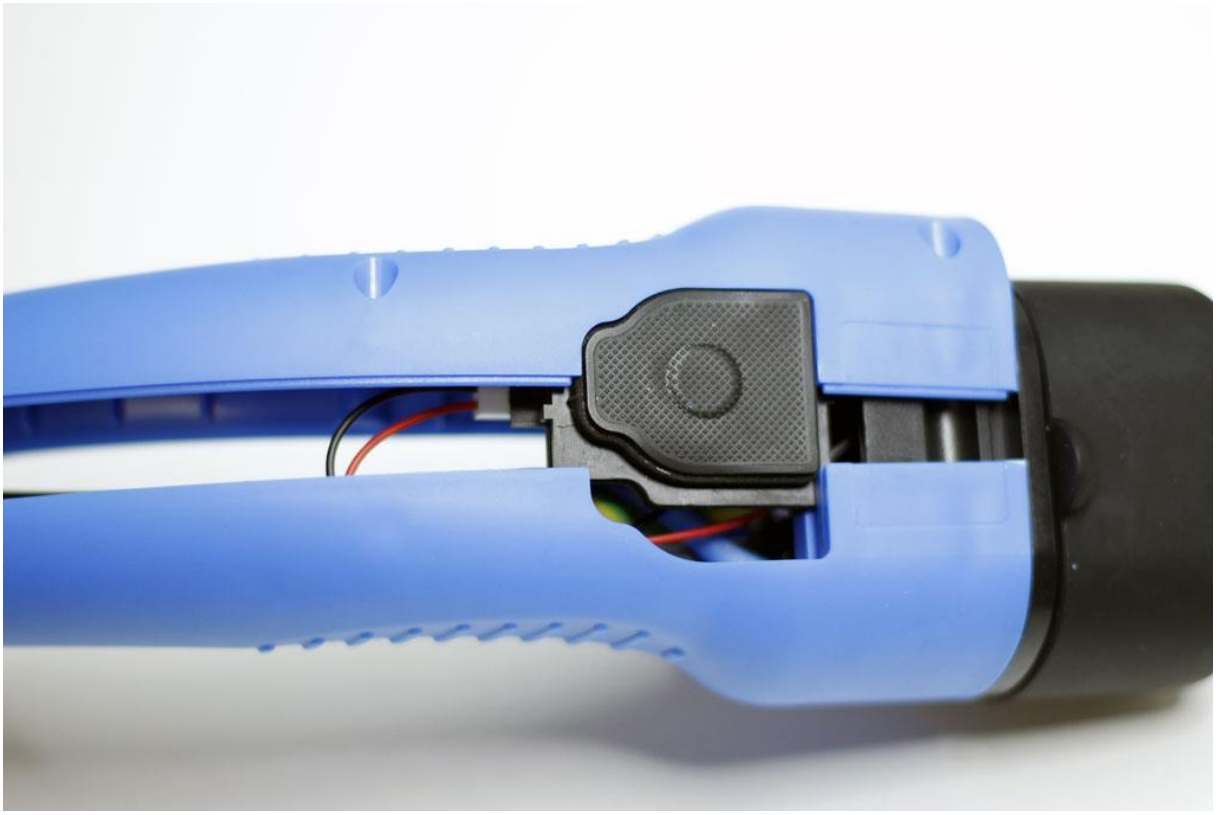


11 INSERT THE ELECTRONICS CONTAINER IN THE HOUSING

Close the electronics container and insert it into the left side of the plug housing. Apply some pressure to slide the container into the housing. This will firmly squeeze the container halves together. Connect the small white plug of the black/red wire to the electronics box (watch the alignment grooves)

Next, close the plug by mating the 2 housing halves, thereby inserting the electronics container in the right side of the housing and further squeezing the electronics box halves together making it 100% waterproof. Don't forget to put the rubber cap end in it's hole before closing the plug!

Also, **take care not to squeeze the small red and black wire between the housing halves**! They can be cut when caught between the housing halves…



12 SCREW THE PLUG HOUSINGS TOGETHER

Using 4 short screws for the rear holes, and 2 long screws for the front screws, screw the 2 housings together. Don’t overtighten! Position the cable gland and screw the black end on the housing, again, do not overtighten!

13 ET VOILA :

14 TROUBLESHOOTING

To do a basic check of the cable, all you need is an Ohm-meter to test some resistances. To tell the car and charging station how thick the cable wires are, every connector has a resistance built into it. You can measure this resistance between the Earth and the Proximity Pilot (PP). Without the button pushed, you should measure the following resistance:

- For max 13A cables (1,5 mm² wire section) : 1500 Ohm
- For max 20A cables (2,5 mm² wire section): 680 Ohm
- For max 32A cables (6 mm² wire section): 220 Ohm
- For max 63Ahort screws cables (16 mm² wire section): 100 Ohm

The reading can be off a few Ohms, that is quite possible. It should be within a 2% range normally. If you don't measure any resistance between Earth and PP, something broke or one of the small wires snapped, and your car will not charge at all, because it cannot figure out what the max current is it is allowed to use. Open the connector and inspect the wires.

If the resistance checks out OK, measure the resistance between Earth and PP, and push the button. You should see the resistance change to around 440 Ohm. If it does not, something on the circuit board is wrong and you will need to send it back to us for replacement.

If the chargeport doesn't open when pushing the button but the resistance changes, possibly the battery has drained or there is a fault in the electronics.

If all of the above does not solve the problem, or you have found a component to be faulty, please contact us to discuss the problem and work out a solution!

We wish you an electrifying Tesla Experience!

EVChargeKing

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