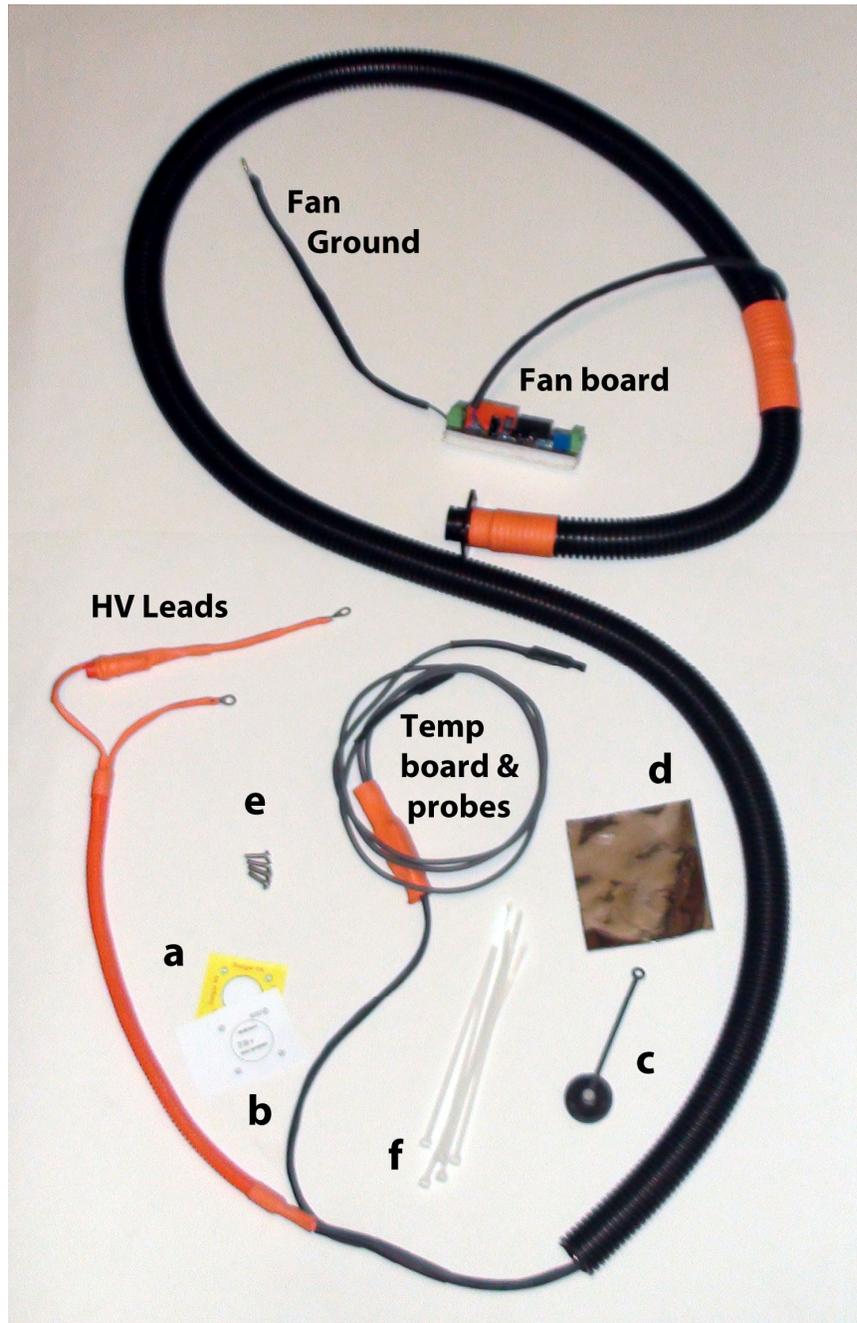


## INSTALLING THE HYBRID ReVOLT UNIVERSAL GRID CHARGER IN A FIRST GEN ACCORD (2005-2007)



### This harness kit includes:

Accord harness (2005 to 2007)

- |     |   |     |                |
|-----|---|-----|----------------|
| (a) | 1 HV warning label                        | (b) | Drill template |
| (c) | 1 charger connector cover                 | (d) | Aluminum tape  |
| (e) | 4 #6 mounting screws for HV label / cover | (f) | 5 zip ties     |

## You will need the following tools and equipment:

Good pair of small wire cutters

Wire stripper

Metric sockets (10mm and 12mm deep)

#2 Phillip screwdriver

Wide flat blade screwdriver

Torx T-30 driver

Digital multi-meter (Radio Shack or Harbor Freight have inexpensive ones)

7/8" Step drill bit (Optional)

Razor blade or box cutter

## Instructions:

*Note: All references to front, back, left, right, or top are in relation to the vehicle. A reference to the front of the pack would mean a location on the pack towards the front bumper, left would reference toward the driver's side, etc.*

**WARNING:** *The IMA battery contains lethal voltage, even when the vehicle is off! Install at your own risk. You must evaluate your abilities to safely perform this installation and seek qualified help if you are not 100% certain in your abilities.*

## Instructions begin here:

### **Disconnect the 12 volt battery:**

Open the hood and disconnect the 12 volt battery negative cable and secure it out of the way. Note what time it is when you disconnect the 12 volt.

## Remove the rear seats:

Seat bottom:



Remove 10mm bolt from here

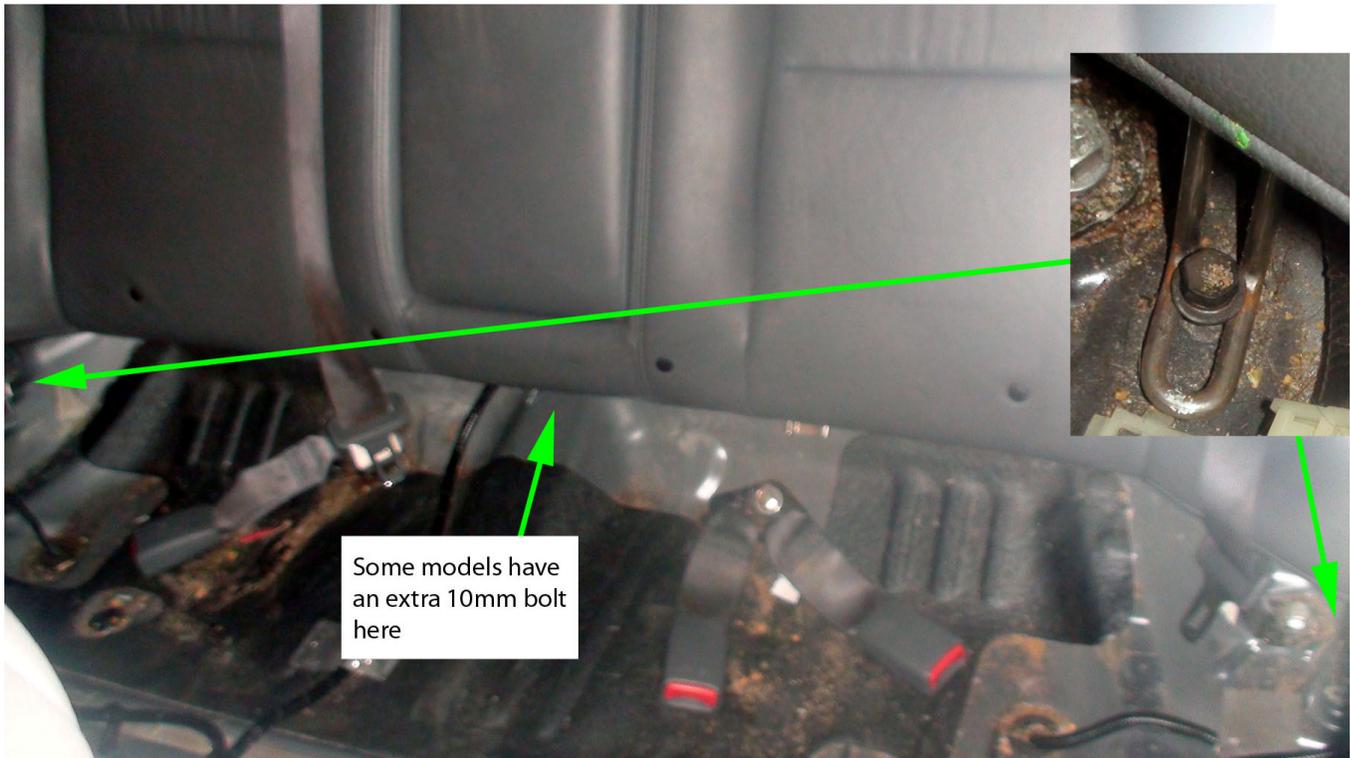
\* Lift seat bottom and remove, it is held down in the front by two legs, lift at these two points to unclip



We first need to remove the back seat. We start with the seat bottom. There is a 10mm bolt located between the seat bottom and back (green arrow above). Remove this bolt, then pull up on the front of the seat near the red asterisks. The seat is held in place by two latching legs. Pull up on the front until it unclips, then remove the seat bottom.

During reinstallation, align these legs with the holes in the floor and push down until they click into place. The rear loop might need to be raised or lowered to align the bolt, just lift or push on the back of the seat as needed to install this bolt.

## Seat back:



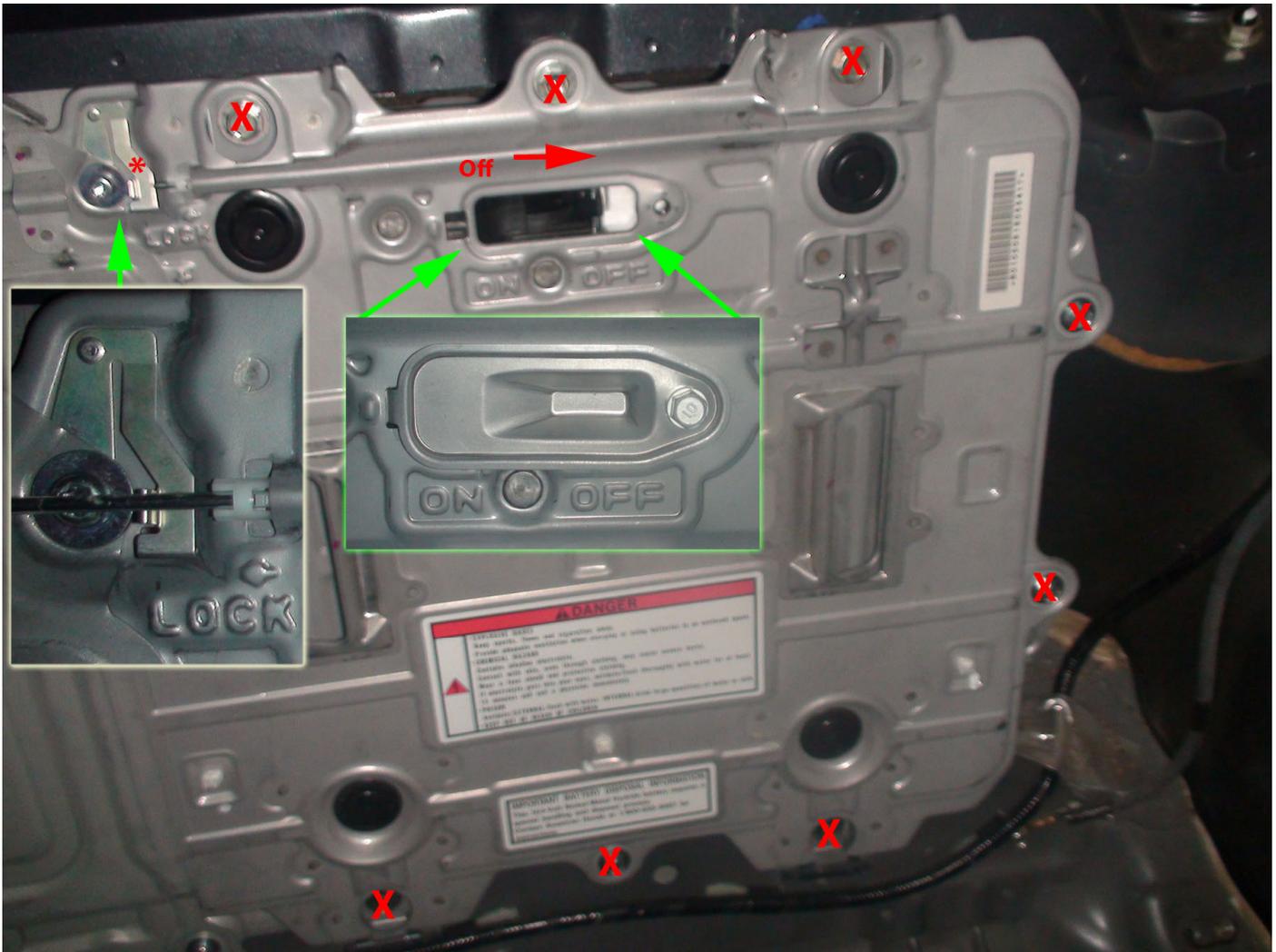
Remove the headrests and unclip the middle seat belt from the top of the seat back.(not shown)

To remove the seat back we must remove 2 or 3 more 10mm bolts. Some models only have 2 bolts, while others have 3. Remove all 3 bolts. After the bolts have been removed, the seat is still held in place by metal tabs behind the top. These tabs point downward, so you must lift the entire seat back up about two inches to clear these tabs. Once you have it lifted, pull the top of the seat forward gently. If it won't go, you must lift higher. Make sure to pull the seat belts and route them over the seat as you remove it. ***A helper makes this part much easier, as you can then lift from each side.***

Reinstallation is the reverse, you must lift the seat high enough for these tabs to engage and then push the seat downward. Try pulling the top of both ends forward, if it moves away from the rear dash, you didn't get that side in place and must try again. Don't forget the seat belts! Again, a helper makes this part much easier.

## Access the IPU:

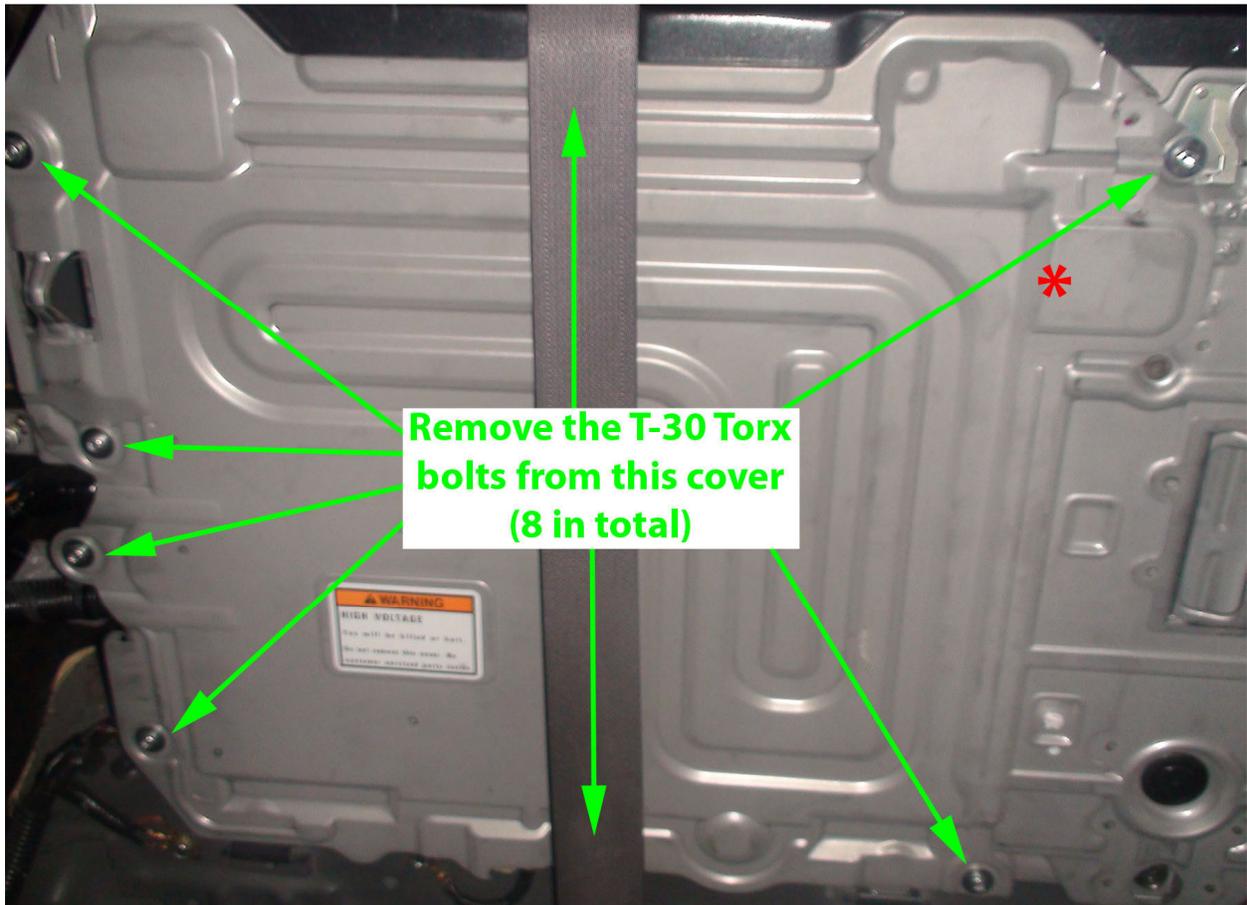
Turn off the IMA battery and remove bolts:



First, remove the 10mm bolt next to the on/off switch (green box). Remove this cover and turn off the switch by sliding it in the direction of the red arrow. Notice how the switch connects to a bar on the left and the safety catch (red asterisk), to turn the battery back on, you must push down on this latch while turning on the switch. For now, leave the battery OFF.

Next, remove the four 10mm and four 12mm bolts holding the battery in place (red X's). **Note the time now:** Has it been AT LEAST 15 minutes from the time you disconnected the 12 volt? If not, **wait!**

Open the IPU cover:



The IPU cover is held in place by eight T-30 Torx bolts. Remove all either Torx bolts, then remove the cover and set aside.

Now, check between the HV leads for voltage (shown below). *If voltage is higher than 12 volt – STOP and call us!* (Leads located under red asterisk in above photo)

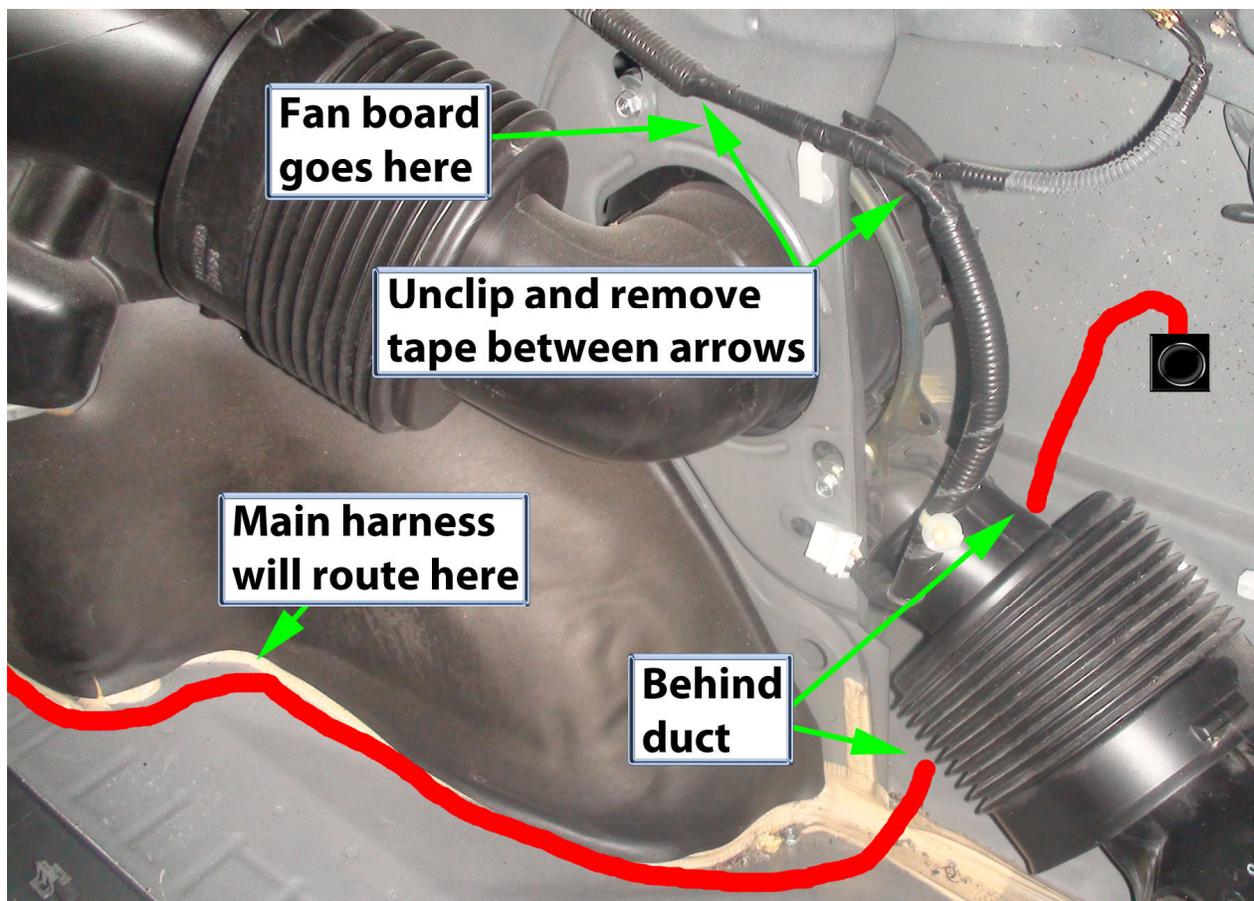


**Voltage between these two points should be 12 volt or less.**

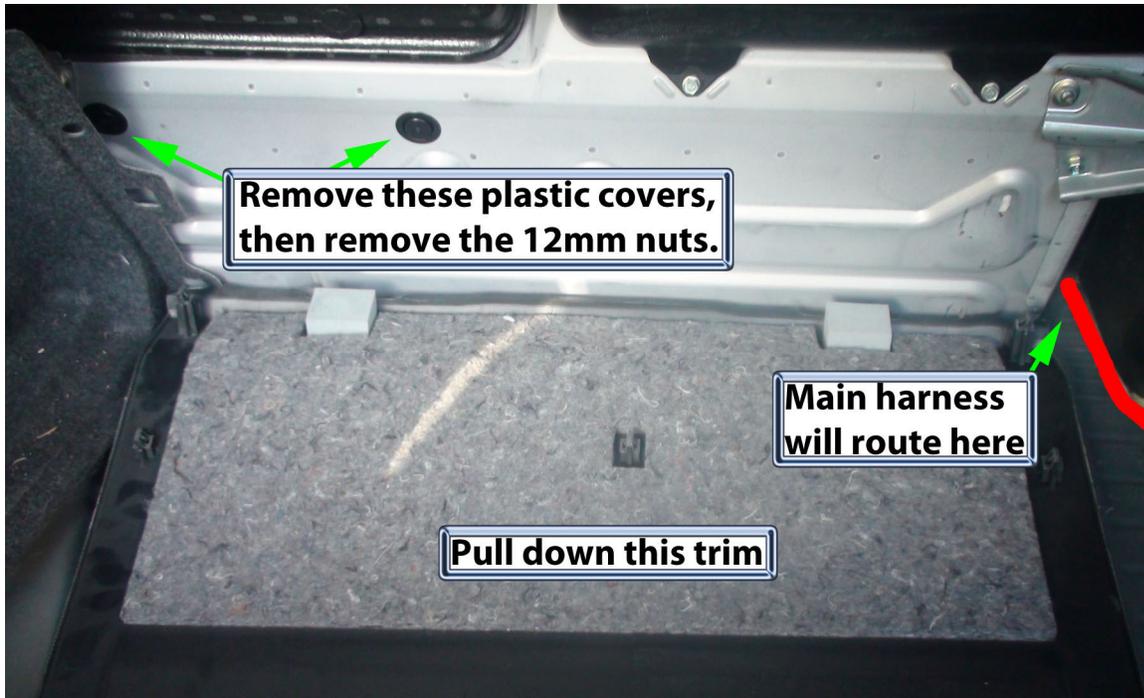
## Route the harness and mount the bulkhead connector:

Remove the carpet trim on the back side of the IPU and from the right side of the trunk. The harness HV leads and temperature board are routed from the trunk to the IPU from the right side as shown by the red line in this photo (see also 1<sup>st</sup> photo on next page). The bulkhead connector will be mounted in the carpet trim on the right. The fan driver will be mounted above the fan.

Locate the fan wiring. Remove the electrical tape covering the fan wires as shown. We will need to splice into these wires in order to drive the fan with the charger.

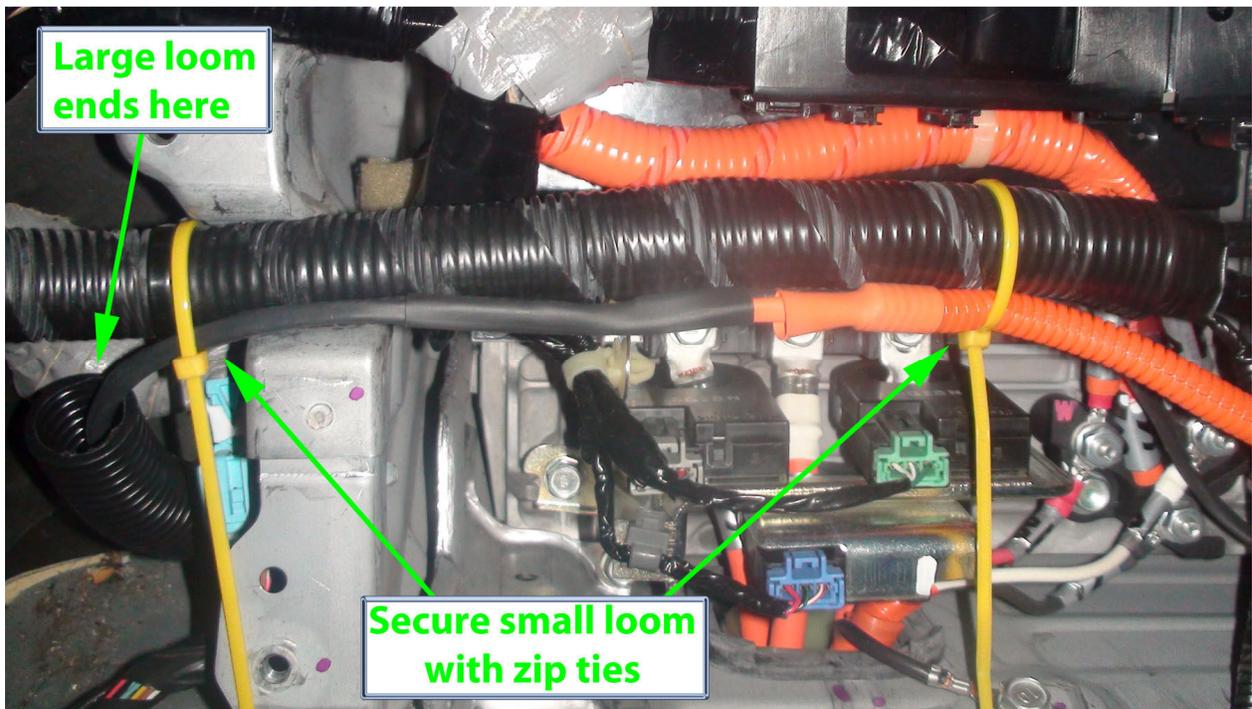


The main harness will follow the route outlined by the red line above. Continue routing the wire between the IPU and side of the vehicle so that the large loom ends just prior to entering the IPU (photos, next page). Secure small loom with zip ties as shown. Trim excess length from zip ties.



Remove the two black plastic covers and the 12mm bolt under each cover.

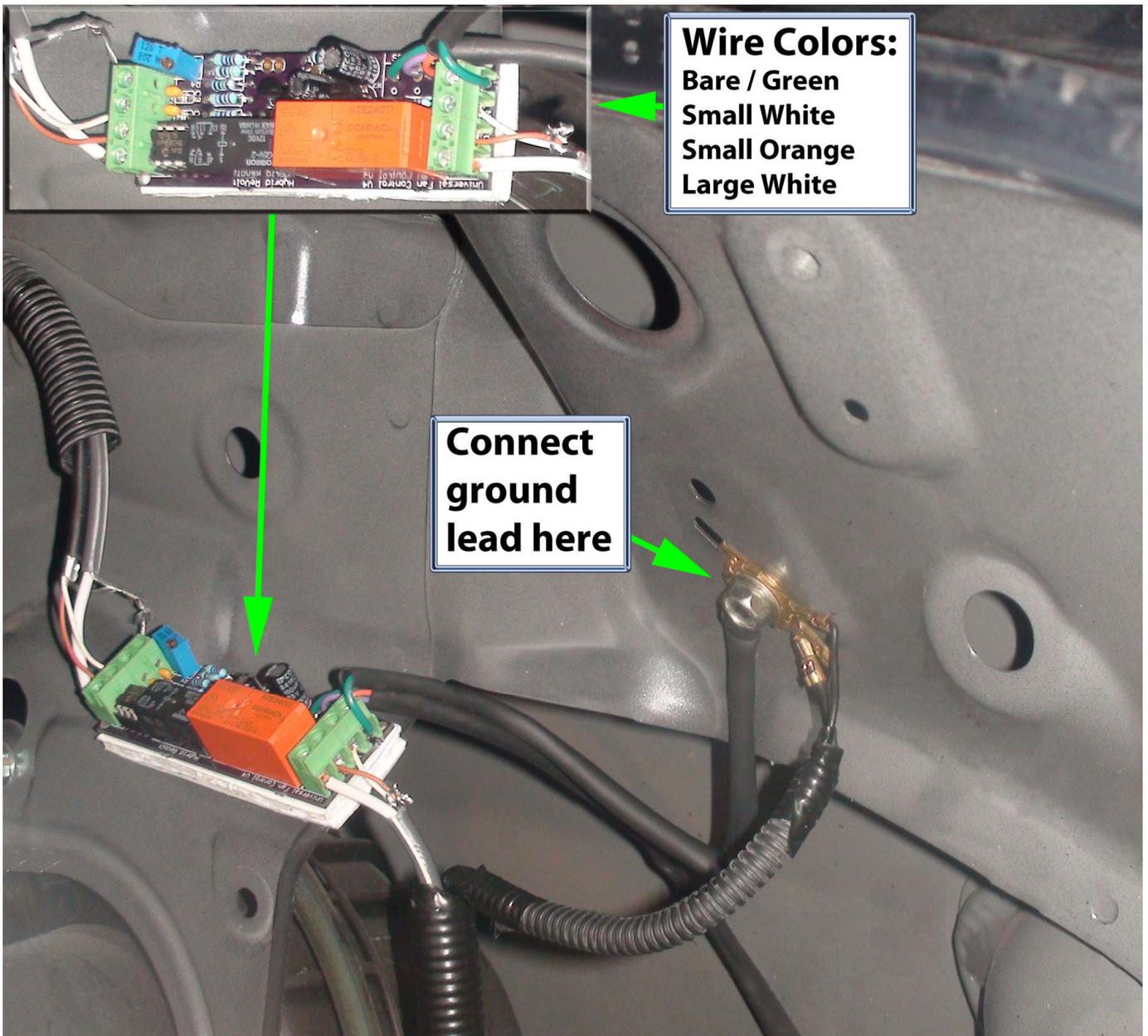
Route harness into the IPU as shown below.



### Connect the fan board:

The fan board is located just above the fan. Affix the fan to the location shown below. Note the location of the orange relay and orientate the board properly.

Splice the fan board into the wire as shown. Make sure to connect the bare shielding wire to the front and the green ground wire to the rear of the fan board. Wires connect to the fan board as shown below, listed from top to bottom.

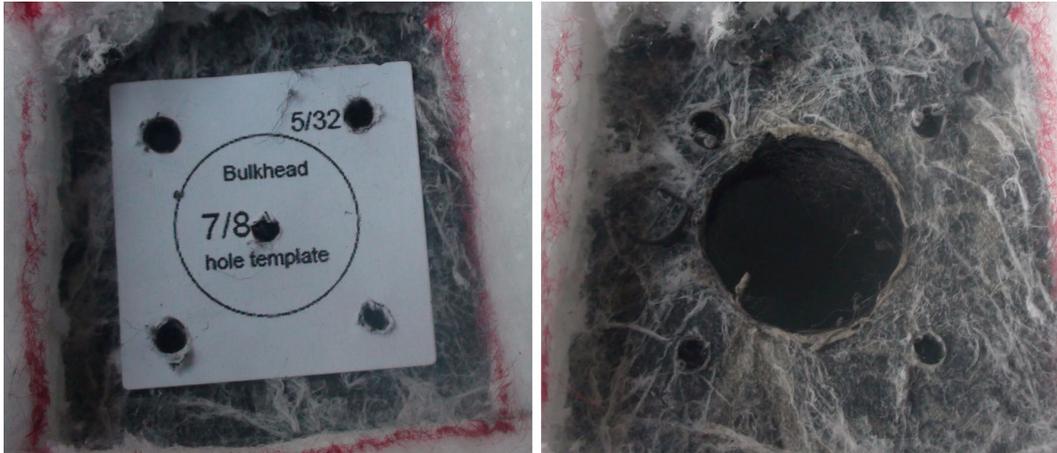


## Bulkhead connector:

The bulkhead connector is mounted in the right trunk trim. Mark the area shown in the photo, slightly larger than the bulkhead template. You will need to remove the white sound insulating material within this box. ***DO NOT CUT ALL THE WAY THROUGH!***



Clear as much of the white insulation as possible. Place the bulkhead template in the area you just cleared (below, left) and drill 5/32" holes in each of the four outer places and also in the center of the 7/8" hole. Using the 7/8" step bit, finish drilling out the center hole. The result should look like the photo (below, right).



### Mount the bulkhead connector:

Using the #6 screws mount the bulkhead connector, warning label, and safety cover as shown.



## **Connect the harness HV positive and negative leads to the IMA battery and route the temperature probes:**

*Verify that the IMA switch is OFF.*

### Mount the inlet (top) temperature probe:

Disconnect the heavy orange cables and tilt the IMA battery forward. You must lift the battery slightly as it has two studs protruding from the rear. Route the inlet temp probe as shown, with the sensor inserted just inside the foam casing (photo, next page, bottom left). Secure the wire with the included aluminum tape as shown. Reinstall the IMA battery; making sure you lift it enough to align the rear studs. (As an alternative solution, these studs are removable, remove the studs, install the battery, and then reinstall the studs from the trunk – do not leave the studs out!).

### Mount the outlet (bottom) temperature probe:

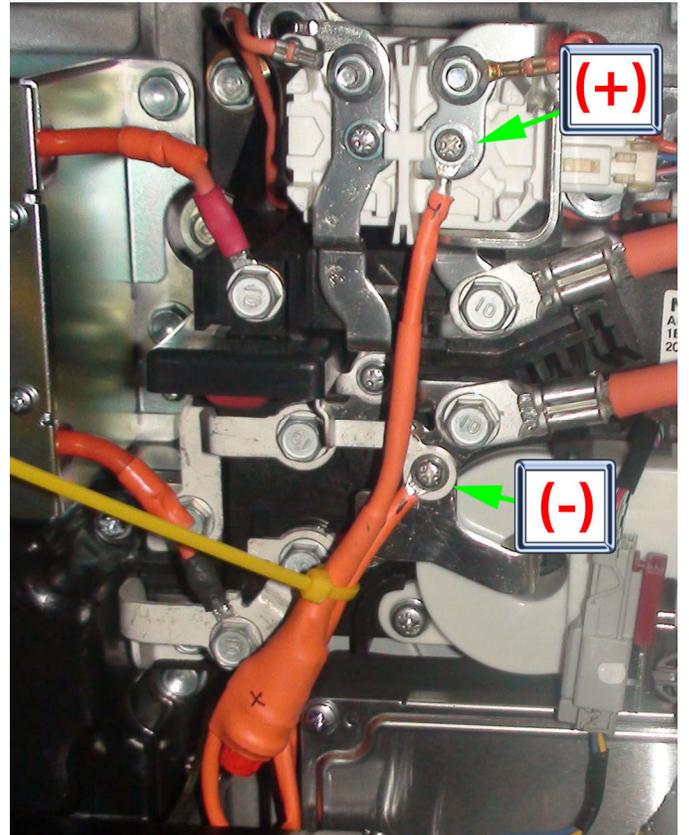
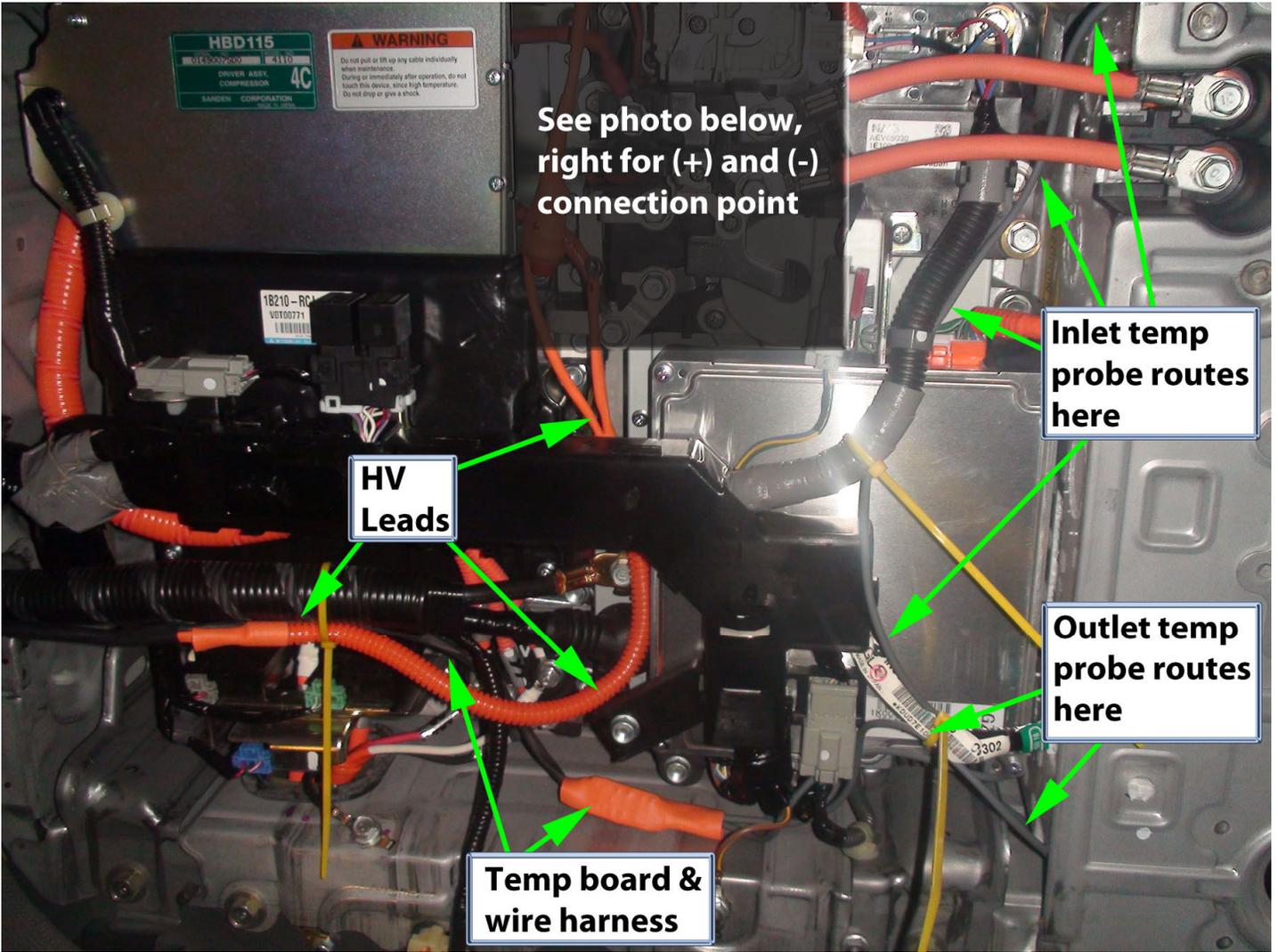
The outlet temp probe has a shorter wire lead and does not need additional attachment. It is placed in the gap below the IMA battery.

### Connect the positive and negative charger leads:

Using a Phillips screwdriver, connect the positive (+) and negative (-) leads from the harness at the indicated locations. (Photo, next page, bottom right, (+) *and* (-) *are marked on photo, (+) has the in-line fuse*)

Once completed, fasten all wiring with a zip ties as shown.

(Photo's on next page)



## **Reinstall the IMA battery and Close the IPU (IMA) compartment**

Make sure all harness wires are properly secured and away from any sharp edges.

Installation of the IMA battery, IPU cover, rear seats and trunk trim is the reverse of removal.

Once you secure IMA battery and install the IPU cover (Page 5 & 6) and trunk trim (Page 7 & 8), turn on the IMA battery and test the charger. Connect the charger to the bulkhead connector; turn on the charger and set the charger for Mode 1 and make sure the vehicle profile matches. Verify that the charger is now reading pack voltage. Depending on the SOC of the pack, this can be anywhere from 140V to 170V. If the pack is extremely discharged it may be lower. Now press start and verify that the charger is reporting 1000mA or higher going into the pack and also that the IPU fan has started. If there are any problems, turn off the charger and disconnect it, then give us a call at 623-444-5463; otherwise stop the charger, turn it off and disconnect it so you can finished putting the car back together.