

DISCLAIMER: PROFESSIONAL INSTALLATION IS STRONGLY RECOMMENDED

Estimated install time is based on your level of experience and confidence. This can easily take anywhere from 4 to 8 hours if you include the sunroof. Plan accordingly! You'll need some time!

DIY DIRECTORY:

PHASE 1 : SUNROOF HARNESS (#1 on next page)

Pages 3 - 16

PHASE 2 : SYSTEMS HARNESS (#2 on next page)

Pages 17 - 22

PHASE 3 : CANBUS COMMS HARNESS (#3 on next page)

Page 23

PHASE 4 : POWER HARNESS (#4 on next page)

Pages 24 - 26

Tools/accessories you will need:

K5OS CCM
Philips screwdriver
Wire stripper
Heat shrink
Electrical tape/velcro
Zip ties
Soldering iron w/solder
Sidecuts
Trim panel removal tools

Optional tools:

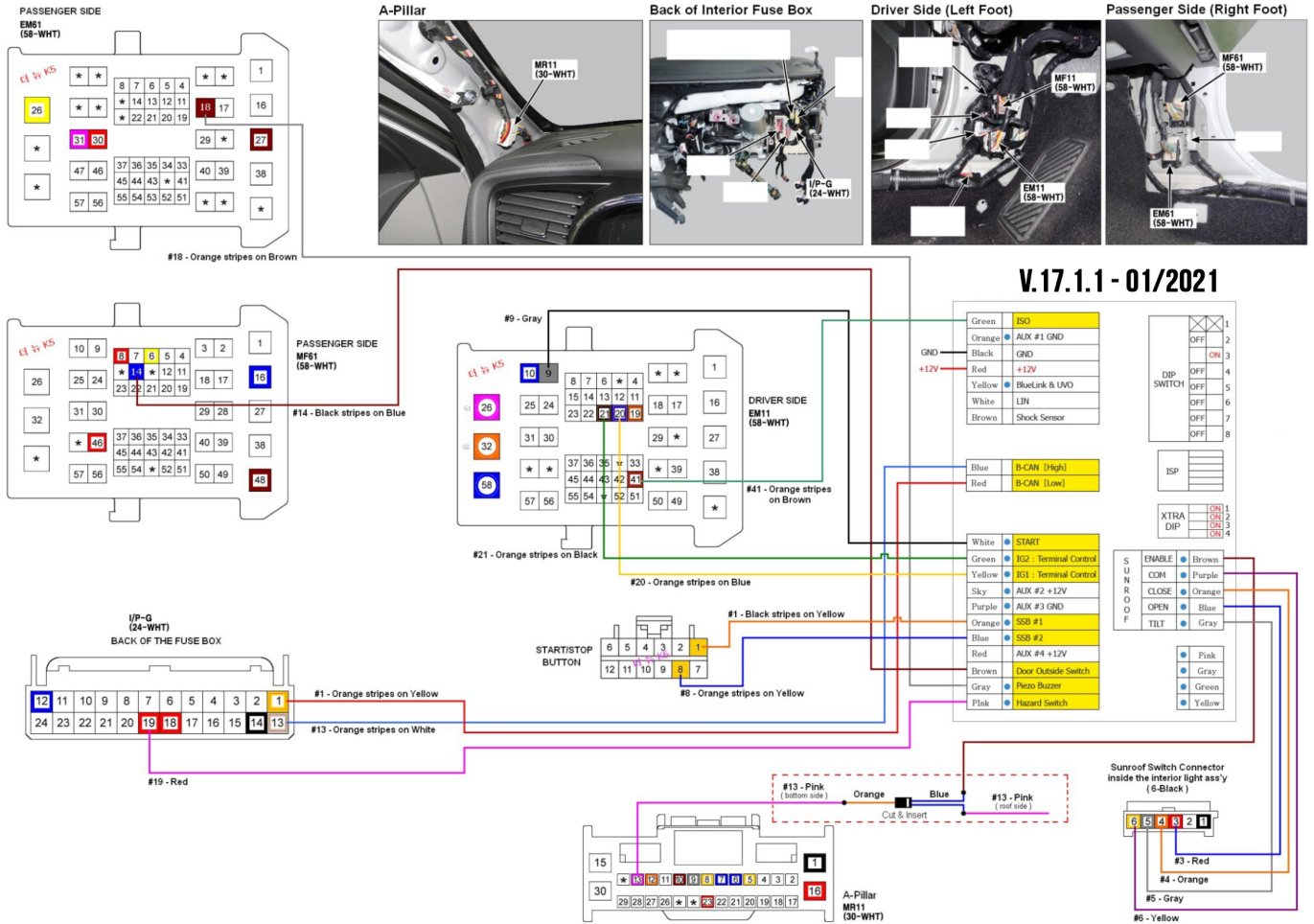
Posi-taps (if you choose not to solder)

This install took place on a 2015 model, also referred to as "NEW K5" on the install documents for this product.

The next page contains the wiring diagram for the "NEW K5" install on firmware 15.2.1

2014-2015 Kia Optima (Non-Hybrid)

CANBUS CONTROL MODULE - 2014-2015 KIA OPTIMA



PHASE 1 : SUNROOF HARNESS (#1) - 5 wires, 5/5 used

If you aren't installing the sunroof function, skip to **IMG 04**.

To start, you'll need to remove the A-pillar cover.

The pillar is held in place by a gray safety clip, and we couldn't find a way to remove it so we cut it.

See **IMG 01, A** and **IMG 02, A**

UPDATE: The gray retaining clip can be removed by grabbing with needle-nosed pliers and turning it 90° - No need to cut!

IMG 01, B is the harness you will tap into, more in **IMG 19**.





Keep your wiring diagram handy!



Remove the plastic panels covering the wire harnesses.

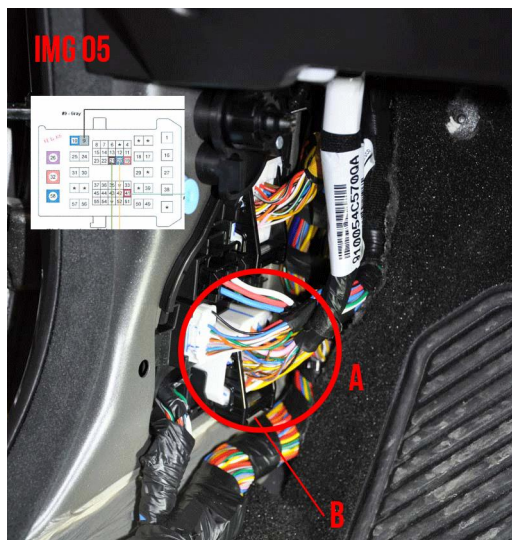
IMG 04, A is where the hood latch is located. Try finding a small socket to go over the 4 prongs holding it in to pop the handle off.

IMG 04, B is where you have to remove the small plastic screw holding it in place. Pull up on the door sills to remove the panel completely.



IMG 05, A is the harness you will tap into on the driver's side : **EM11**

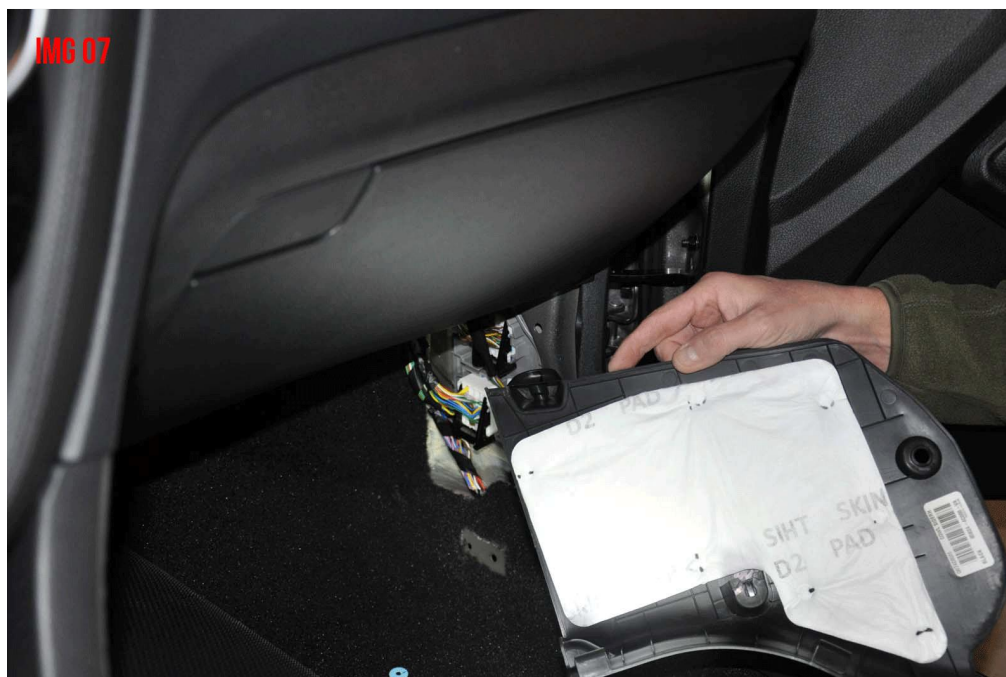
IMG 05, B is the tab to release the wiring harness once you need to take it out



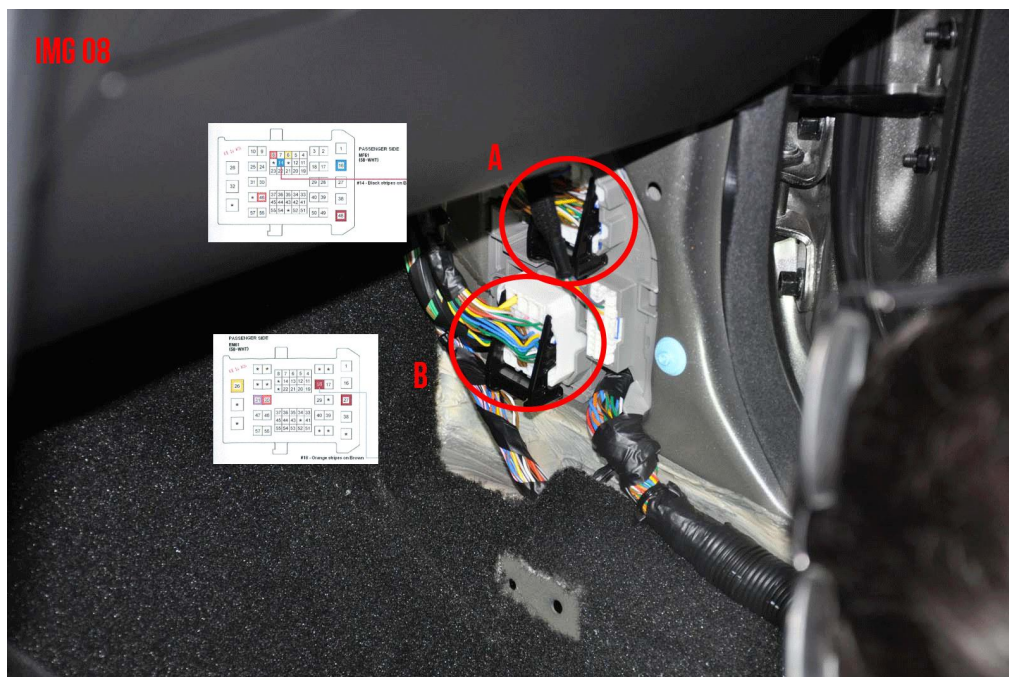
IMG 06, A is the plastic screw on the passenger side



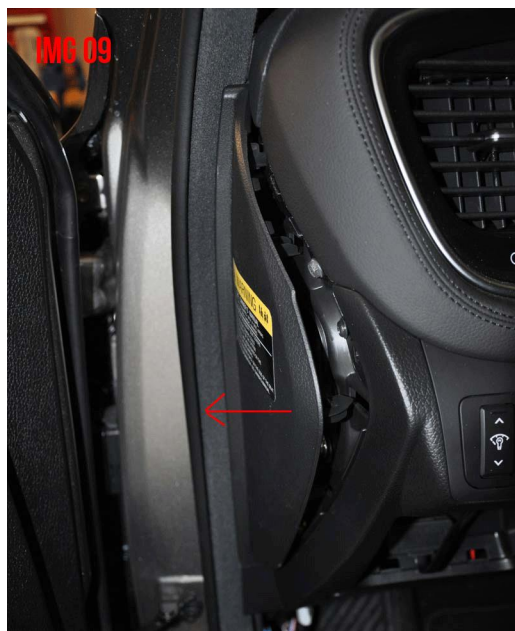
IMG 07 - Remove the shit skin pad 🤪



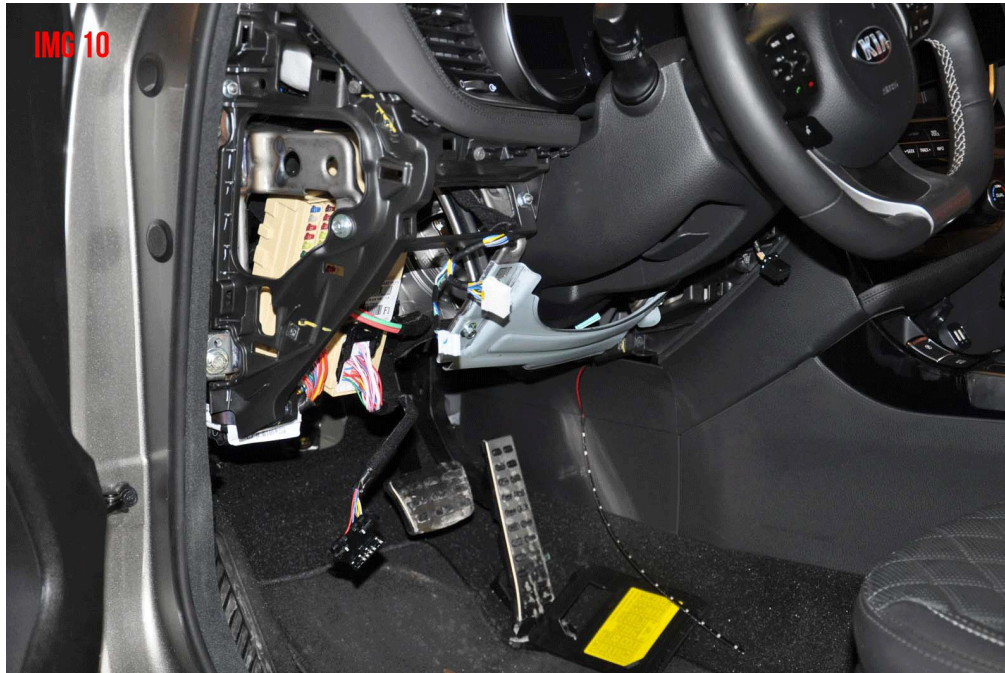
IMG 08, A and B are the two harnesses you will tap into on the passenger side : MF61 (A) and EM61 (B)



IMG 09 : Remove the side panel so you can remove the plastic panel under the steering wheel



IMG 10 : Plastic panel under steering wheel removed



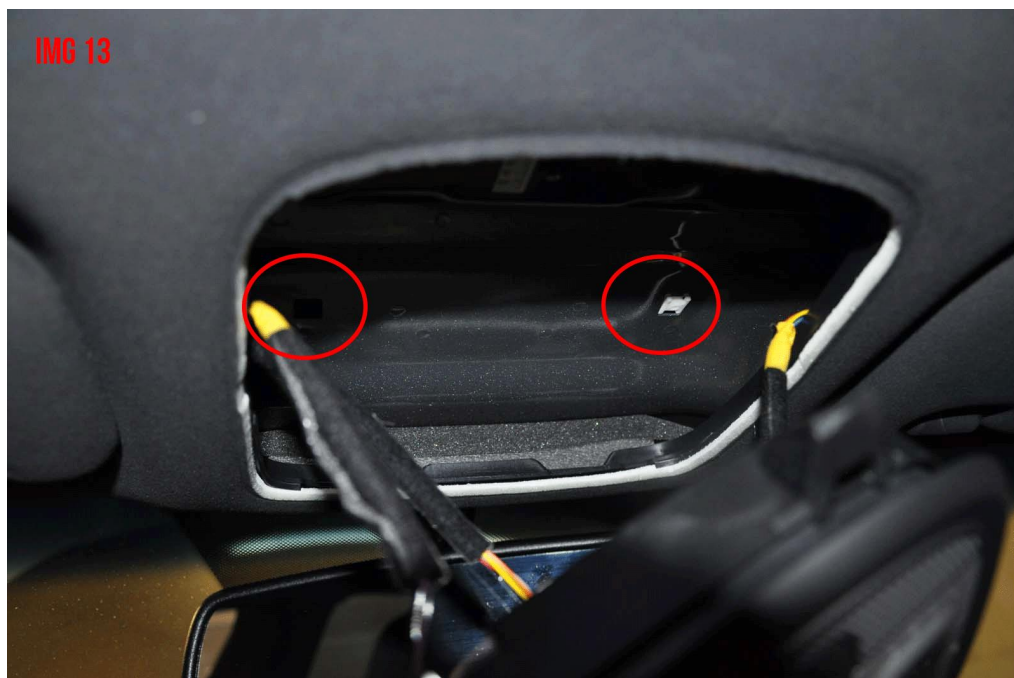
If you are not installing the sunroof function, or you do not have a sunroof, you can now skip to **PHASE 2**.

IMG 11, A - Remove these two screws to remove the sunroof switch/dome light assembly. Once they are removed, open the sunglass holder and pull down from the sunglass holder itself. (**IMG 12**)

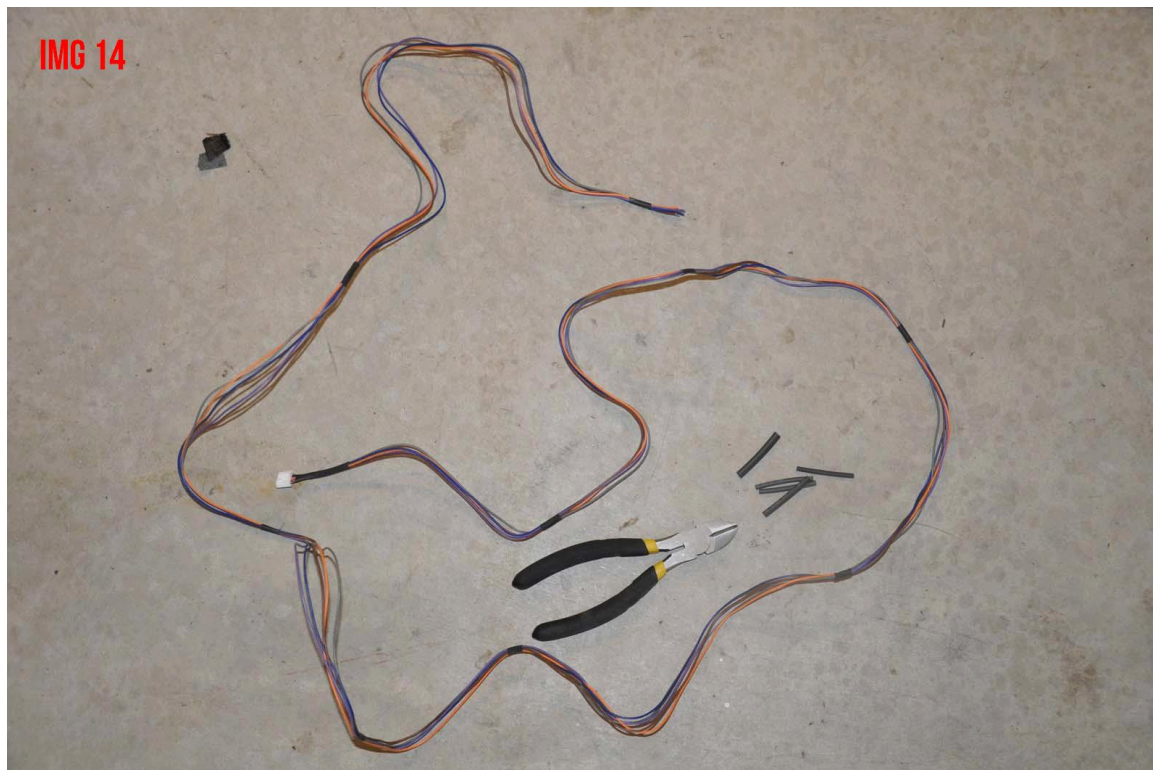




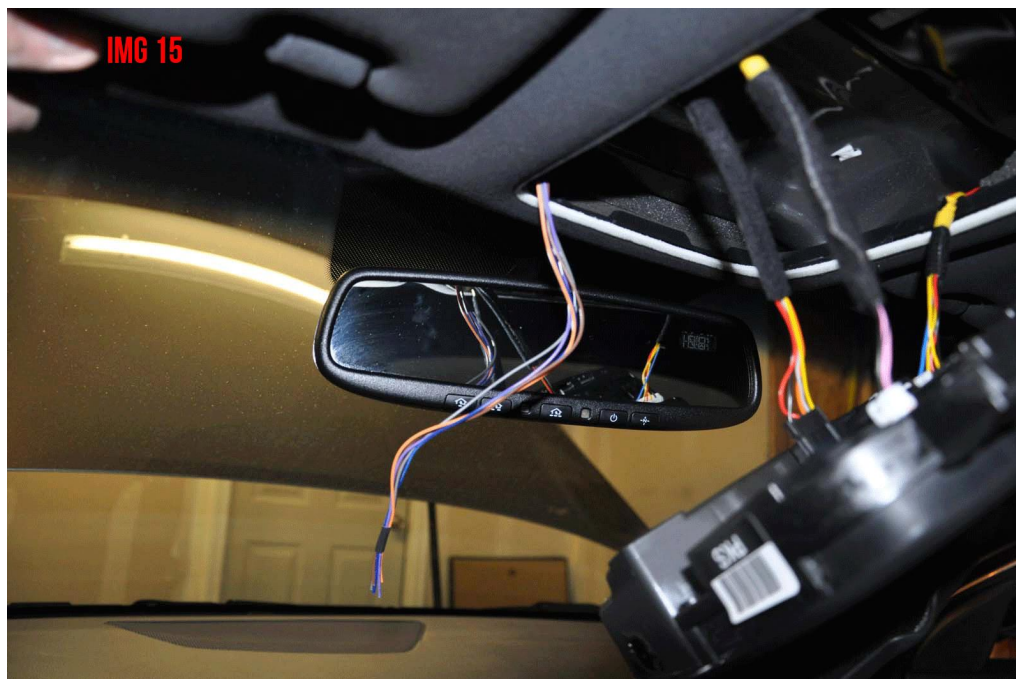
Be sure you keep track of the small white anchors in **IMG 13**. We had one come out and had to put it on the screw before putting the sunroof switch/map light assembly back in.

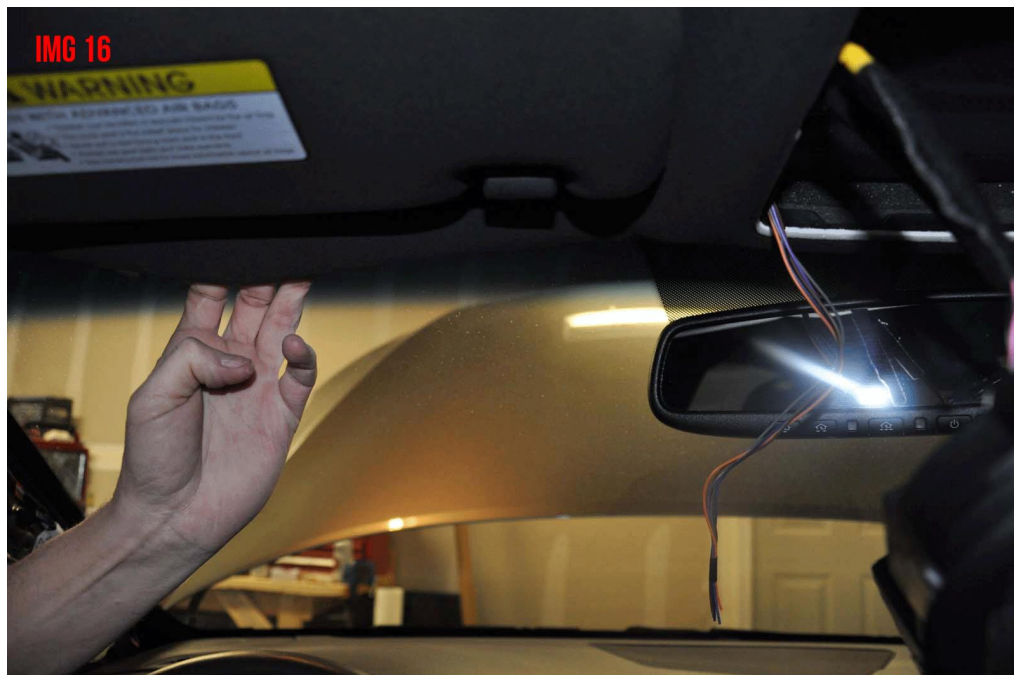


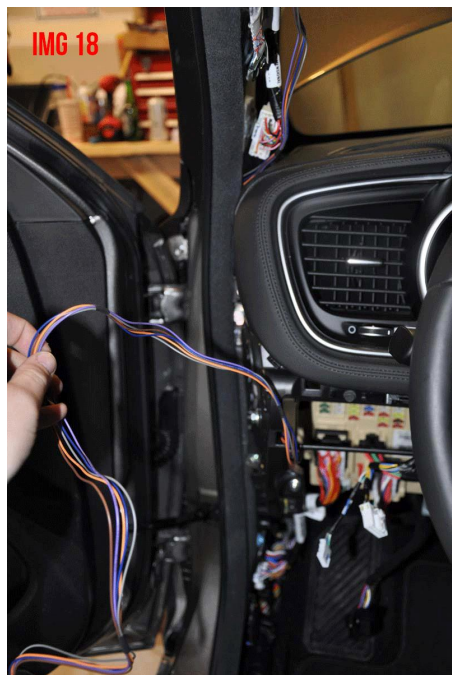
IMG 14 - putting small strips of heatshrink around the wire harness helps you run the wires a little easier.



IMG 15, IMG 16, IMG 17, IMG 18 - Running the wire harness. Start from the top down, let gravity do the work.

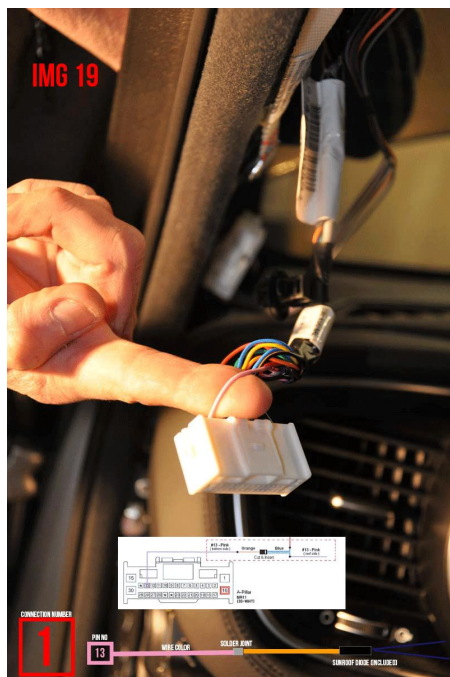


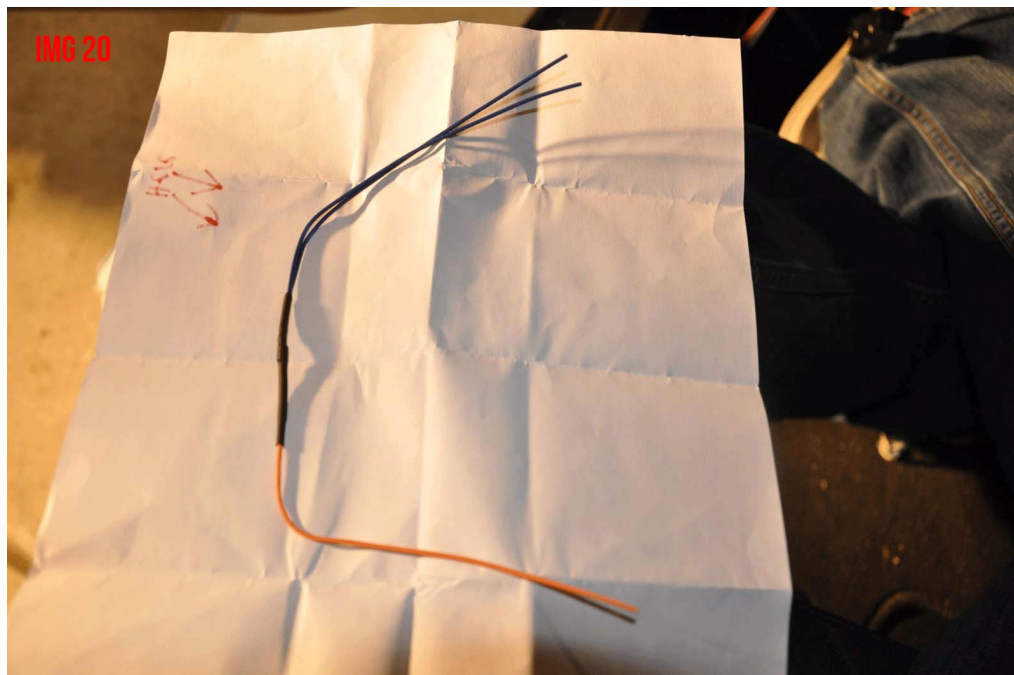


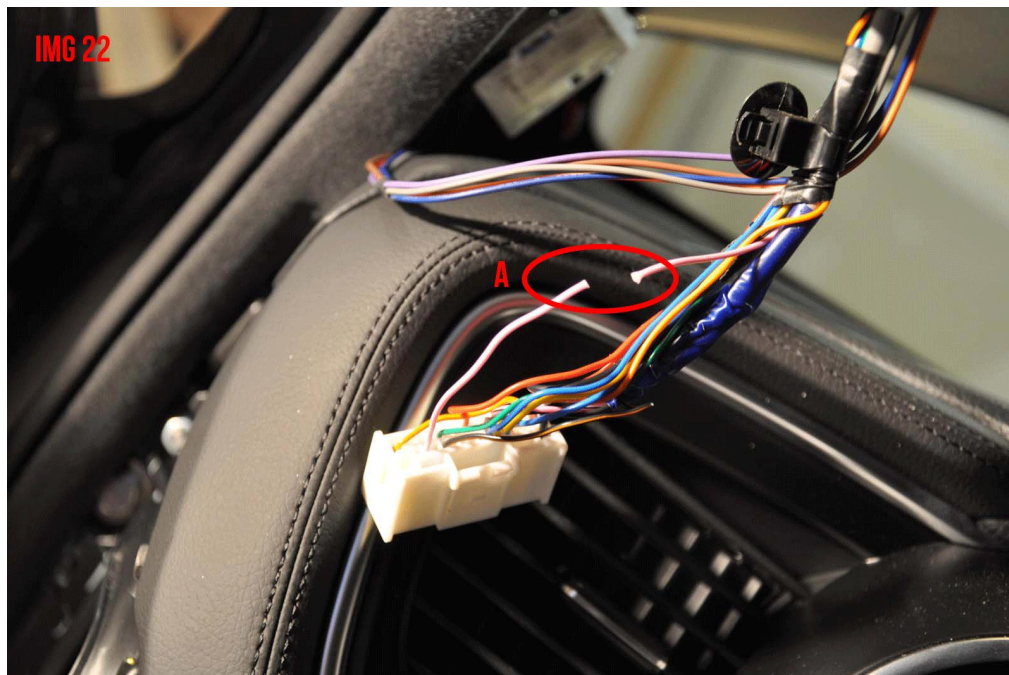


Time to cut your first wire!

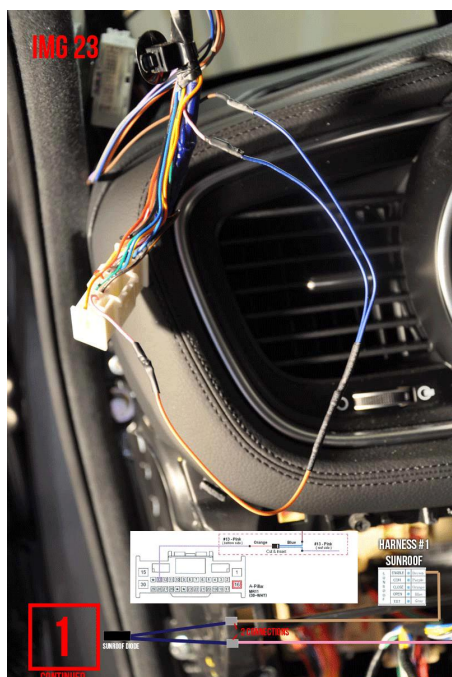
IMG 19 - Connection #1 will be in this pink wire. The sunroof diode (**IMG 20**) will go in between these wires (**IMG 22, A**), and the brown wire from the sunroof harness will be tapped in as well.



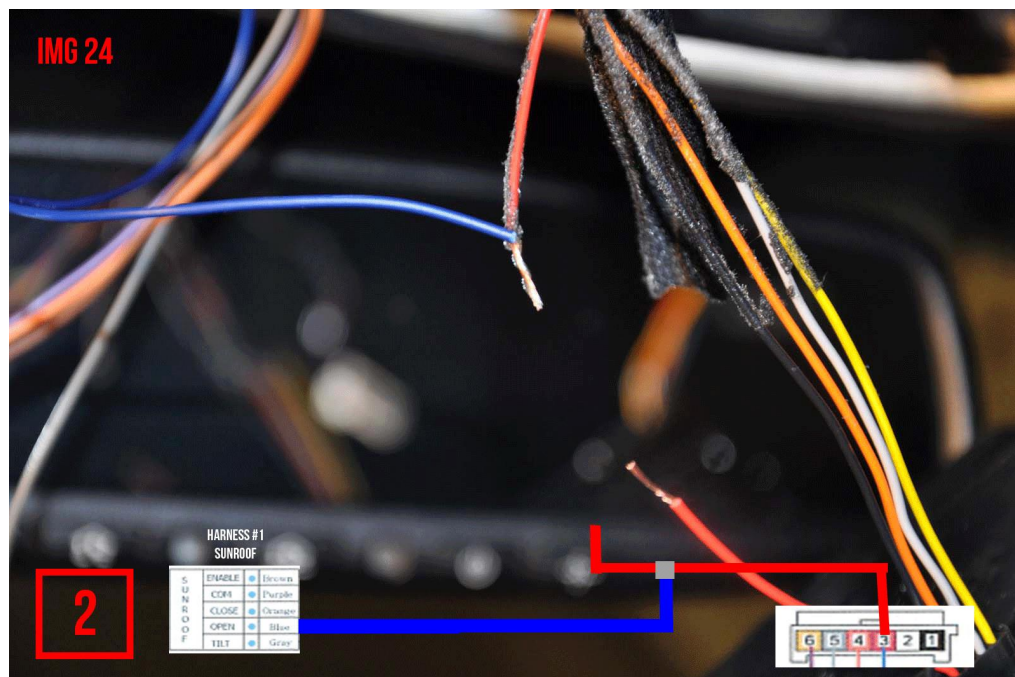




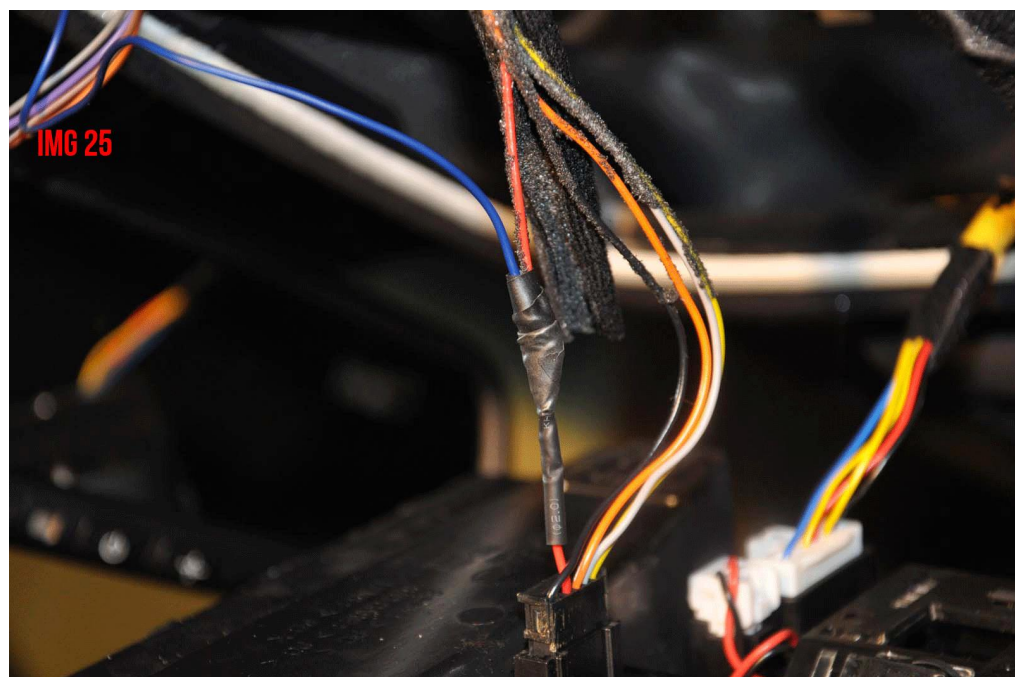
IMG 23 - Diode installed



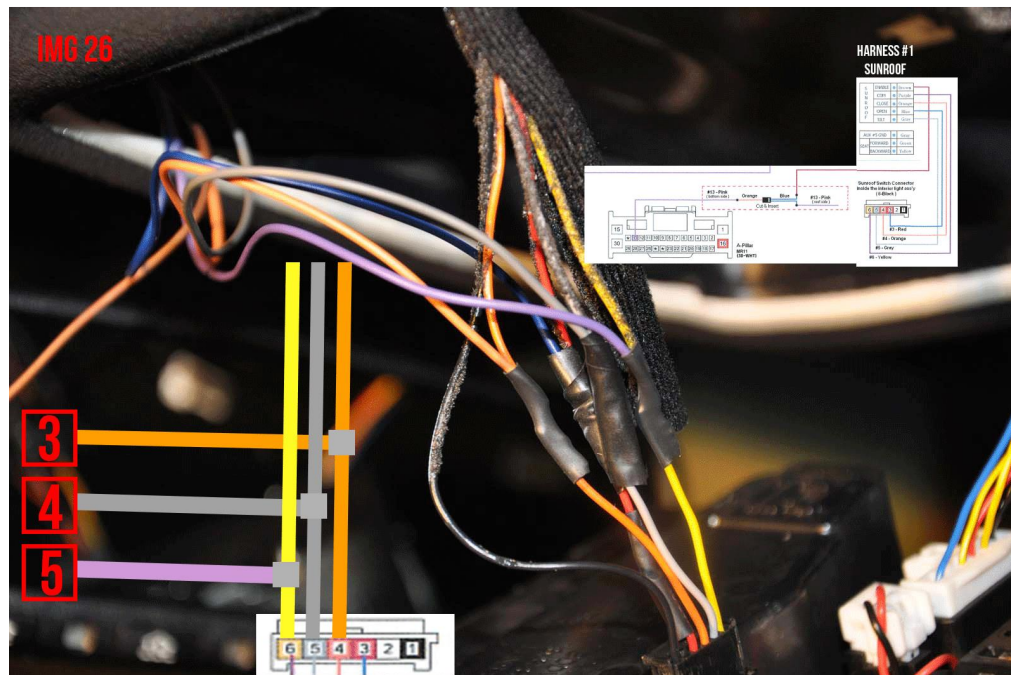
IMG 24 - Connection #2 - in the sunroof switch harness



IMG 25 - Connection #2 complete



IMG 26 - Connections #3, #4, and #5



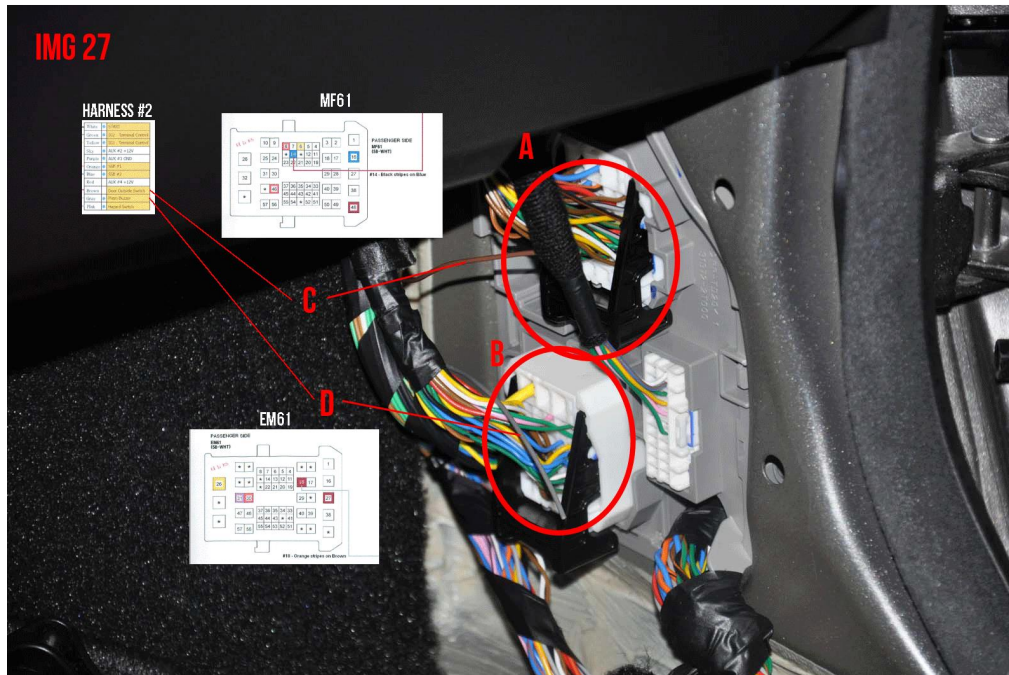
PHASE 2 : SYSTEM HARNESS (#2) - 11 wires, 8/11 used

IMG 27, A and B - The two harnesses you'll tap into first.

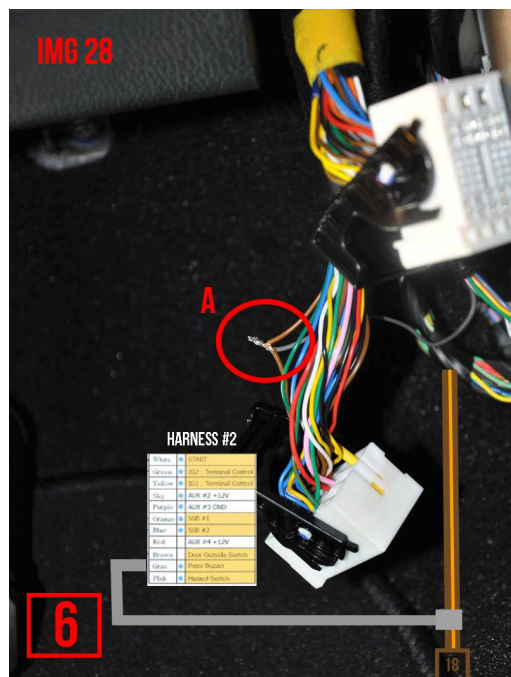
IMG 27, C is the brown wire from HARNESS #2. **IMG 27, D** is the gray wire from HARNESS #2.

You'll need to run these two wires over to the passenger side behind the center console. There will be just enough slack to leave the remaining wires on the drivers side to the left of the gas pedal.

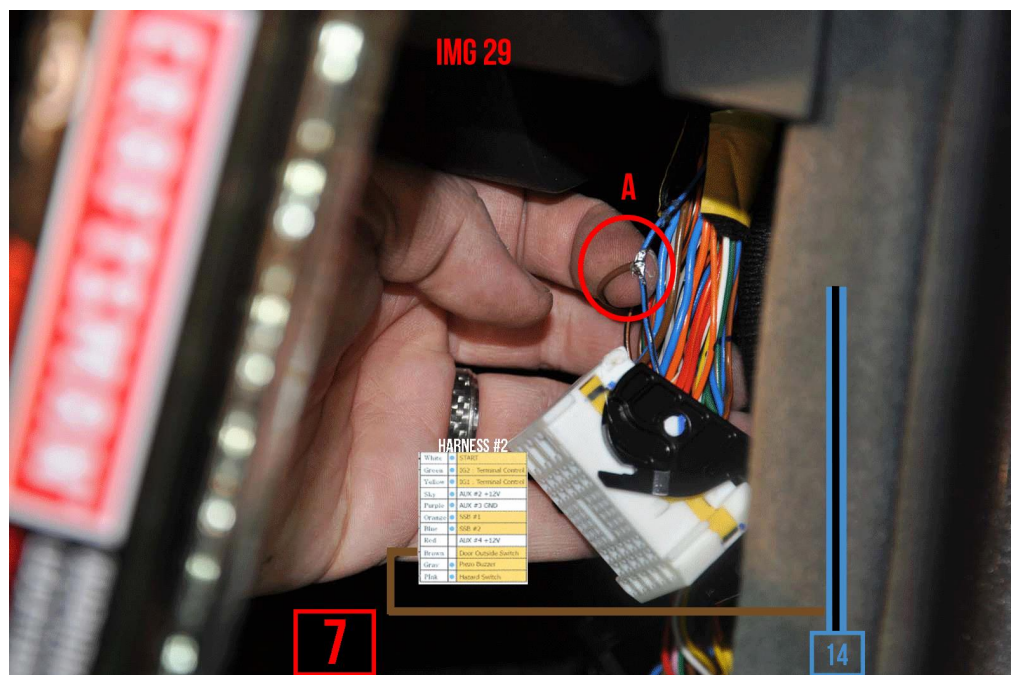
TIP: Unbend a coat hanger, tape the wires to the end, and feed them through behind the center console



IMG 28, A - Connection #6



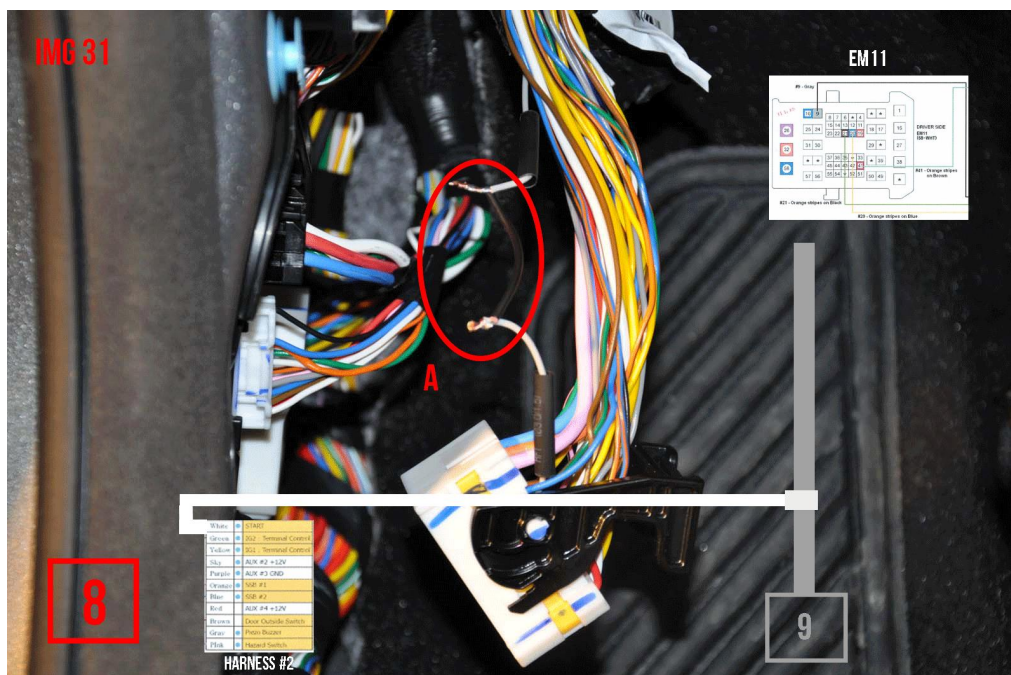
IMG 29, A - Connection #7



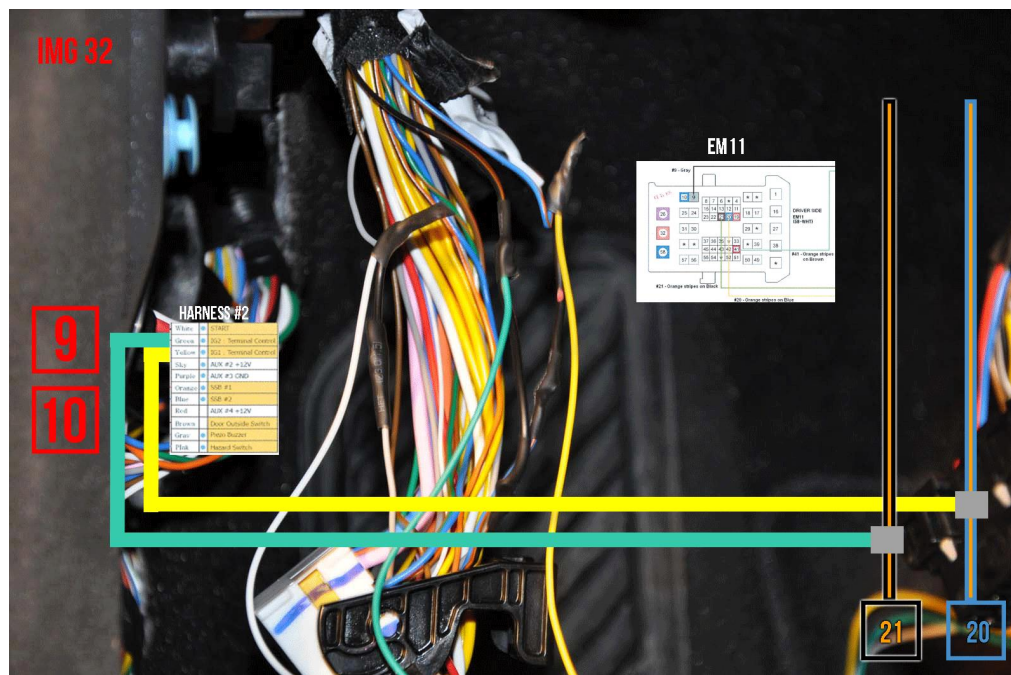
IMG 30, A - Simply cutting and twisting/soldering the wires wont work, as it will put a lot more tension on the wire. So we added small lengths of wire to relieve the tension. (**IMG 31, A**)



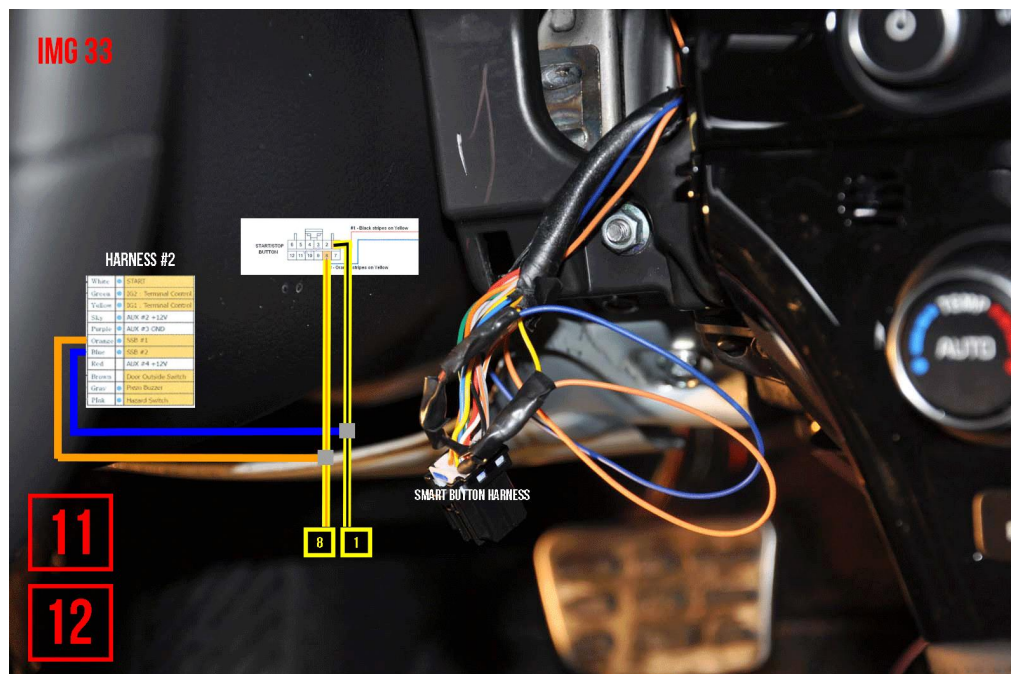
IMG 31, A Connection #8



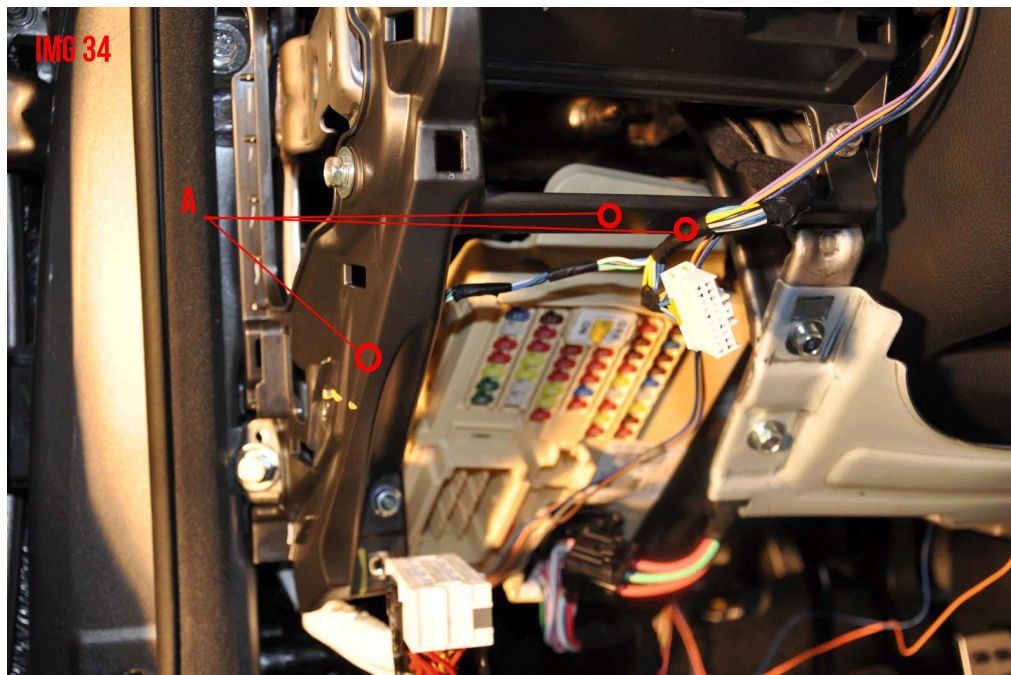
IMG 32 - Connections #9 and #10



IMG 33 - Connections #11 and #12 - These two tap into the smart button harness to the right of the steering wheel.

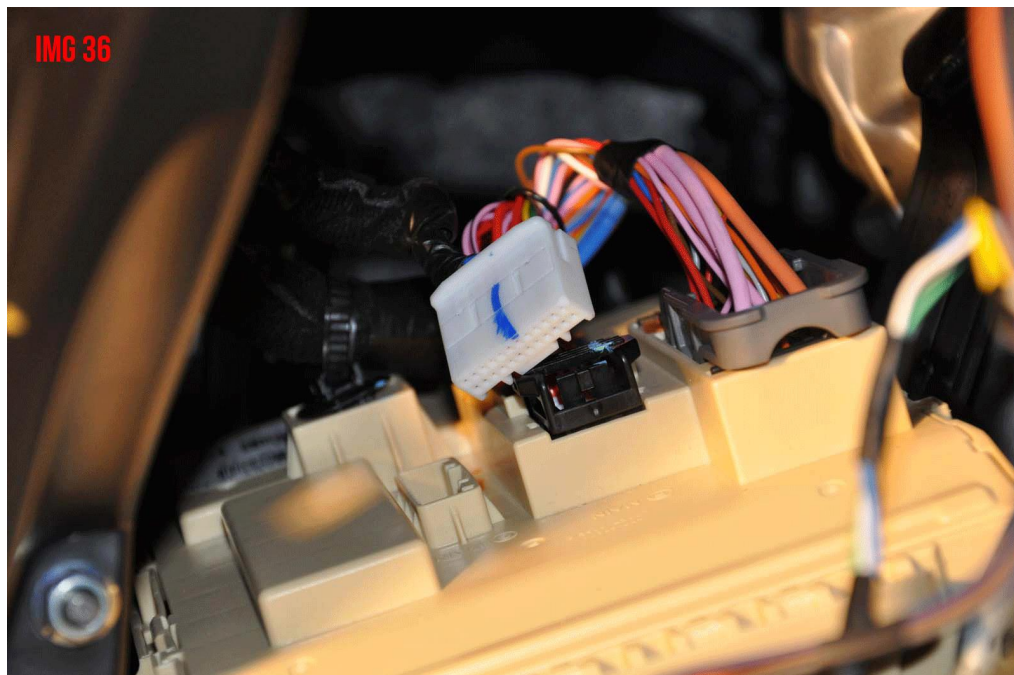


IMG 34 - Remove the internal fuse panel by removing the 3 x 10MM bolts shown **(A)** and pull it down to gain access to the back

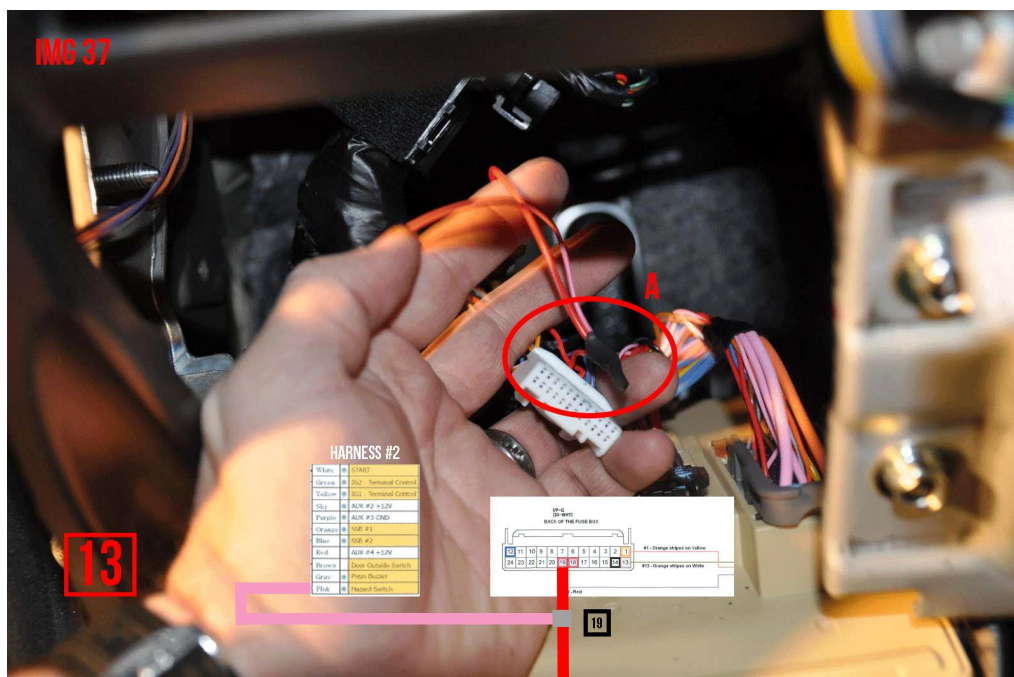


IMG 35, IMG 36 - This is the next harness you will tap into



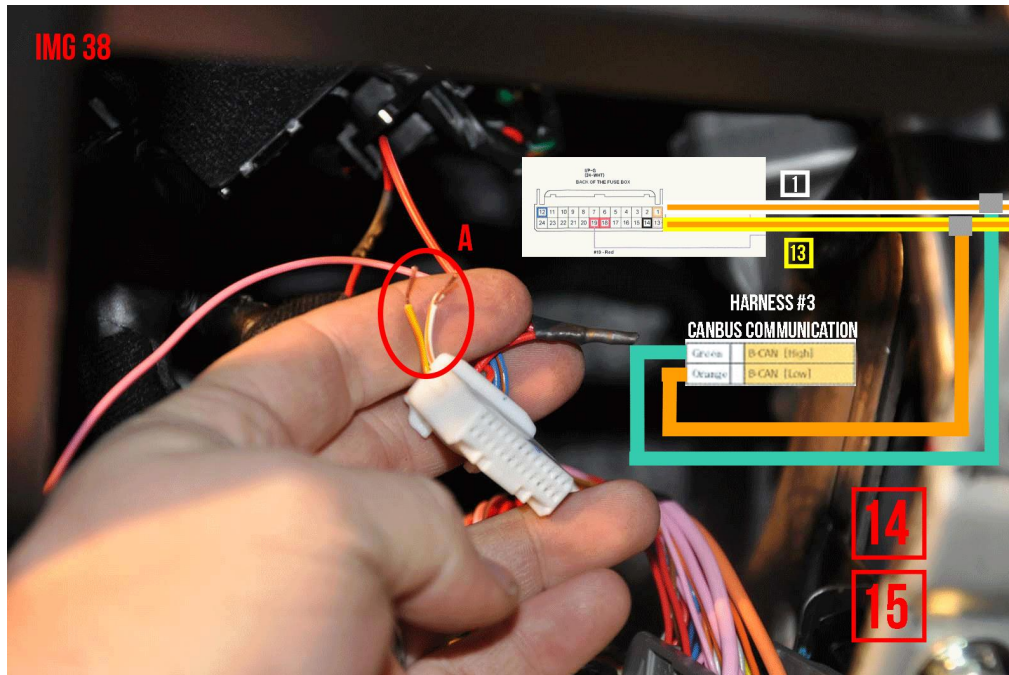


IMG 37 - Connection #13

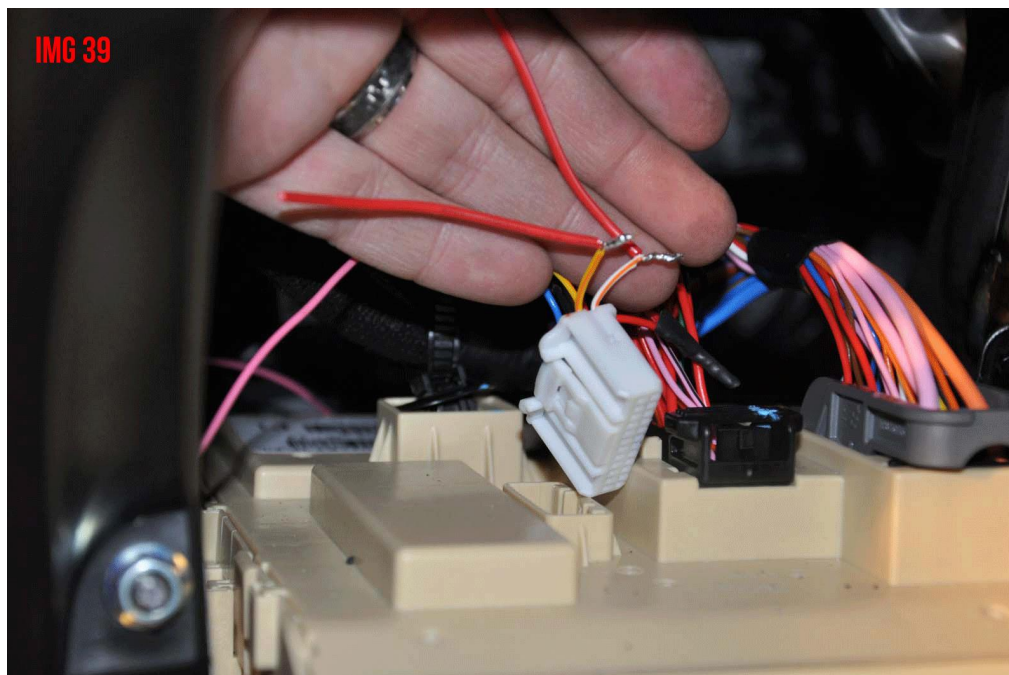


PHASE 3 - HARNESS #3 - CANBUS Communication - 2 wires, 2/2 used

IMG 38, A - Connections #14 and #15.

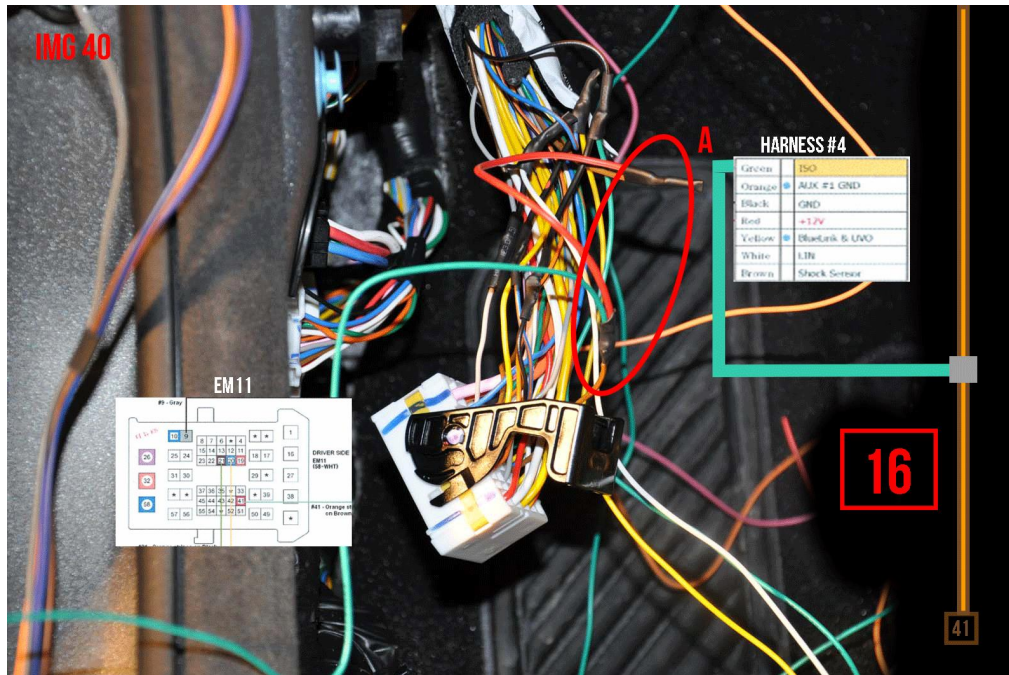


IMG 39 - Connections #14 and #15 with small wire extensions added

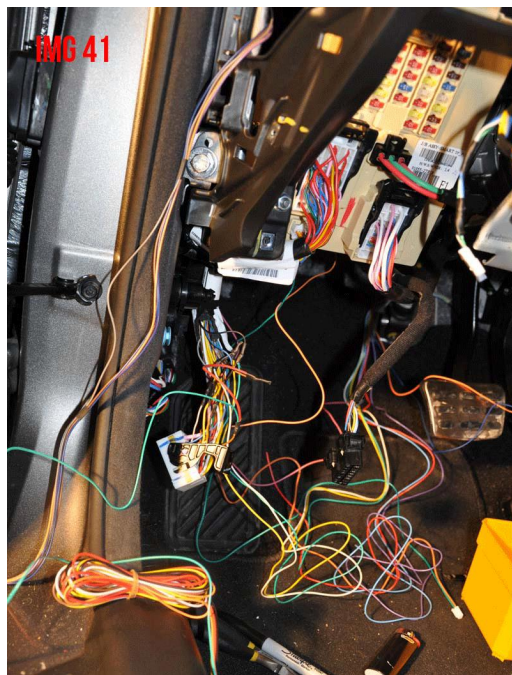


PHASE 4 - HARNESS #4 - 7 wires, 3/7 used

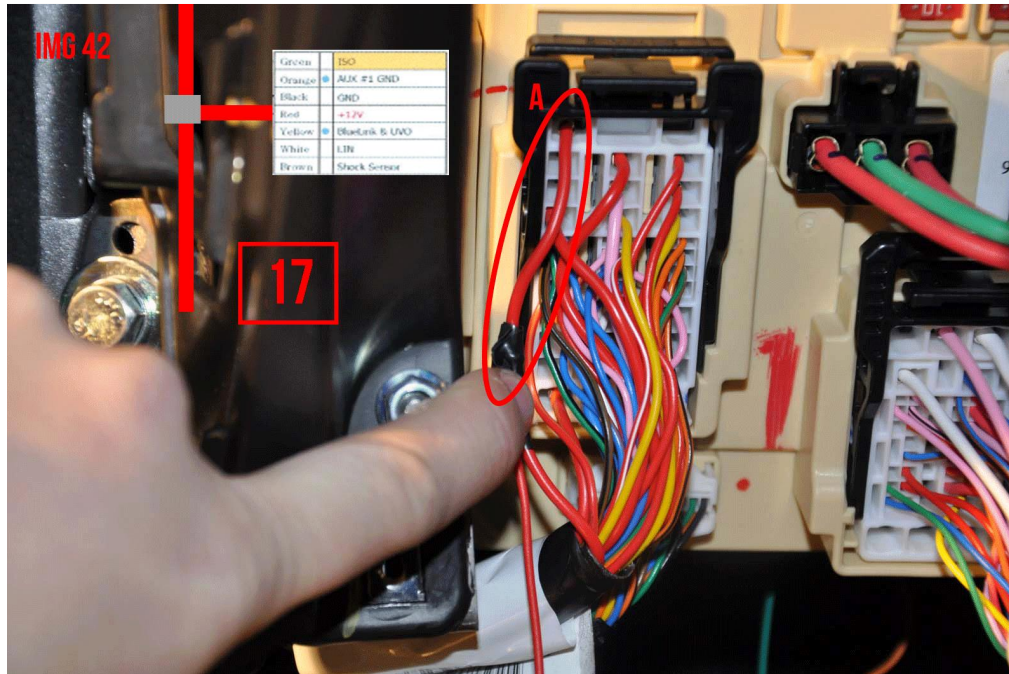
IMG 40, A - Connection #16. This is down in the driver's side harness (EM11)



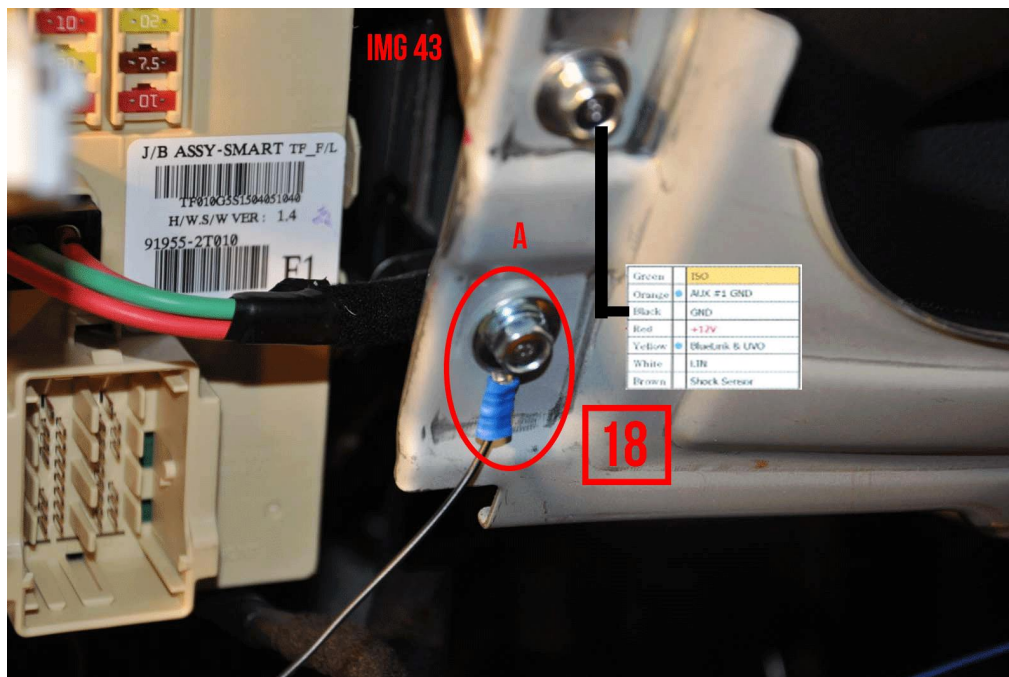
IMG 41 - It's starting to get crowded down there! Get ready for some cable management!



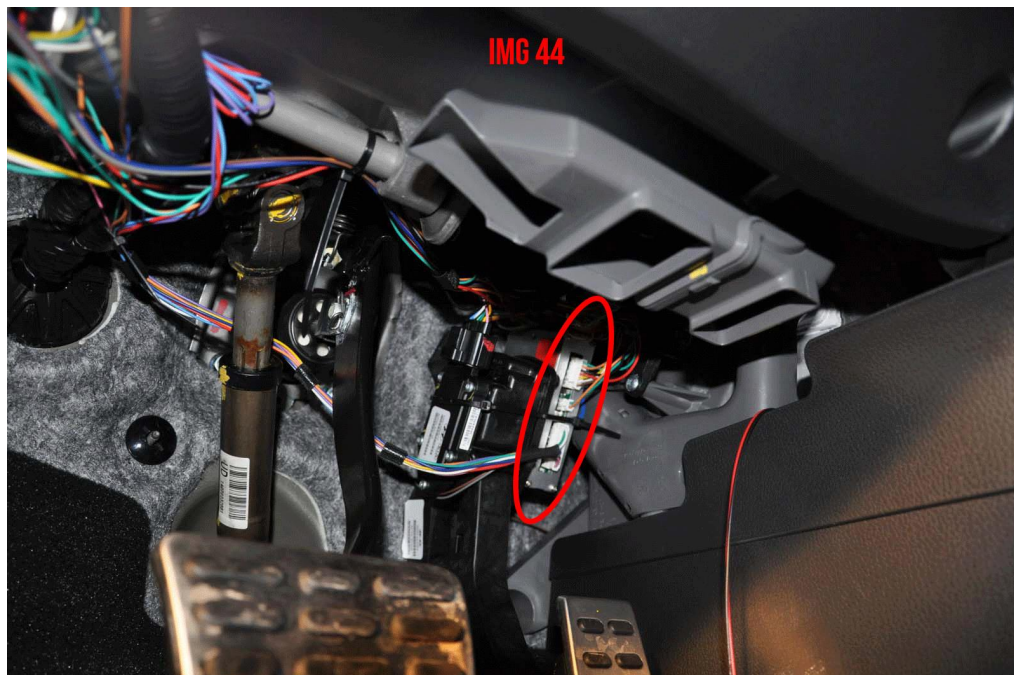
IMG 42, A - Connection #17, 12V power source



IMG 43, A - Connection #18, chassis ground



IMG 44 - Mounting location



We mounted the K5OS CCM to the right of the gas pedal, because we didn't want to remove the center console. In this location, there's just enough slack for the gray/brown wires in **IMG 27**, and you can easily reach the module under the dash if needed.