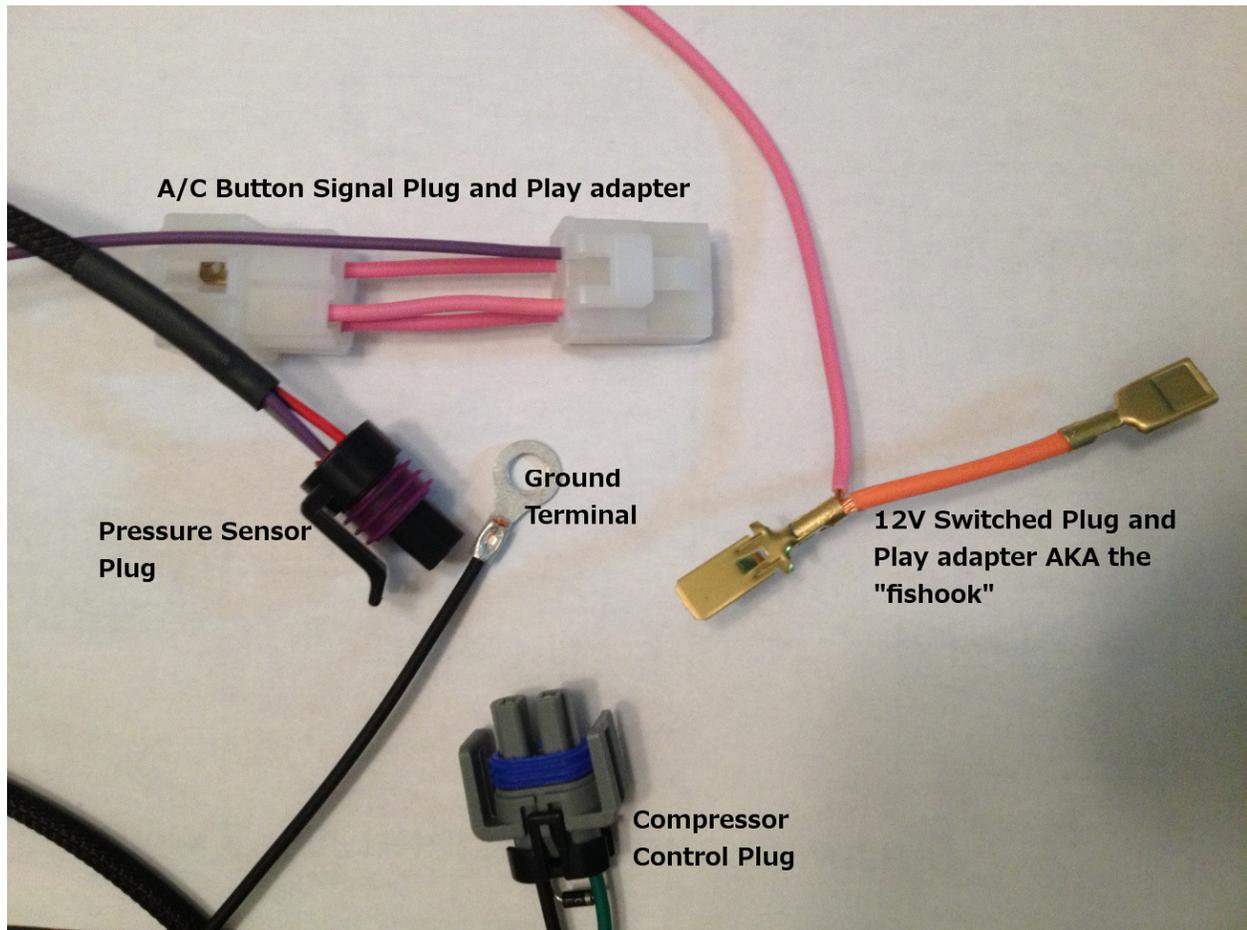


HalfSpec's LS1 Control / Wiring Kit Install



This installation tutorial is divided up into 3 parts. Part 1 covers the RX7 electronics side of the install. Part 2 covers the LS1 PCM side of the install. Part 3 covers the initial power up and testing.

Part 1 – RX7 and chassis wiring

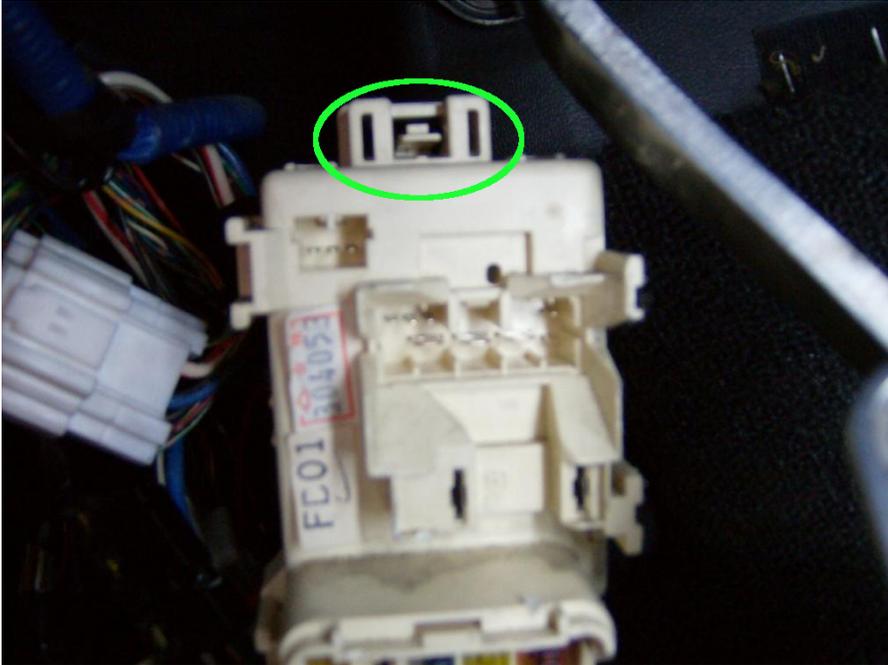


1. This kit is made to be mounted in the passenger side kickpanel area, so that's where it will be easiest to locate everything.
2. Prepare 1 of the 3 or 4 studs in that area to be used as a ground location. This means to remove any paint down to the bare metal and any dirt away from the base of the stud.
3. Using the 6mm lock nut included in your kit, bolt the ground terminal to this prepared stud. See the pic below:

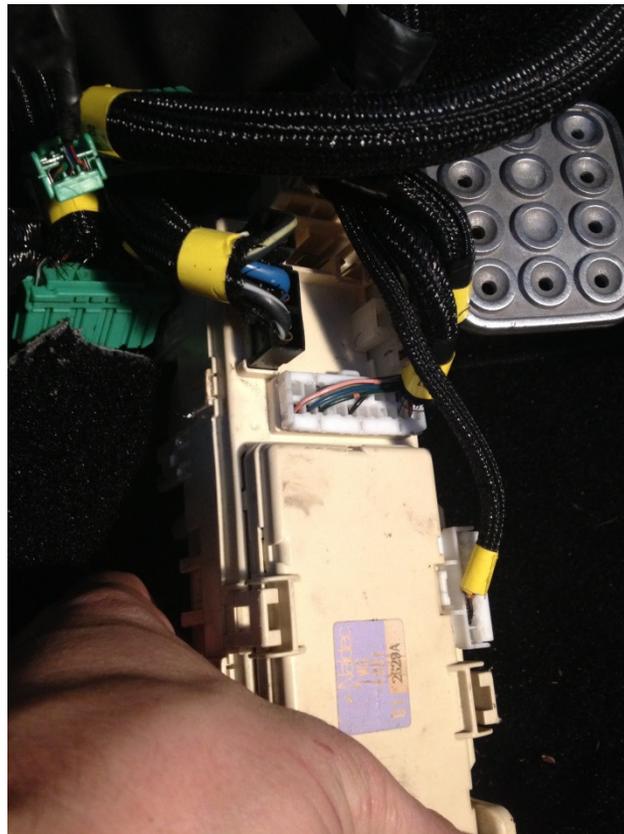


Note – This stud has NOT been prepared properly. Please make sure the ground terminal makes good contact with bare metal at the base of the stud.

4. **Remove the 25A fuse from the 12V switched wire.**
5. After removing the fuse, route the 12V Switched plug from the passenger side to the driver's kick panel. I find that routing along the firewall and over the transmission tunnel to be the most direct / clean route.
6. Unplug, unbolt, and unclip the driver's side fuse box. Tip #1 – Remove your kick panel and dead pedal. Tip #2 the fuse box has one bolt towards the floor board and one VERY hard to reach clip at the top (See pic below). Please be careful not to break this clip. It is possible to see the clip with some finagling, but it IS difficult and probably one of the more frustrating parts of the job.



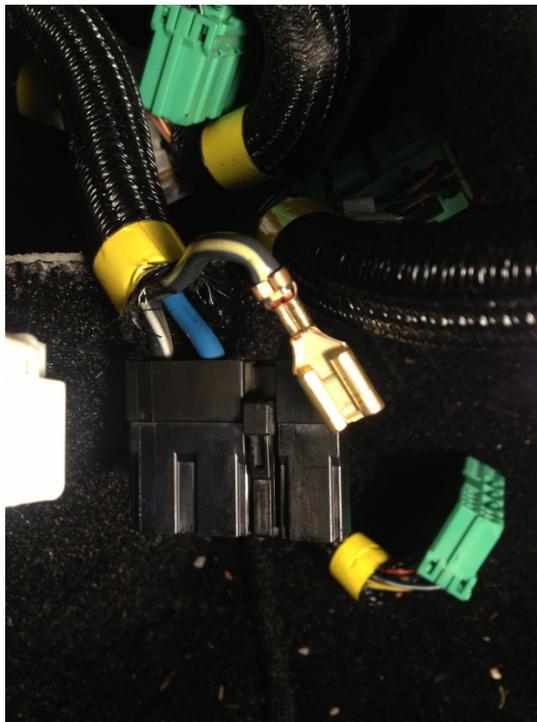
7. Flip the fuse box over and look for 3 position black connector with three large wires colored Blue, Black/White, and Black/Yellow.



8. Unplug the black connector and use a small flat head screw driver to de-pin the Black/Yellow wire.



9. The pin should come out looking like this:

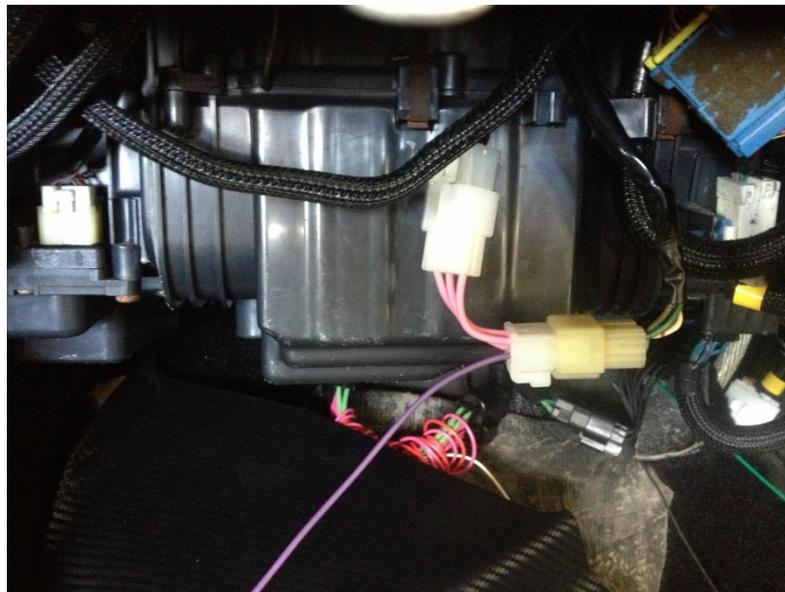


10. Slide the included heat shrink up and over the female terminal above.

11. Install the Male side of the 12V Switched Plug onto the original Female terminal above, then heat the shrink-wrap over the connection (not shown).
12. Plug the Female side of the 12V switched Plug into the black connector like this:



13. Push the connector into the black connector until it clicks.
14. Reassemble your fuse box and replace any panels you removed to access it.
15. From the passenger kick panel, plug the A/C Signal Plug and Play adapter between the Evaporator's Dash Wiring and its Thermoswitch:

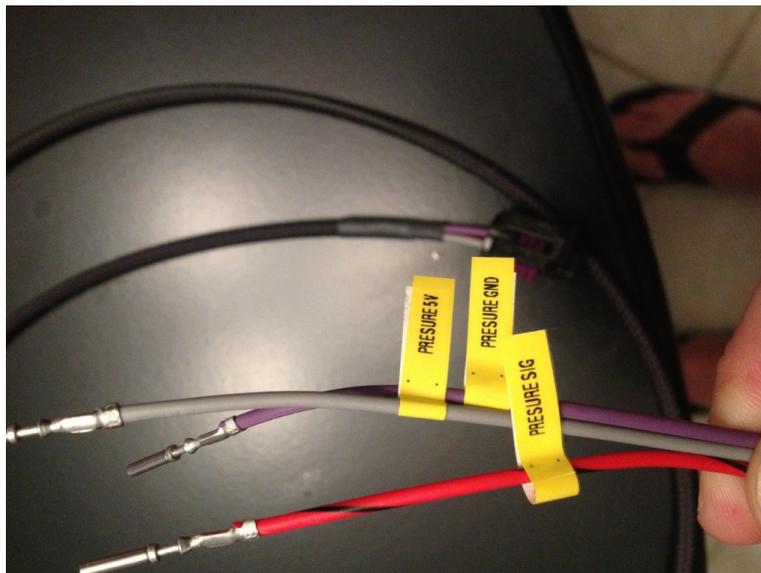


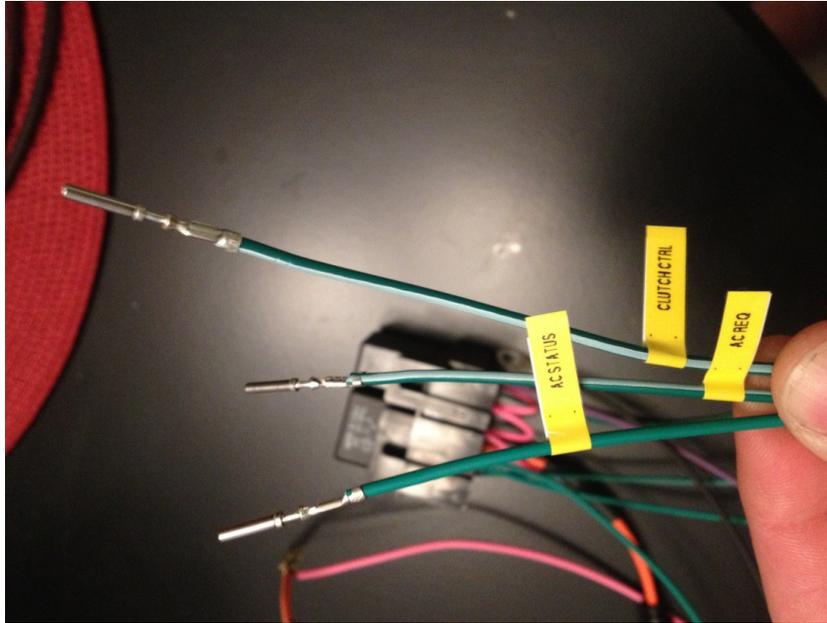
16. From the passenger kick panel, route the compressor control plug to the compressor. I have tailored the wire length of this connector to be able to go out of the airbag harness grommet and up and over the inside of the fender to right in front of the wheel where it can easily make its way to the compressor. Kind of like the picture above but on the passenger side:



17. The method above does require the temporary removal of your fender.
18. Another method would be to route through the engine harness grommet or drill a new hole and install a new grommet to pass through.
19. Plug in the compressor control plug.

Part 2 – PCM connectors





1. This controller / wiring kit requires 6 connections to the LS1 PCM and may require one splice. What location in the PCM plugs they're installed to depends on the year of your wiring and ECU.
2. For 98 fbody PCMs these are the installation instructions:
 - a. C2 Red PCM Connector Pin #14 = ACSTATUS Wire (Dark Green)
 - b. C2 Red PCM Connector Pin # 39 = CLUTCHCTRL Wire (Dark Green / White)
 - c. C2 Red PCM Connector Pin # 47 = ACREQ Wire (Dark Green / White)
 - d. C2 Red PCM Connector Pin # 63 = PRESSUREGND (Purple)
 - e. C1 Blue PCM Connector Pin #7 = PRESSURESIG (Red / Black)
 - f. C1 Blue PCM Connector Pin #66 = PRESSURE5V (Gray)
3. For 99+ fbody PCMs these are the installation instructions:
 - a. C2 Red PCM Connector Pin # 18 = ACSTATUS Wire (Dark Green)
 - b. C2 Red PCM Connector Pin #43 = CLUTCHCTRL Wire (Dark Green / White)
 - c. C2 Red PCM Connector Pin #17 = ACREQ Wire (Dark Green / White)
 - d. C2 Red PCM Connector Pin #14 = PRESSURESIG (Red / Black)
 - e. C2 Red PCM Connector Pin #57 = PRESSUREGND (Purple)**
 - f. C1 Blue PCM Connector Pin #45 = PRESSURE5V (Gray)

**Note – For 99+ fbody ECU's the pressure sensor's ground (purple wire) is connected to the PCM's ground through pin #57. Unfortunately this ground is also shared by the Intake Air Temperature sensor. The solution is either to tap into the existing wire on pin 57 OR to de-pin the existing wire, plug in the new pressure sensor wire and take the IAT wire and tap into the

4. From the passenger kick panel, route the pressure sensor plug to the drier in the engine bay. I have tailored the wire length of this connector to be able to go out of the airbag harness grommet and up and over the inside of the fender to right in front of the wheel where it can easily make its way to the compressor. See pic of compressor control plug above.

Part 3 – Powering up and testing

1. Plug the 25A fuse into the 12V Switched wire's fuse holder which is near the relays in the passenger kick panel area.
1. Turn your key to the ON position, turn on your fans, then press the A/C button. You should hear one of the relay's click or at least feel it click if you touch it while toggling the A/C switch. If it does and your PCM wires are properly connected, you're done!
If not, check the unit's 25A fuse. If the fuse is intact, check your ground terminal. If needed clean the contact point again. If that fails, move the ground to another location. If it still doesn't click when pressing the A/C switch please feel free to contact me via halfspec@gmail.com

Otherwise, you should now be able to enjoy the full benefits of having a PCM controlled A/C system.

Thank you for your business

Lane