



INSTALLATION INSTRUCTIONS

17-0031 DIY PUMP HARNESS

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DOCUMENT: 19-0066

1. The DIY Pump Harness was designed for one fuel pump. However, several pumps can be assembled if multiple DIY harnesses were purchased.

The following tools will be required for assembly: wire cutters, wire stripper, crimp tool (shown), pick, and heat gun. See the diagrams on the last couple of pages for reference. Also, see the specific instructions for the purchased fuel pump(s) wire colors (+/-).

First, be sure to disconnect the battery.



2. The large red wire located in the center of the relay flying lead harness (terminal 87A) will not be used.

To remove this pin, insert a pick into the socket from the front side.

Release the terminal from the internal lock and simultaneously push the wire through the front of the connector, as shown.

Discard the wire terminal.

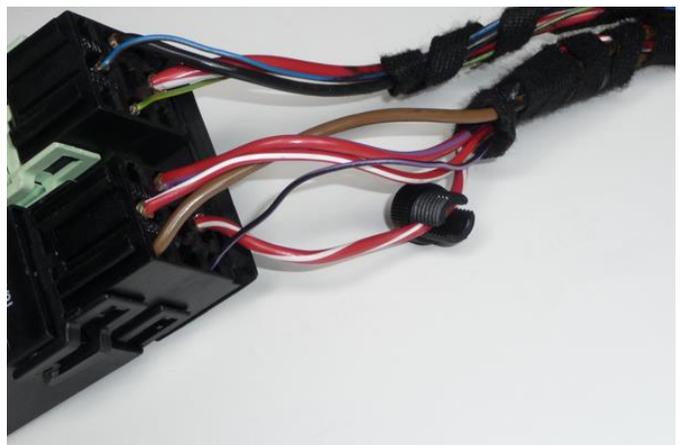


3. It is recommended to connect the "TRIGGER" wire to the ECU fuel pump relay output which has a fuel pump priming attribute and a safety feature which disables the output typically when engine speed is 0 RPM.

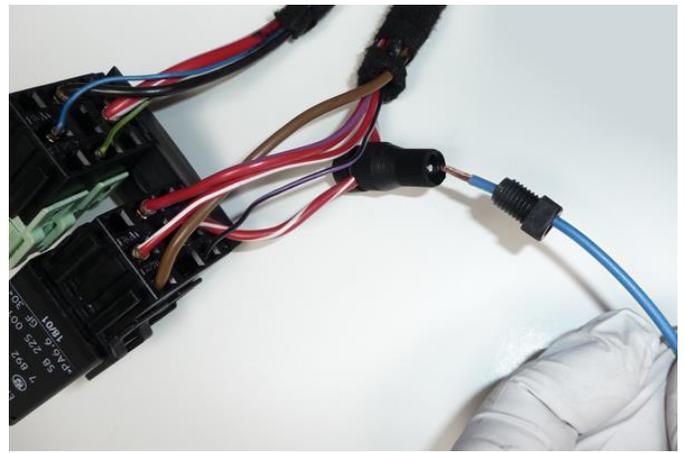
For fuel surge tank pumps, it is recommended to connect the "TRIGGER" wire to the primary fuel pump relay wire. This will enable all fuel pumps to work simultaneously and protect from a potential fire hazard.

NOTE: Using the diagrams below, the assumption is that the "TRIGGER" is 12V, which is common. If the "TRIGGER" wire is ground, simply connect the opposite pole of the relay coil (85 or 86) to 12V rather than ground.

For solderless butt connectors, see Step 6. If using the Posi-Tap connector, unscrew both ends. Insert the OEM trigger wire into the slotted end, as shown.



4. Screw the center section back on making sure the OEM wire gets pierced.
Next, strip the blue insulation of the relay wire back to expose 3/8" of copper.
Slide the opposite end of the Posi-Tap connector over the blue wire, as shown.
Insert the blue wire through the center section of the Posi-Tap connector.



5. Screw the Posi-Tap connector together and give the wire a quick tug to make sure it seated properly.

For more information, there are detailed instructional videos on the internet on how to assemble Posi-Tap wire connectors.

Note: For multiple fuel pump setups, the relay trigger wire can be used from the same source or independently controlled depending on the vehicle requirements.



6. To properly use crimpless solder butt connectors, strip the wire insulation back and insert a wire through one side and then twist the 2 wires together. Next, center the connector on the bare wires and use a heat gun to melt the solder. Be careful with the surrounding area as the internal solder can take awhile to melt. Finally, verify the connection is solid by gently tugging.

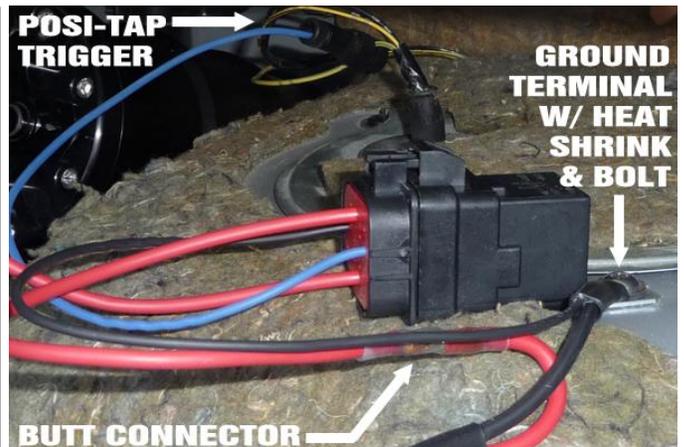
The 12V ring terminal should be connected to the (+) battery terminal. If the battery is not accessible, connect to a high current 12VDC source. This is the main power wire that should be fused (20A included) using the included in-line fuse holder.



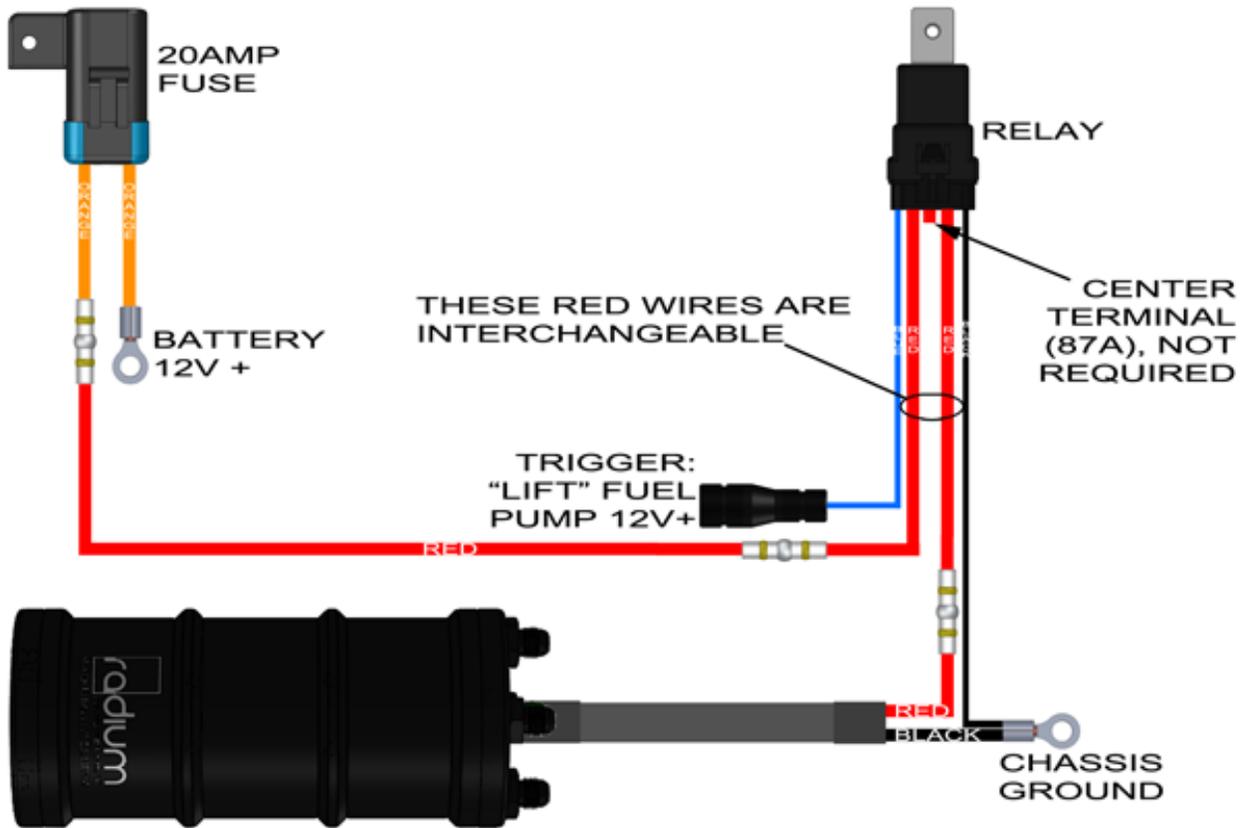
7. Connect the "GROUND" ring terminal to a clean bare metal chassis surface.

Cover all wires with a wire loom sleeve (not included) to protect from abrasion. Safely secure all wires away from moving parts and hot engine components.

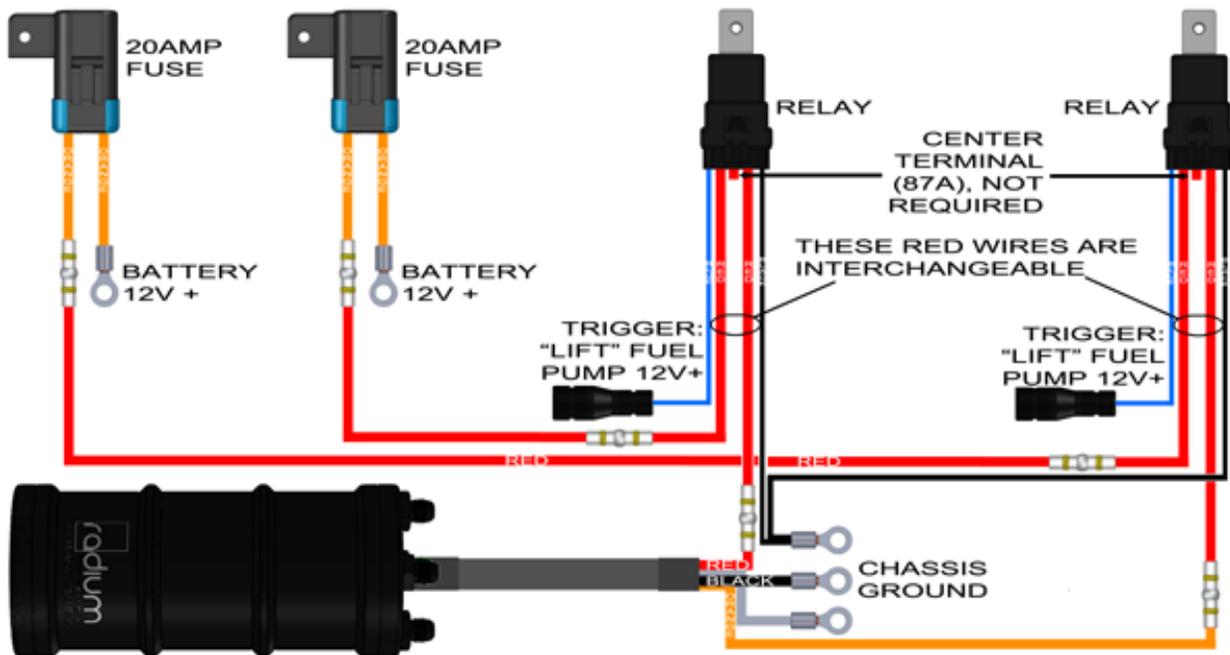
Reconnect the battery. Follow instructions included with the pump or fuel surge tank for details on how to prime the system.



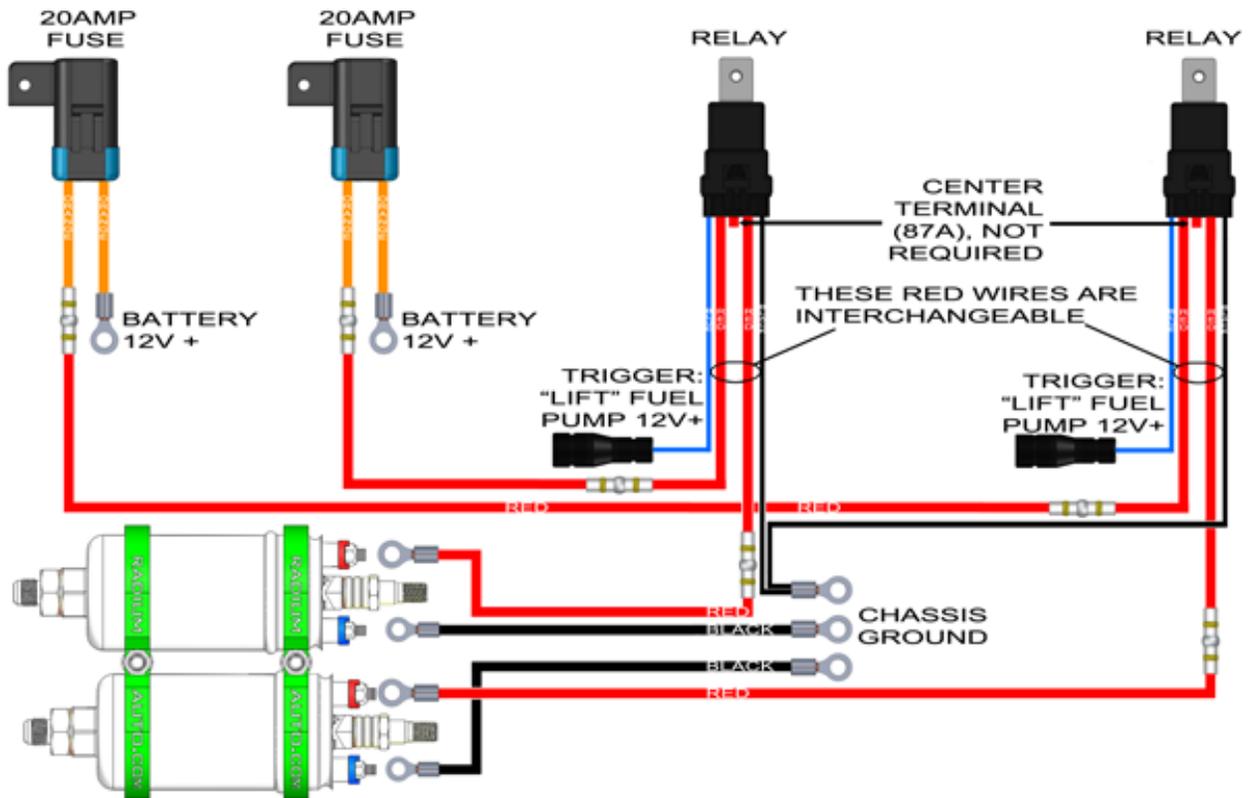
Fuel Surge Tank with Single Internal Pump Example



Fuel Surge Tank with Dual Internal Pumps Example



Fuel Surge Tank with Dual External Bosch Pump Example



Fuel Pump Hanger Example

