

PAINLESS[®]

PERFORMANCE PRODUCTS



Trail Rocker Relay Center Installation Instructions

**2007-2018 Jeep Wrangler JK Trail Rocker
For Installing Painless Part Numbers: 57005
Manual #90582**

Painless Performance Products recommends you, the installer, read this installation manual from front to back before installing this harness.



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If you have any questions concerning the installation of this product, feel free to call Painless Performance Products' tech line at 1-800-423-9696. Calls are answered from 8am to 5pm central time, Monday thru Thursday, 8am-4:30pm Friday, except holidays.

Here we have provided you with accurate instructions for the installation of this product. However, if you have comments/suggestions concerning these instructions, please call or email us (our contact information can be found at the top of this page or online at www.painlessperformance.com). We sincerely appreciate your business.

Painless Performance Products, LLC shall in no event be liable in contract or tort (including negligence) for special, indirect, incidental, or consequential damages, such as but not limited to, loss of property, or any other damages, costs or expenses which might be claimed as the result of the use or failure of the goods sold hereby, except only the cost of repair or replacement.

Should you damage or lose part of your manual, a full color copy of these instructions can be found online at www.painlessperformance.com

Installation Manual: **90582**

2nd Edition: February, 2019

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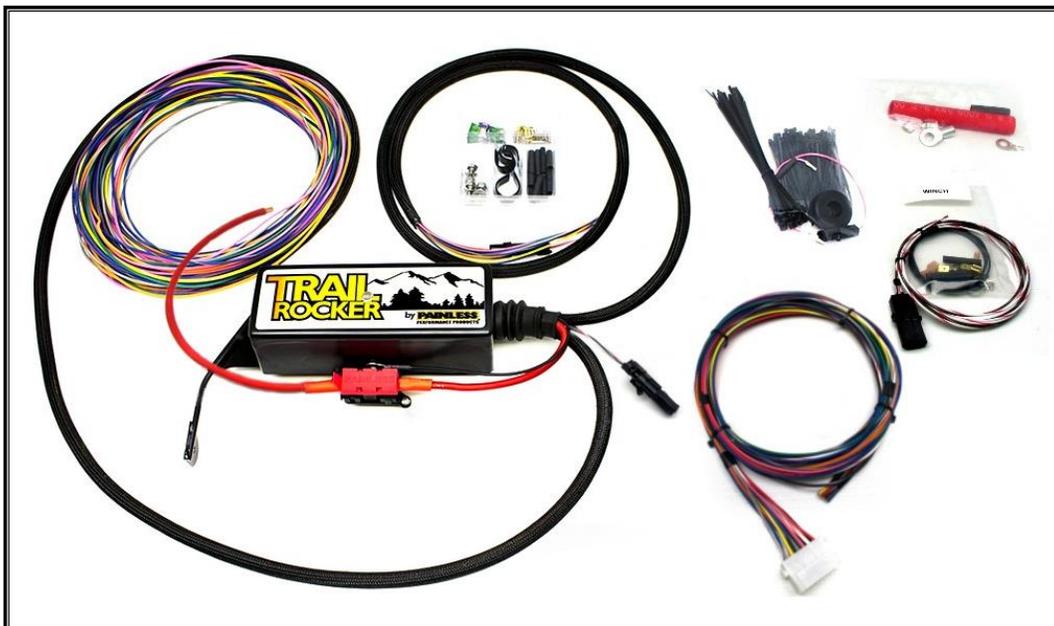
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CONTENTS OF THE PAINLESS KIT

Refer to the list and **Contents Figure** (below) to take inventory. See that you have everything you're intended to have in this kit. If you find that anything is missing or damaged, please contact the dealer where you obtained the kit or Painless Performance at (800) 423-9696.

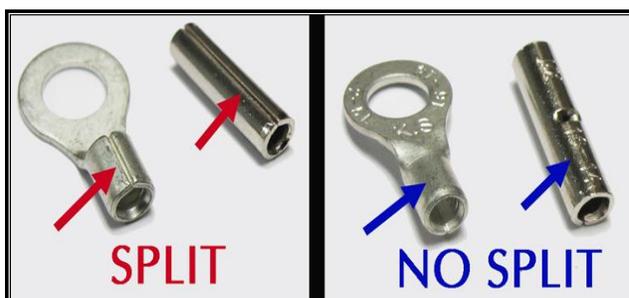
The Painless Trail Rocker Kit 57005 should contain the following:

- Fuse/Relay Center pre-installed to powder coated bracket.
- Switch Control pigtail
- Ignition Switch pigtail w/ weather-pack connector, (1) rubber grommet, and zip-ties
- Winch Pigtail and installation kit
- **Parts Kits:** (2) 1" Adel clamps, (1) ¾" Adel clamp, (3) ¼"-20 x ¾" stainless bolts, (3) ¼" flat washers, (3) ¼" nylon locking nuts, (10) un-insulated butt connectors, (12) pre-cut heat-shrink, (8) insulated wire caps, (10) 16-14 ga. spade terminals, (10) 22-18 ga. spade terminals, (3) ¼" piggyback adapters, (1) M6-1.0 nut, (1) M6 lock washer, (1) M6 flat washer, (4) 30 amp ATO fuses, and (1) 200 amp MIDI fuse
- **Power and Ground Terminal Kit:** (1) pre-cut ¼" black heat shrink, (4") pre-cut ½" red heat shrink, (1) 16-14 ga. non-insulated ring terminal, (1) 6 ga. ¼" ring terminal, and (1) 6 ga. ⅝" ring terminal
- This manual (90582)



SMALL PARTS

Included with the Painless harness are parts kits containing miscellaneous terminals, fuses, screws, and nuts. Many of the terminals are non-insulated and will require heat shrink to be applied after the terminal has been properly crimped. Heat shrink has been supplied. These non-insulated terminals allow you to keep a cleaner, more traditional look. When crimping these terminals, take notice to the split in the terminal. Make sure the smooth side of the jaw on the crimper goes towards this split.



TOOLS NEEDED

This installation primarily requires only basic hand tools that may include, but are not limited to:

1. Wrench sets SAE and Metric
2. Ratchet sets SAE and Metric
 - a. 1/4" Drive w/ an extension is recommended for some tight areas of the install.
3. Screwdrivers:
 - a. (2) #2 Standard Length and Stubby Phillips Head
 - b. #2 Flat (slot) Head
 - c. #0 "Jewelers" Flat (slot) Head
4. Inch/Pound Torque Wrench
5. Diagonal Pliers or "dikes"
6. Wire Cutter/ 18-10 ga. Stripper
7. Hand Crimpers
8. Cable Cutters
9. Cable Crimping Tool
10. Hammer



In addition to these basic hand tools, you may need the following:

Volt/Ohm Meter:

A Volt/Ohm meter is always a good tool to have on hand when installing any type of electrical component into a vehicle. The most basic meters provide the two functions required to diagnose electrical issues commonly seen during a harness install. These two functions are the ability to read DC Voltage and electrical continuity or Ohms. They can be purchased from any home improvement store, local hardware store and electrical supply shop and online.



Heat Gun:

Very useful to shrink the heat-shrink found in the parts kit.



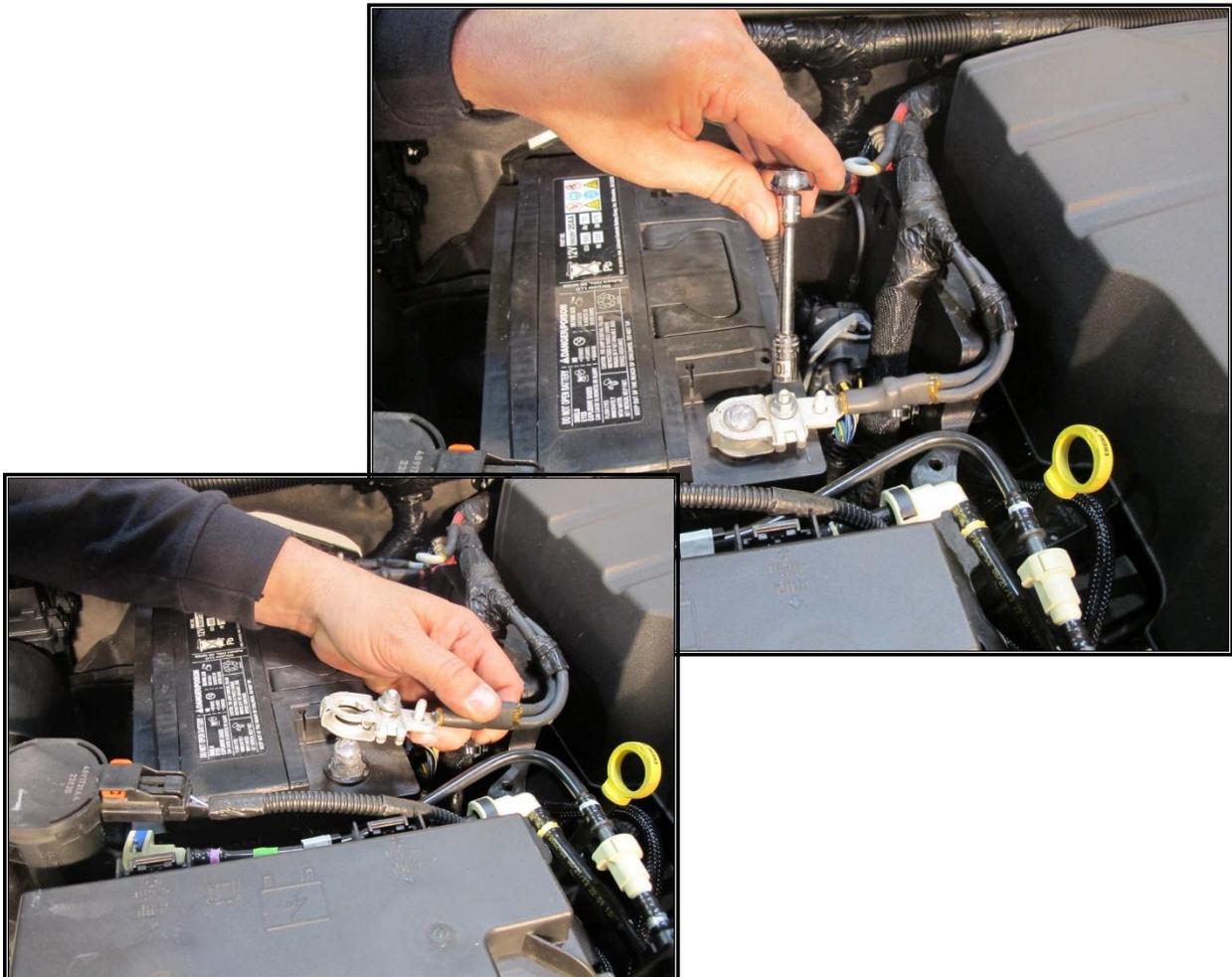
FUSE/RELAY CENTER INSTALLATION

The following steps **MUST** be followed as they are printed. Do not move onto other parts of the installation out of sequence.

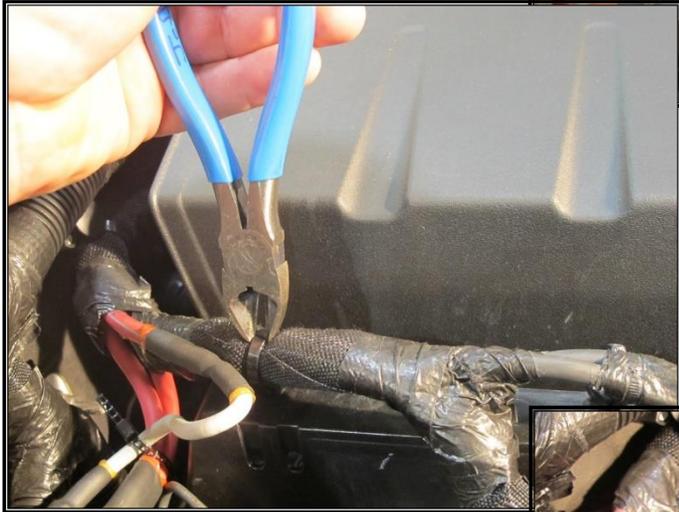
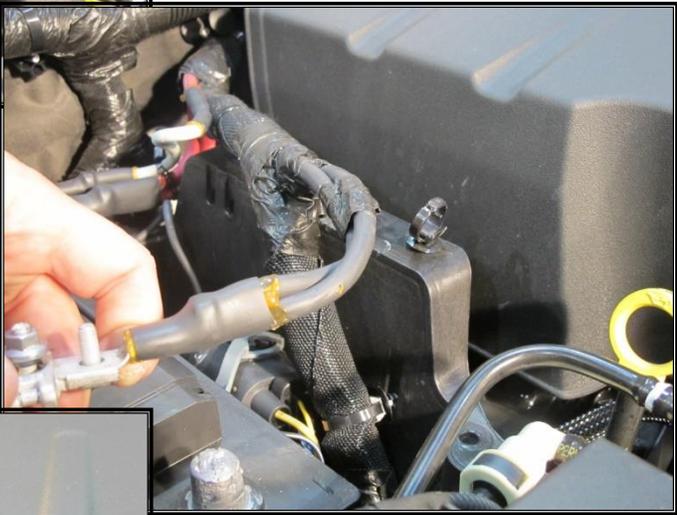
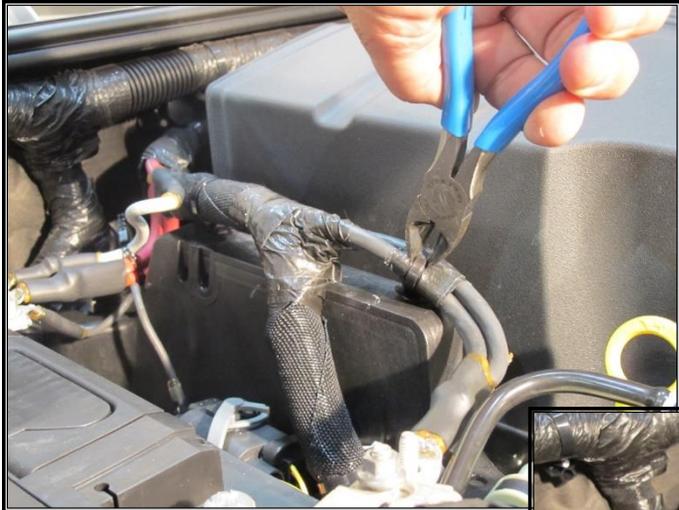
CAUTION: BEFORE THE INSTALLATION OF THIS PRODUCT, DISCONNECT THE POWER FROM YOUR VEHICLE BY REMOVING THE BATTERY CABLES FROM THE BATTERY. THE BATTERY SHOULD NOT TO BE RECONNECTED UNTIL INSTRUCTED

2011-2016 JK

Step 1: Use a **10mm socket** to remove the battery cables from the battery. For ease of installation, we also recommend removing the factory engine cover.



Step 2: Use **wire cutters** to cut the two “Umbrella Style” zip-ties on top of the battery tray that hold the factory wiring harness.



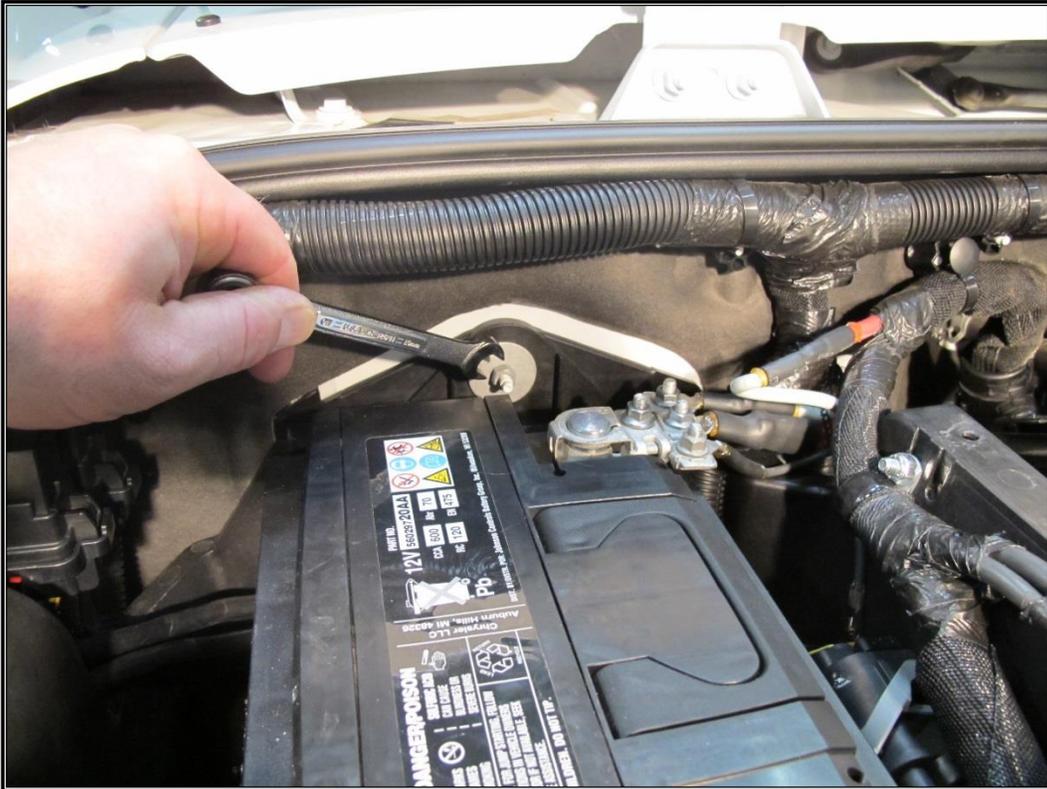
Step 3: Position (1) ¾" Adel clamp over the factory wiring harness.



Step 4: Mount the Adel clamp to the inside wall of the factory battery tray using the supplied (1) ¼" - 20 Bolt, (1) flat washer, and (1) ¼" nylon locking nut.



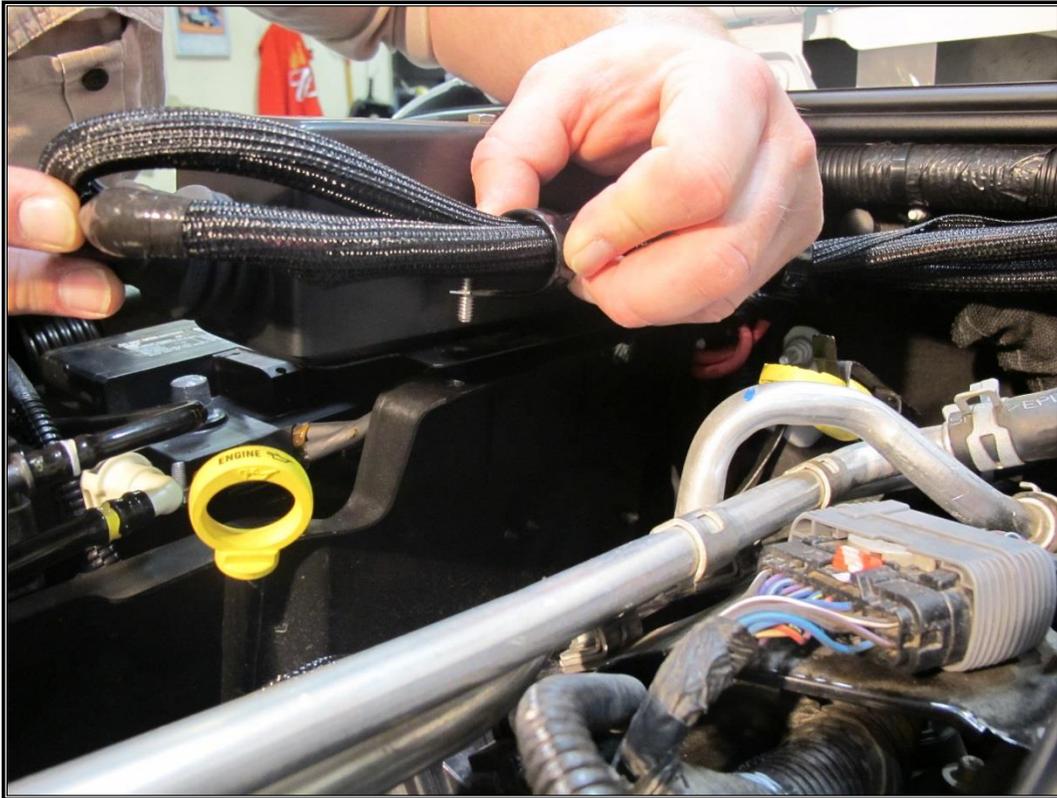
Step 5: Use a **10mm wrench** or **socket** to remove the **factory battery tray mounting nut** from the stud on the firewall.



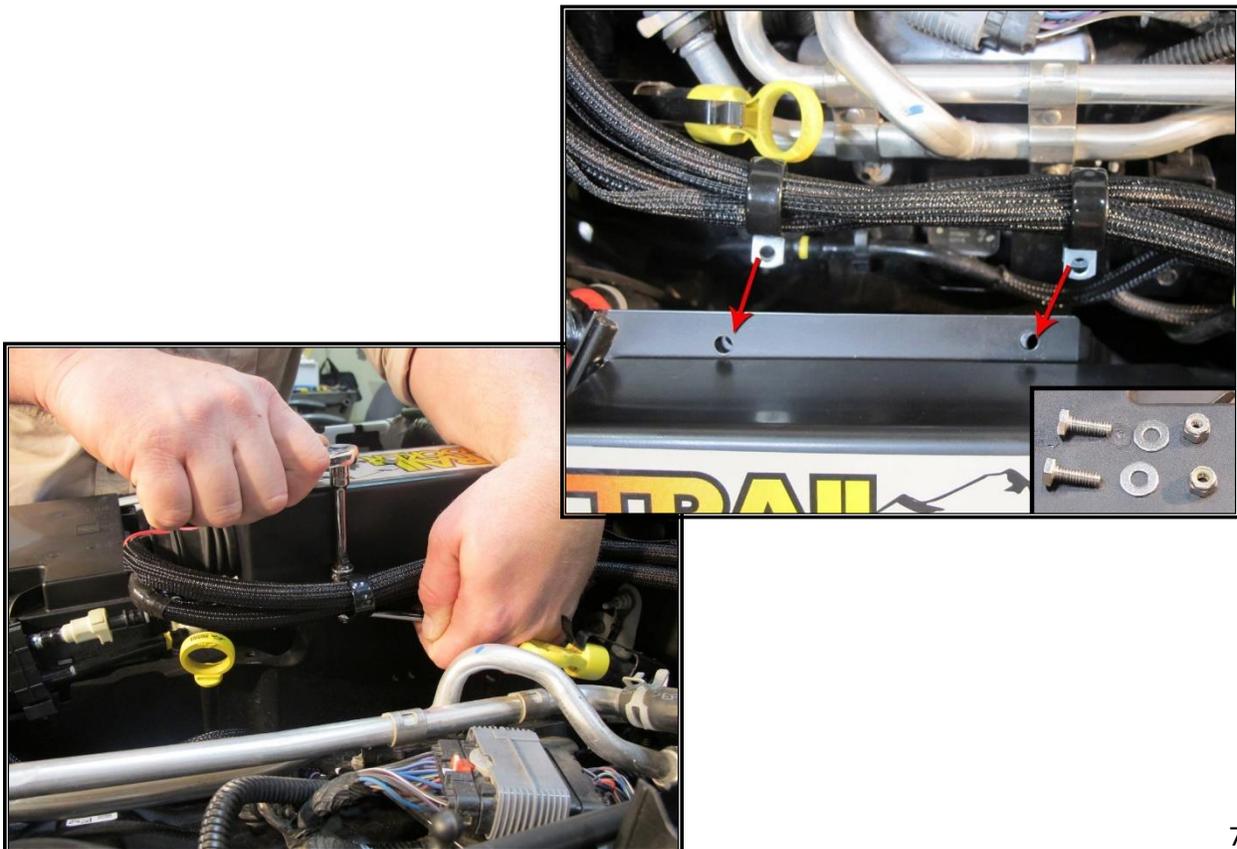
Step 6: Position the **Fuse/Relay Center mounting bracket** over the factory firewall mounted stud. Then, hand-tighten the **factory battery tray mounting nut** back onto the stud on the firewall.



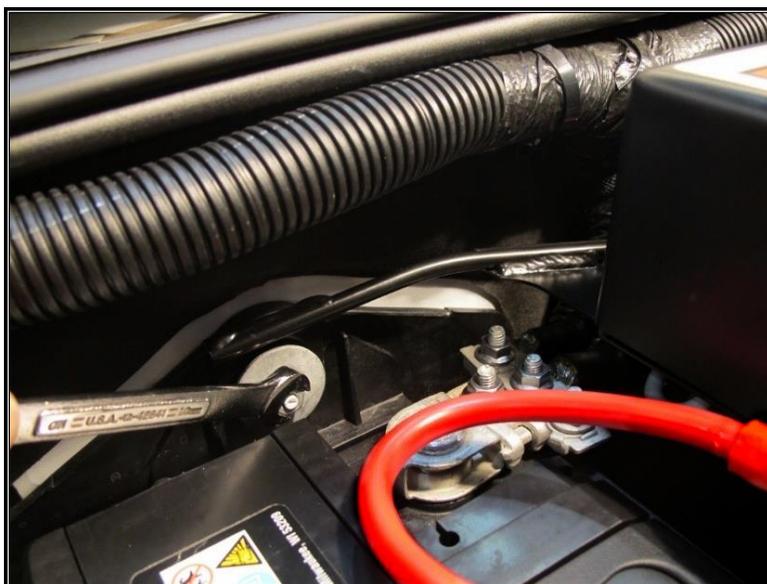
Step 7: Position (2) 1" Adel clamps over the Trail Rocker control wires.



Step 8: Use the provided (2) 1/4"-20 bolts, (2) flat washers, and (2) nylon locking nuts to mount the Adel clamps and the Fuse/Relay Center bracket to the factory battery tray as shown.



Step 9: Use a **10mm wrench** or **socket** to tighten the factory battery tray nut to the stud on the firewall.



Step 10: Route the Fuse/Relay Center control wires across the firewall. Secure the control wires to the factory harness loom using **zip-ties** provided in the parts kit. You can now reinstall your engine cover.

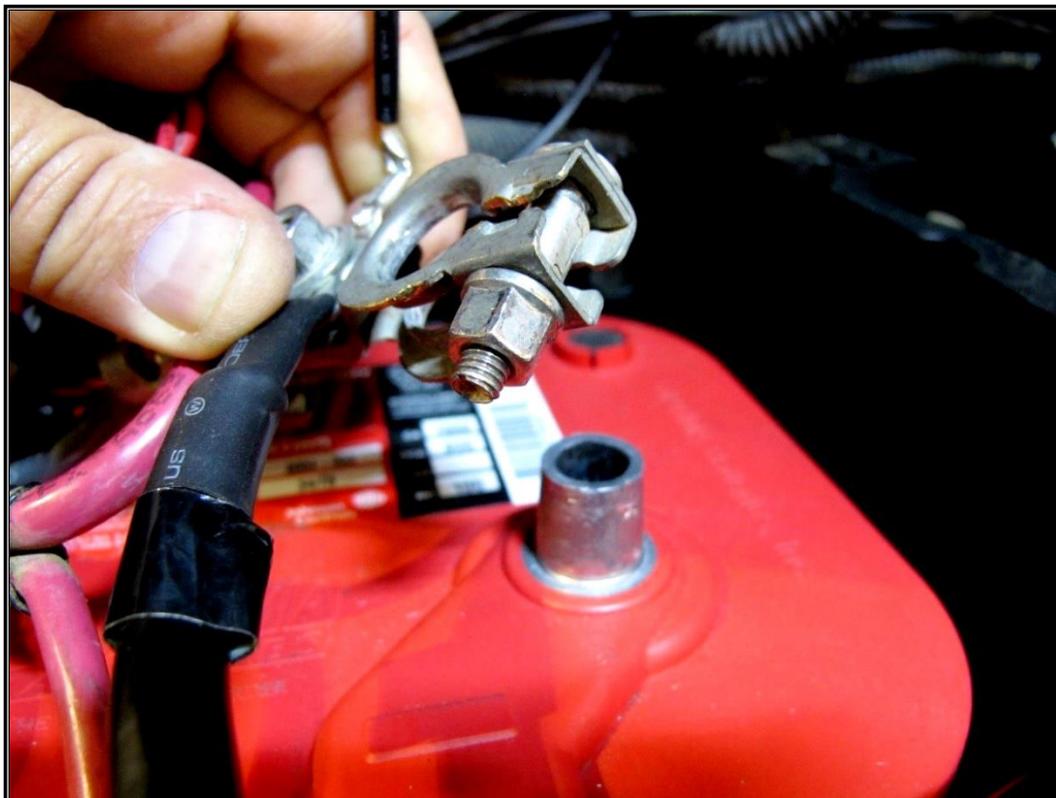
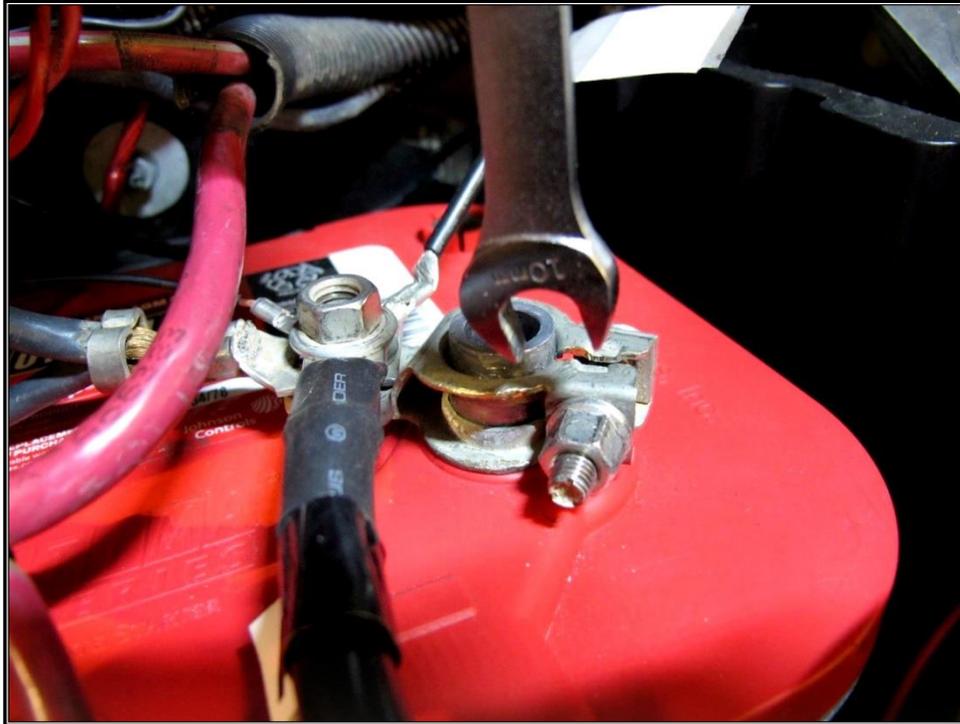


**IF YOUR JEEP HAS AN AUTOMATIC TRANSMISSION,
FOLLOW STEPS 26 - 32 BEGINNING ON **PAGE 22****

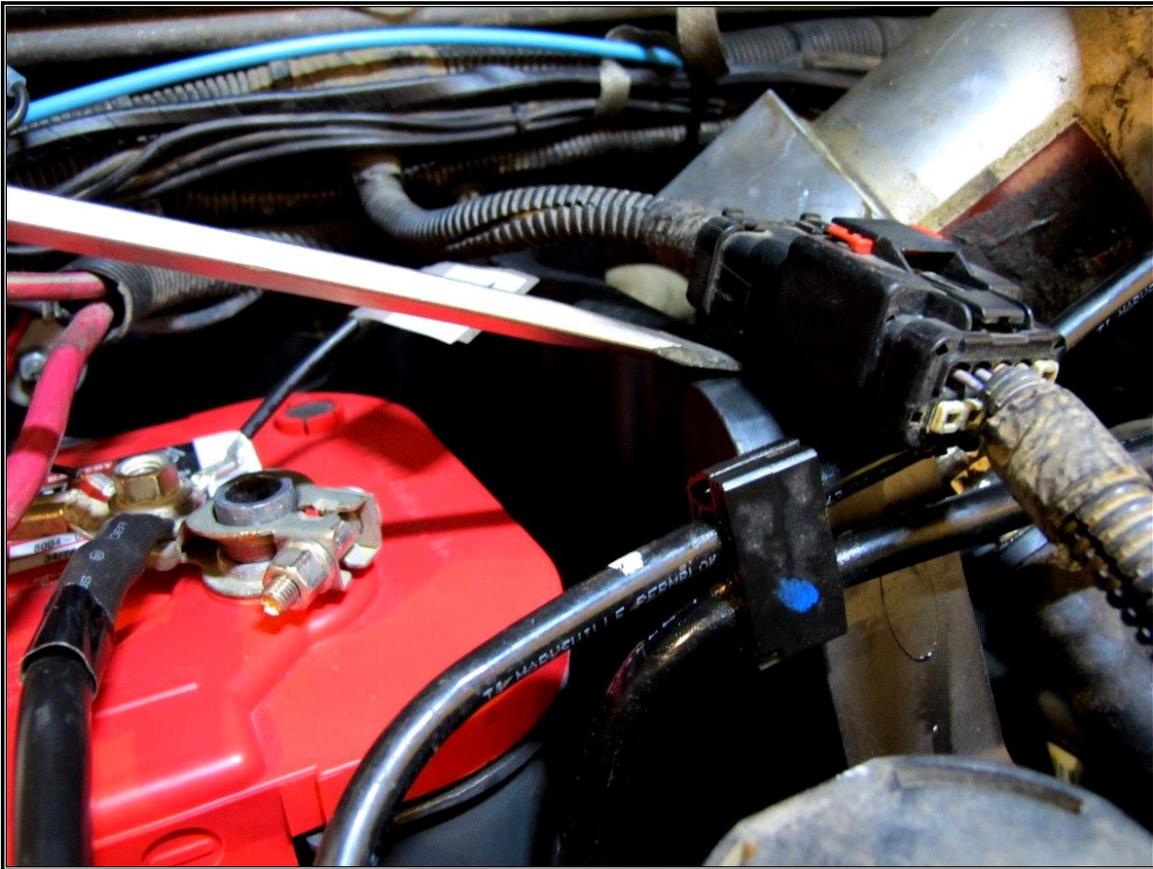
**IF YOUR JEEP HAS A MANUAL TRANSMISSION, FOLLOW
STEPS 33 - 38 BEGINNING ON **PAGE 26.****

2009-2010 JK

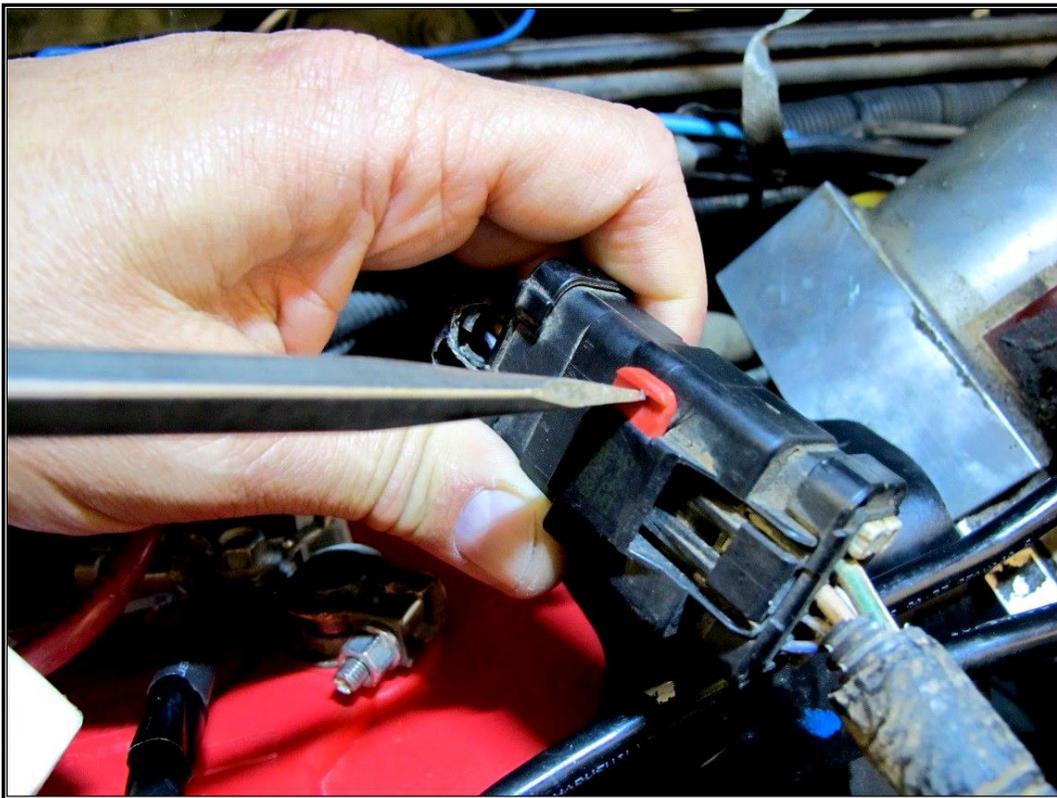
Step 11: Use a **10mm wrench** or **socket** to loosen and remove the battery cables from the battery. For ease of installation, we also recommend removing factory engine cover.



Step 12: Use a **flathead screwdriver** to lightly pry the factory wiring and connector from the right side of the battery box.



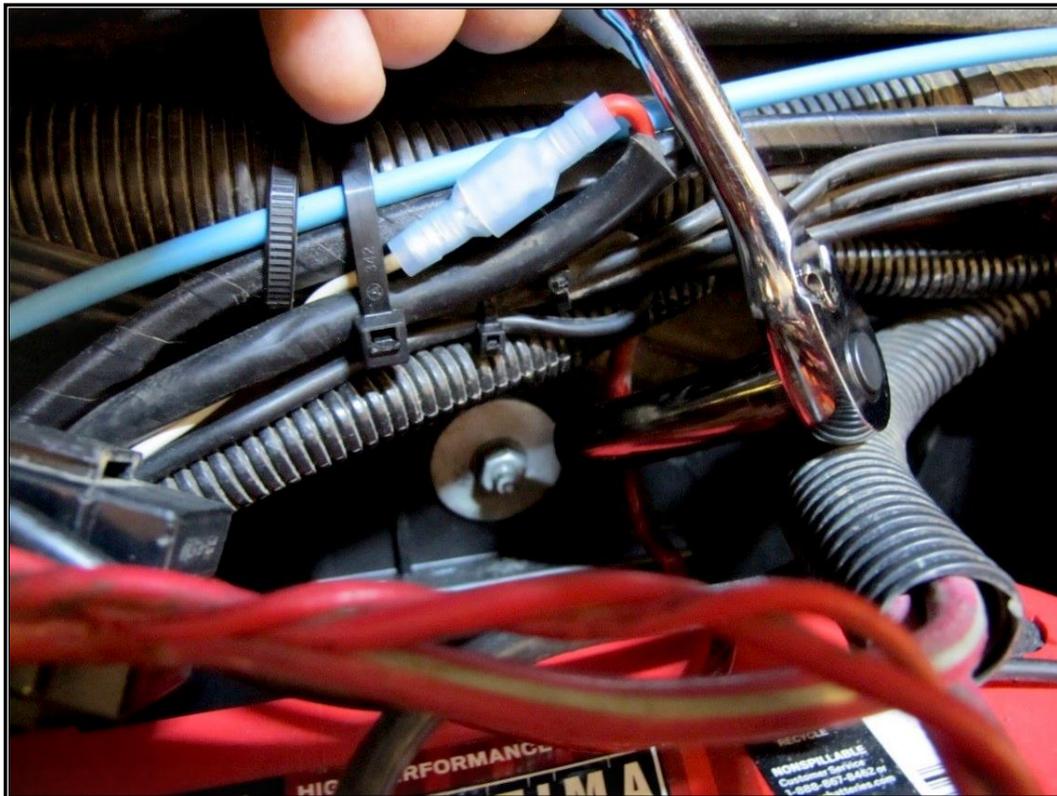
Step 13: After you remove the connector, “unlock” the red tab by using a flathead screwdriver.



Step 14: With the tab unlocked unplug the connector.



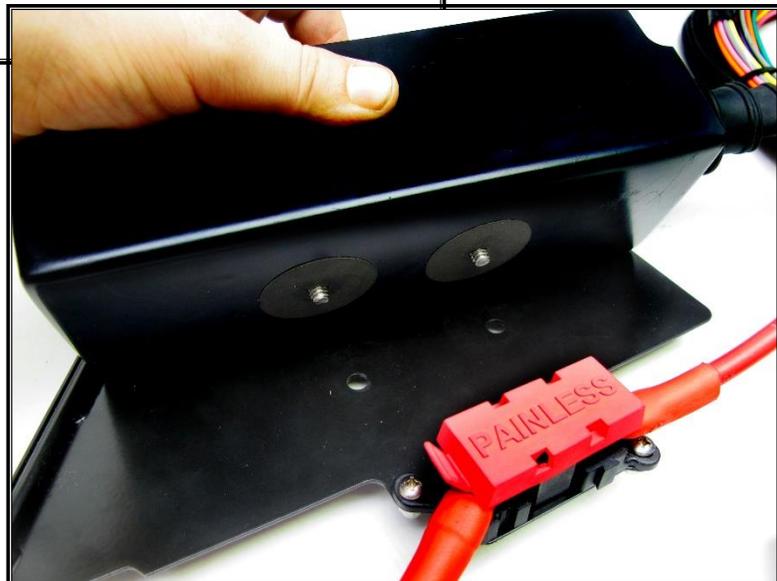
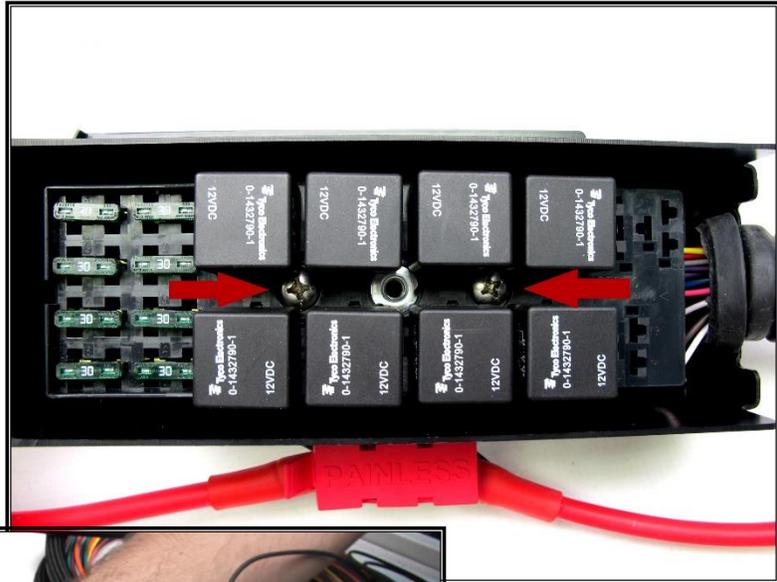
Step 15: Use a **10mm wrench** or **socket** to remove the battery tray mounting nut from the stud on the firewall.



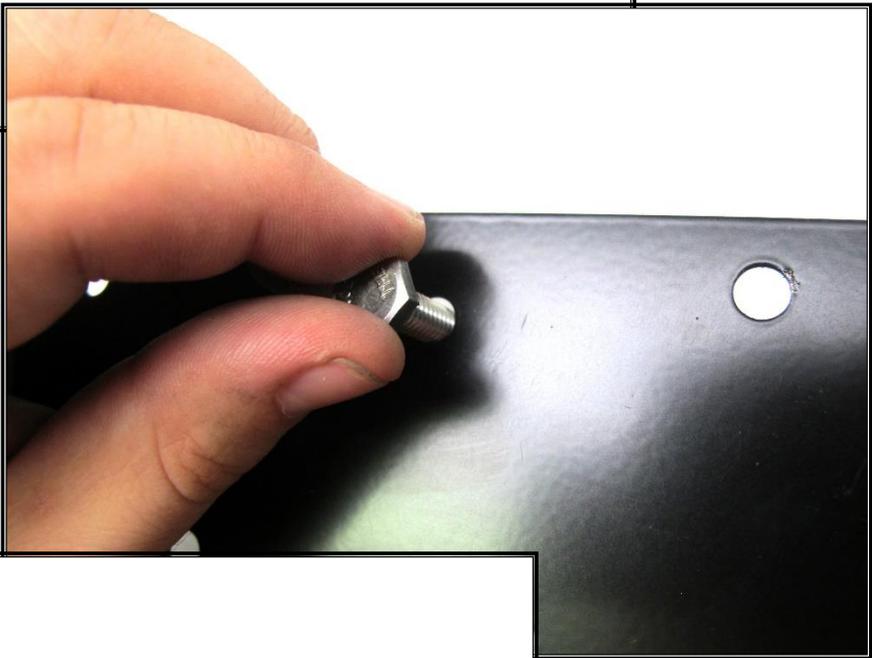
Step 16: Remove the Fuse/Relay Center from the bracket. To do this remove the lid from the Fuse/Relay Center using a $\frac{1}{16}$ " wrench or socket.



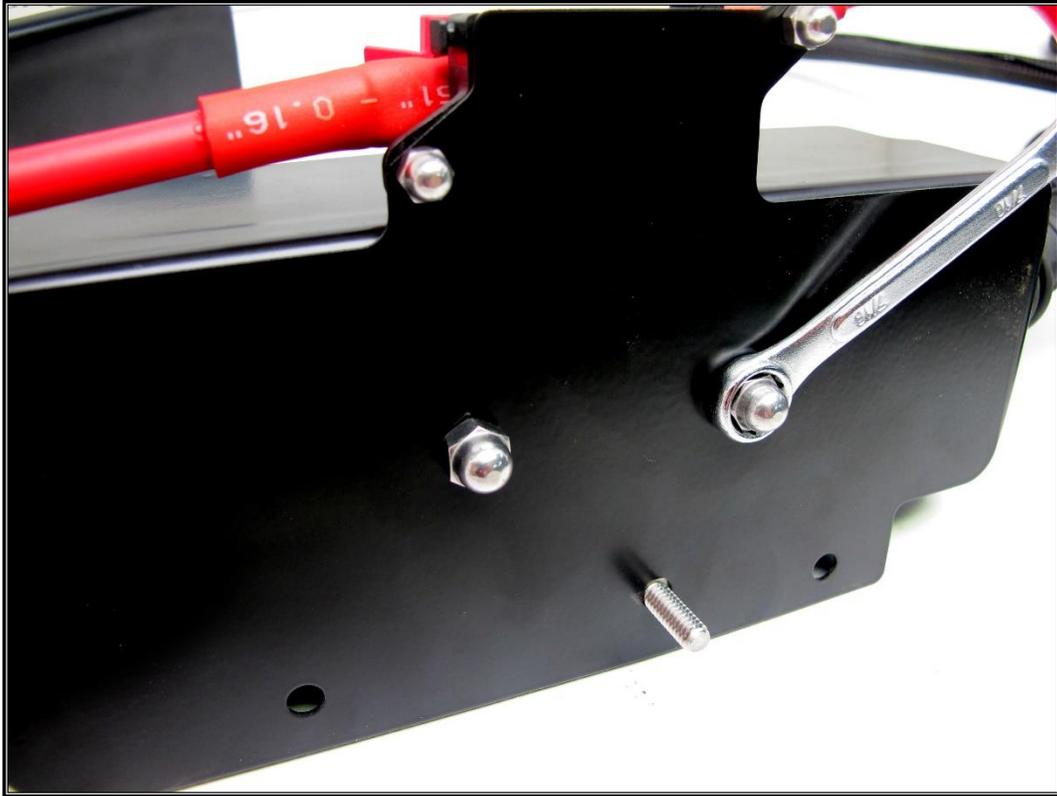
Step 17: Once the cover is removed, notice the mounting bolts located below the relays. Use a **#2 Stubby Philips-head screwdriver** to hold the bolts in place while you remove the $\frac{1}{4}$ " threaded, acorns nuts on the bottom of the unit with a $\frac{1}{16}$ " wrench or socket.



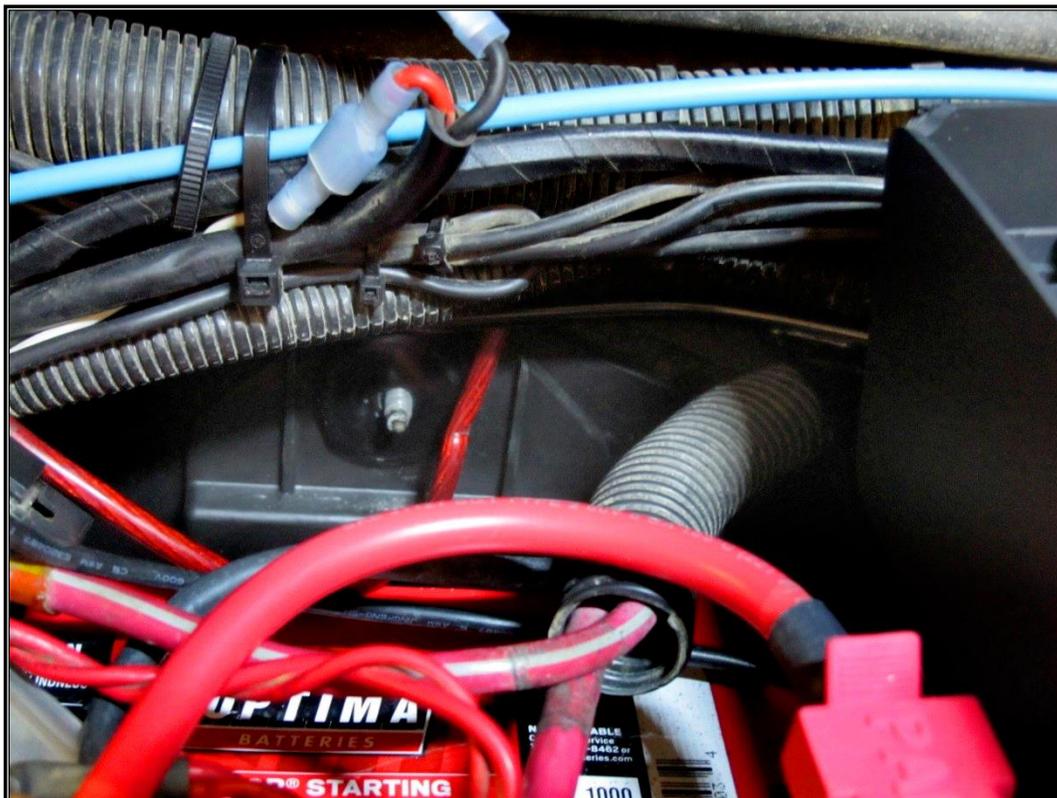
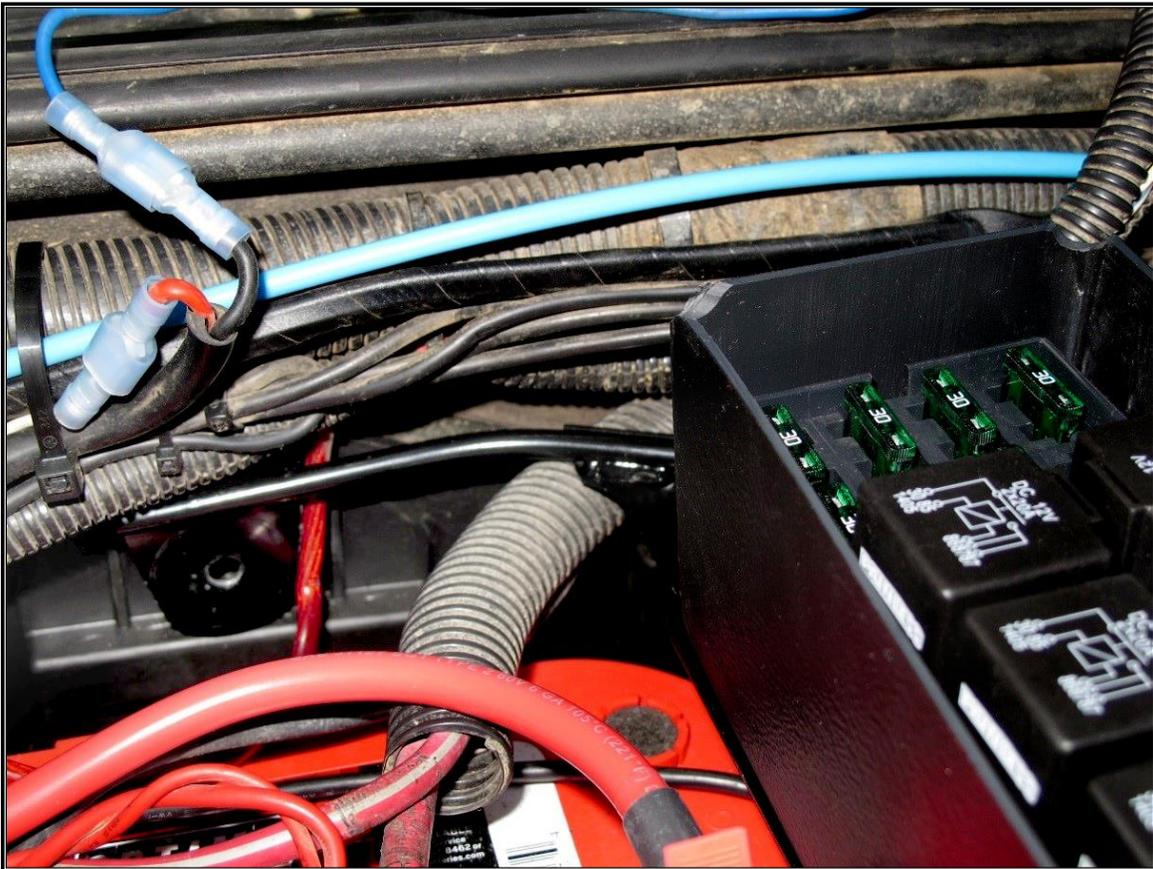
Step 18: With the Fuse/Relay Center removed locate the center hole on the bracket and a $\frac{1}{4}$ "-20 stainless bolt. Insert the bolt into the center hole.



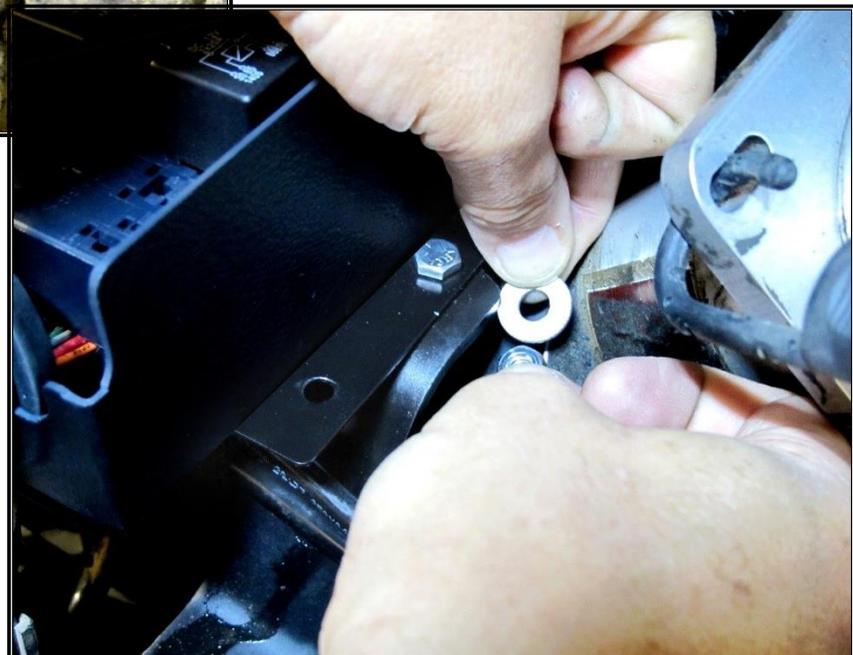
Step 19: Fasten the bracket to the Fuse/Relay Center using the $\frac{1}{4}$ " threaded, acorns nuts you removed in Step 17.



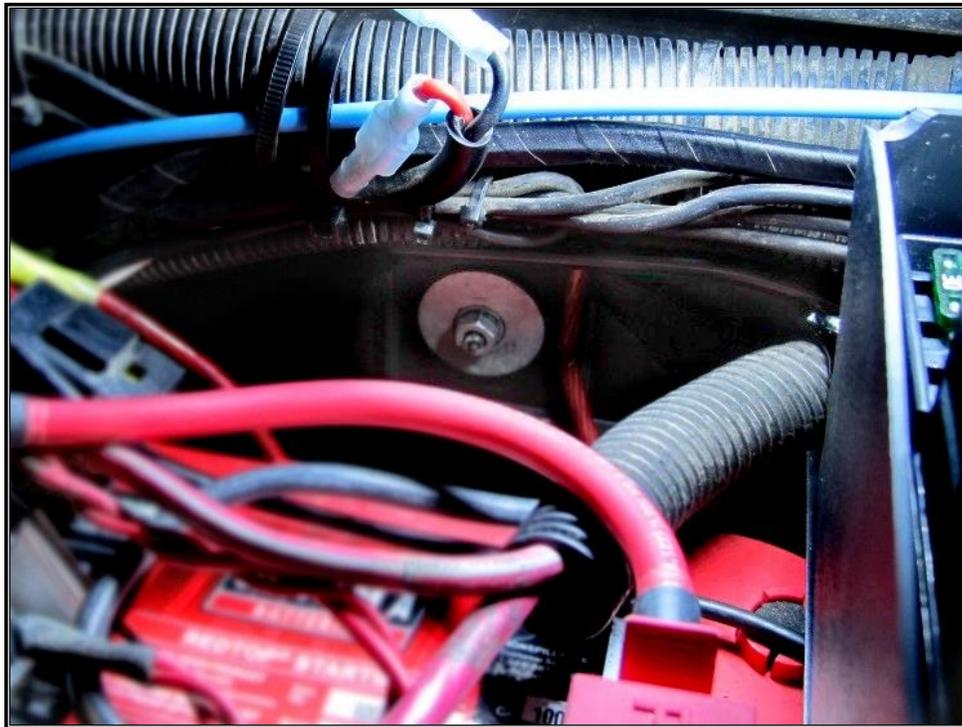
Step 20: Position the Fuse/Relay Center mounting bracket over the factory firewall mounted stud, and hand-tighten the factory battery tray nut onto the firewall stud.



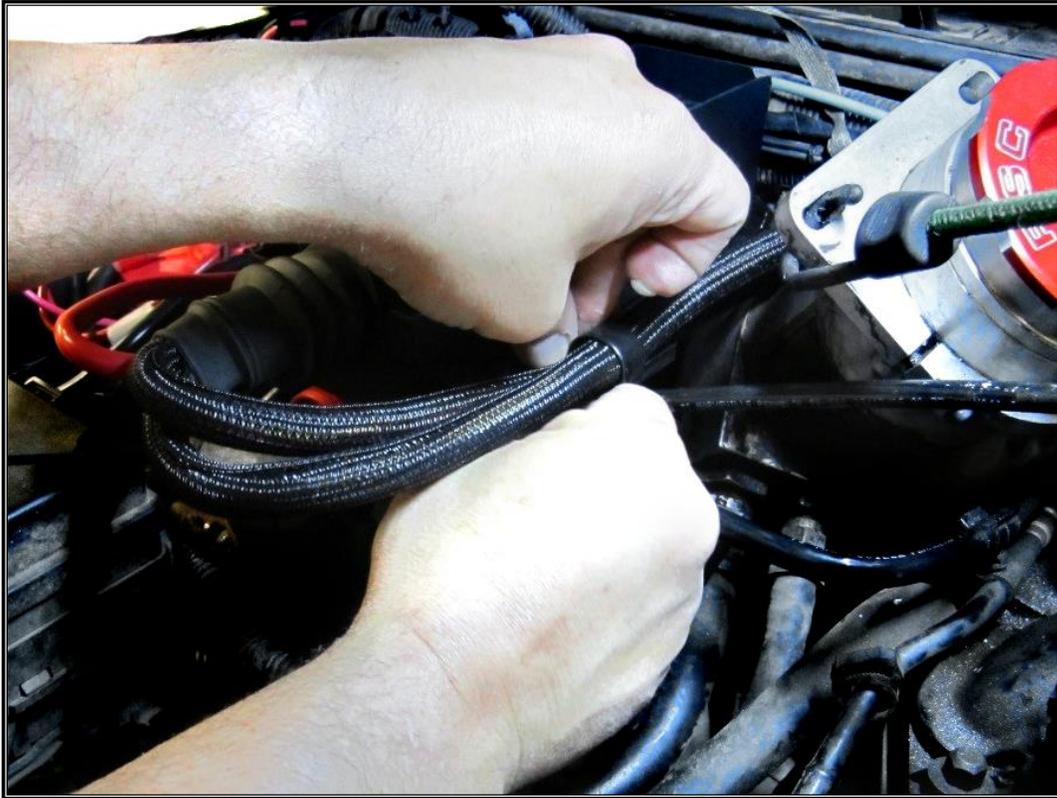
Step 21: Use the provided (1) ¼”-20 bolts, (1) flat washers, and (1) nylon locking nuts to mount the Fuse/Relay Center mounting bracket to the factory battery tray as shown.



Step 22: Use a **10mm wrench** or **socket** to reinstall the factory battery tray nut to stud on the firewall, and secure the **Fuse/Relay Center mounting bracket**.



Step 23: Position a 1" Adel clamp over the Fuse/Relay Center control wires.



Step 24: Mount the Adel clamp to the hole on the Fuse/Relay Center bracket using a supplied (1) ¼"-20 Bolt, (1) flat washer, and (1) ¼" nylon locking nut.



Step 25: Route the Fuse/Relay Center control wires across the firewall. Secure the control wires to the factory harness loom using the provided [zip-ties](#). Remember, also, to reconnect the factory connector you unplugged in Steps 12-14.



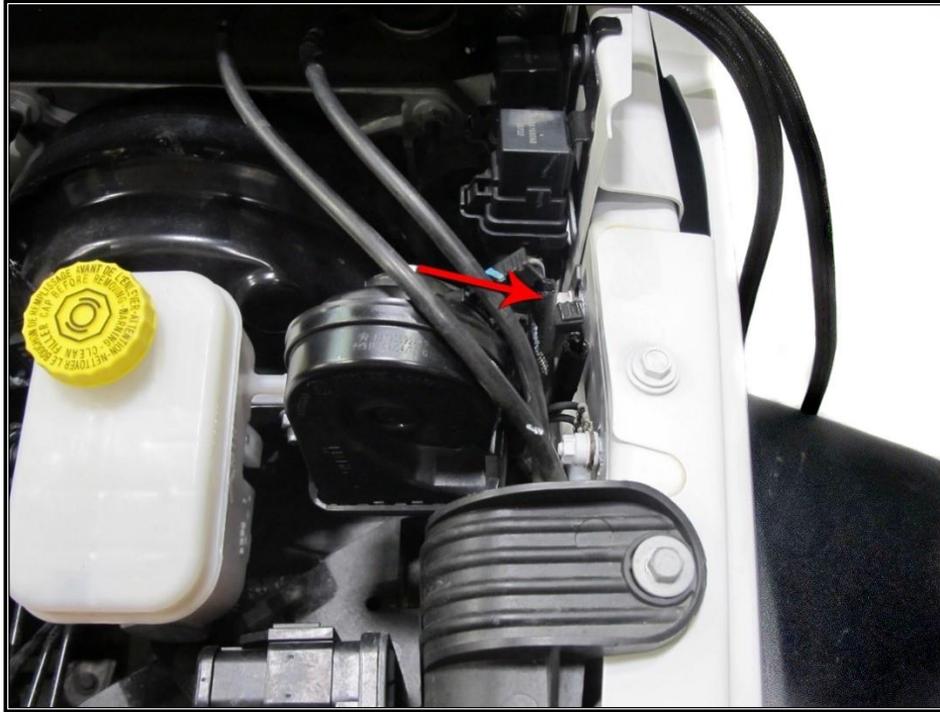
**IF YOUR JEEP HAS AN AUTOMATIC TRANSMISSION,
FOLLOW STEPS 26 - 32 BEGINNING ON [PAGE 22](#)**

**IF YOUR JEEP HAS A MANUAL TRANSMISSION, FOLLOW
STEPS 33 - 38 BEGINNING ON [PAGE 26](#).**

w/ AUTOMATIC TRANSMISSION

The following steps are for an automatic transmission. If you have a manual transmission, please skip to **Step 33** on [page 26](#).

Step 26: On the driver side of the engine bay, locate the horn and remove it using a **10mm wrench** or **socket**.

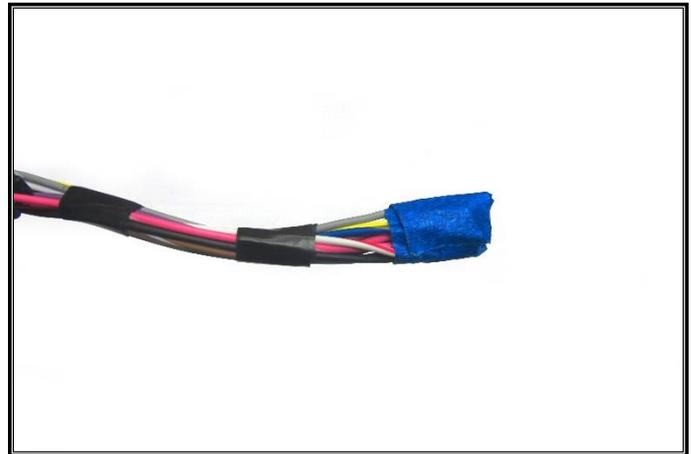
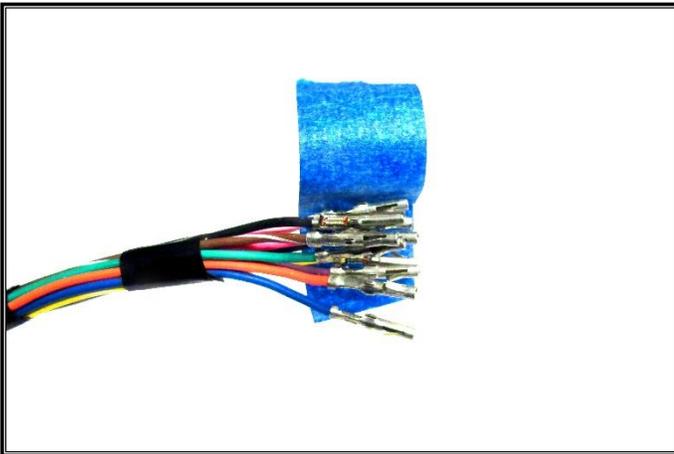


Step 27: With the horn removed, you can now access the pass-through on the firewall. This is your access point to route the **Switch Control** wires into the interior. **(Note: You may need to push open the factory carpet using your finger)**

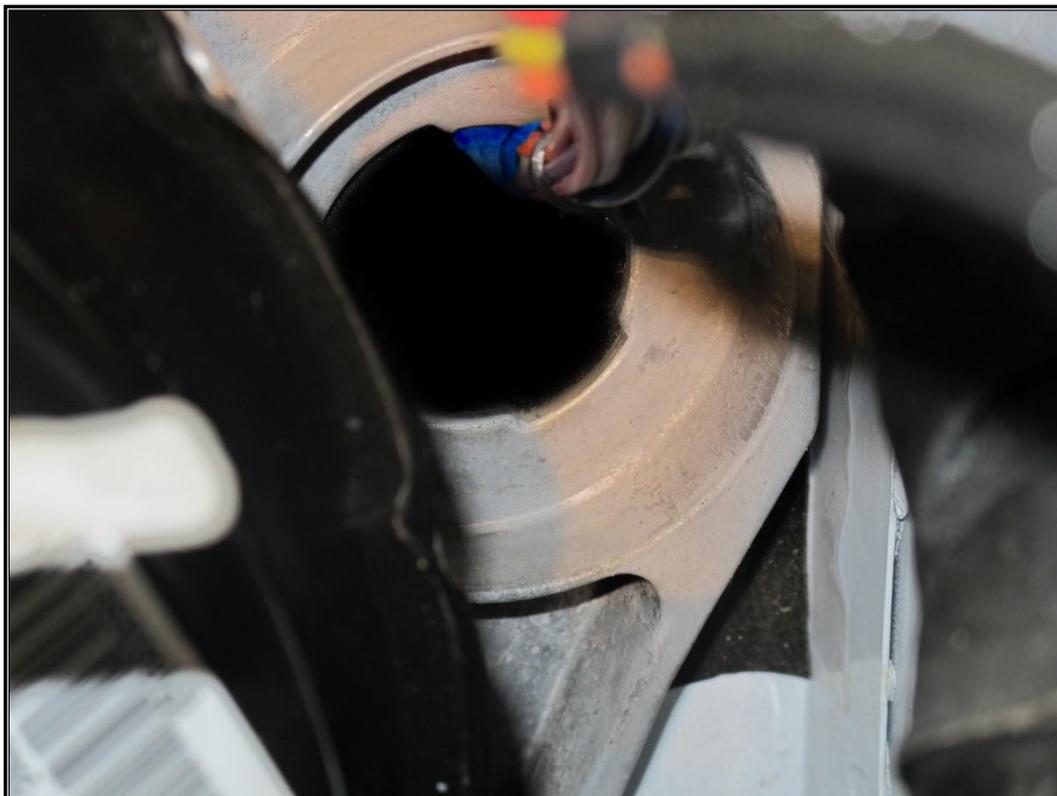


Step 28: Next, secure the loose ends of the **Switch Control wires** with a piece of **masking tape**. This step is necessary to insure ease when feeding the wire through the firewall on **Step 29**. Failing to tape the ends can cause the loose wires to catch on the internal structure of the dash.

WARNING: MAKE SURE YOUR SYSTEM IS NOT CONNECTED TO THE BATTERY! THESE WIRES ARE HOT WHEN THE TRAIL ROCKER HAS POWER AND WILL SHORT THE SYSTEM OUT IF THEY TOUCH AS SEEN IN THE IMAGES BELOW. AGAIN, DO NOT RECONNECT THE BATTERY UNTIL INSTRUCTED.



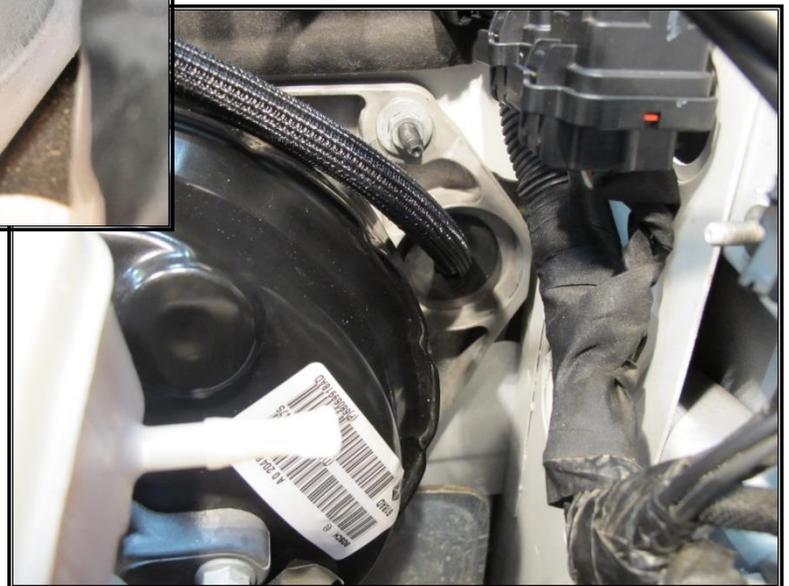
Step 29: Carefully route the **Switch Control wire connector** through the pass-through.



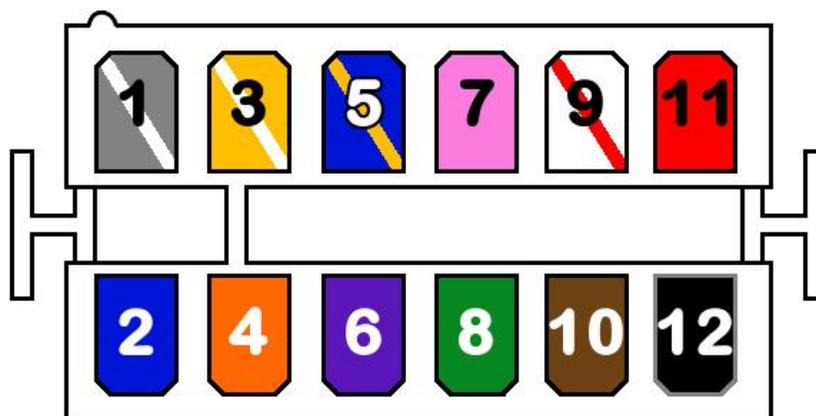
Step 30: Apply the provided **rubber grommet** over the **Switch Control wires** with the slit facing up.



Step 31: Push the **rubber grommet** into the firewall access hole as shown.



Step 32: On the interior, remove the tape and locate the **12-pin connector** shell in your parts kit. Then, connect the pinned wires from the **Fuse/Relay Center** using the diagram below. **NOTE:** The diagram below shows the connector from the wire side.



| WIRE | FUNCTION |
|------------------|-----------------|
| 1 - Grey/White | Relay 1 Enable |
| 2 - Blue | Relay 2 Enable |
| 3 - Yellow/White | Relay 3 Enable |
| 4 - Orange | Relay 4 Enable |
| 5 - Blue/Yellow | Relay 5 Enable |
| 6 - Purple | Relay 6 Enable |
| 7 - Pink | Relay 7 Enable |
| 8 - Green | Relay 8 Enable |
| 9 - White/Red | Winch IN |
| 10 - Brown/White | Winch OUT |
| 11 - Red | Switch Power |
| 12 - Black | Switch Ground |

Now, move to **Step 39** on [page 30](#) for the **Switch Control Pigtail** installation.

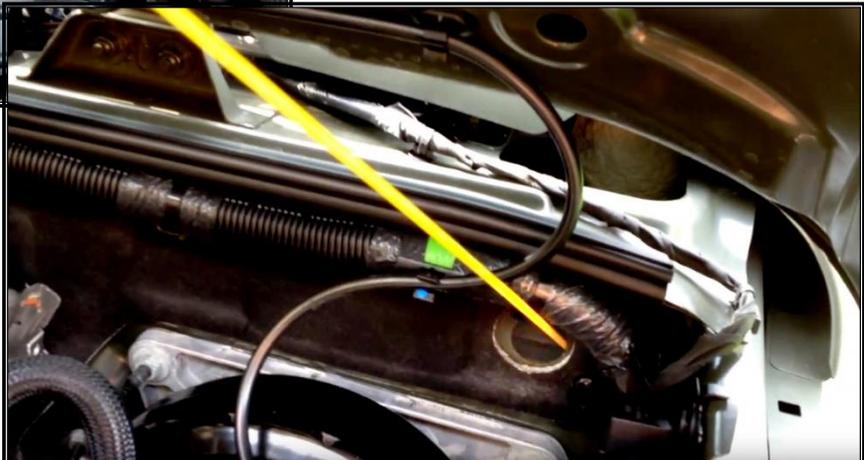
w/ MANUAL TRANSMISSION

The following steps are for a manual transmission. If you have an automatic transmission, please go back to **Step 26** on [page 22](#).

Step 33: Locate the pass-through above the brake booster on the firewall and remove the factory grommet.

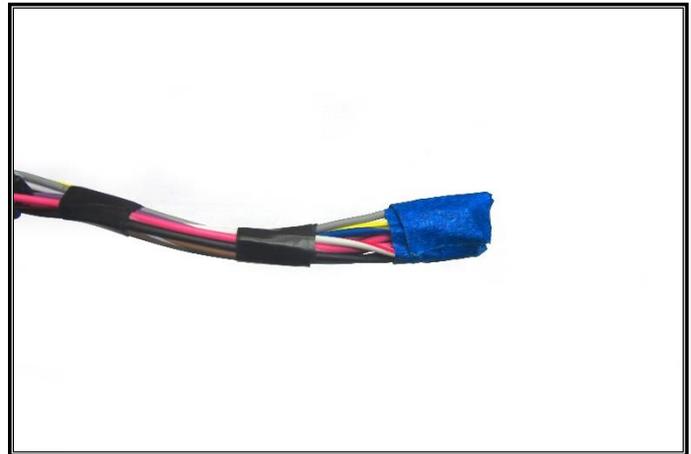
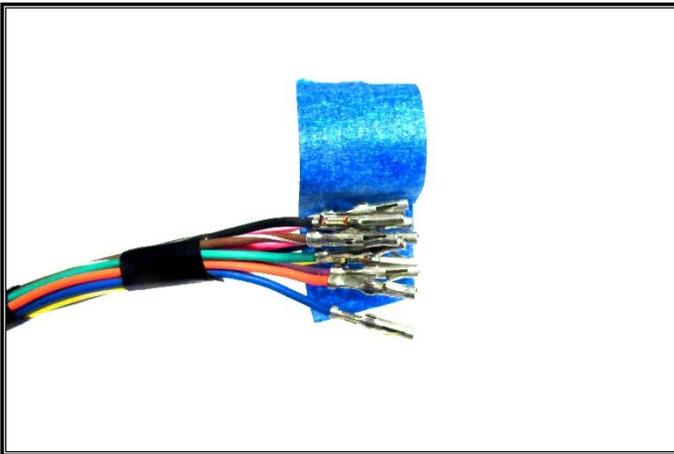


Step 34: Using something rigid, you will be able to tape and guide the Switch Control wires through the firewall.

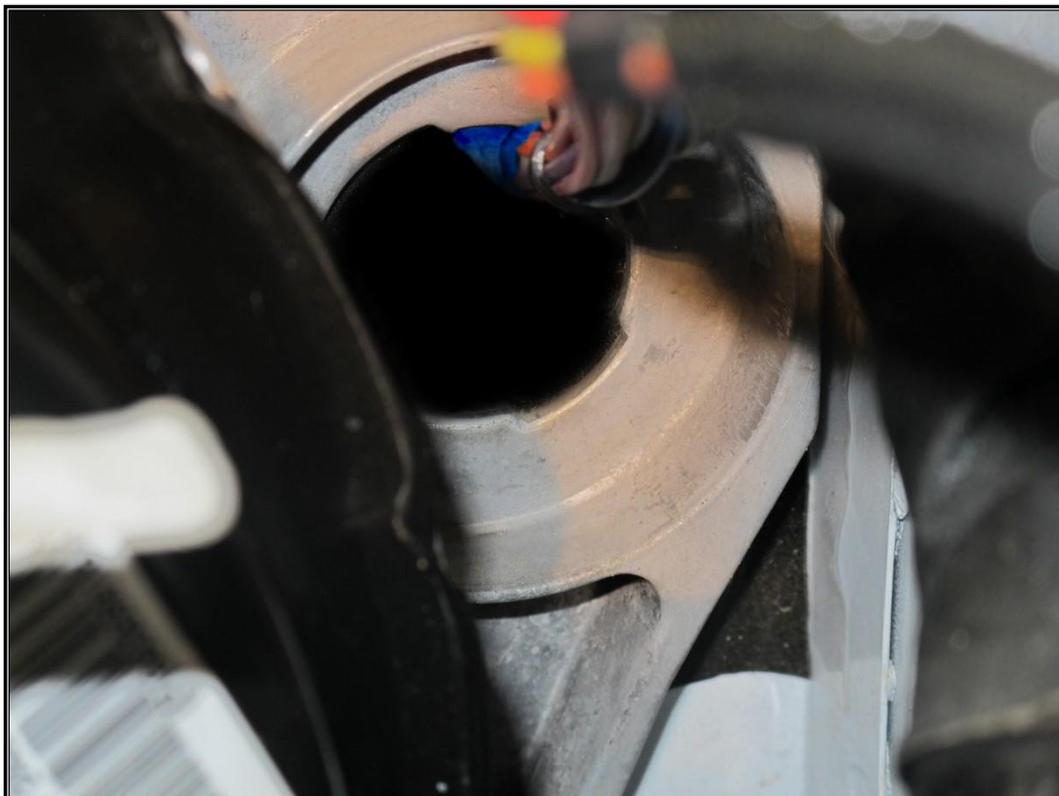


Step 35: Next, secure the loose ends of the **Switch Control wires** with a piece of **masking tape**. This step is necessary to insure ease when feeding the wire through the firewall on **Step 36**. Failing to tape the ends can cause the loose wires to catch on the internal structure of the dash.

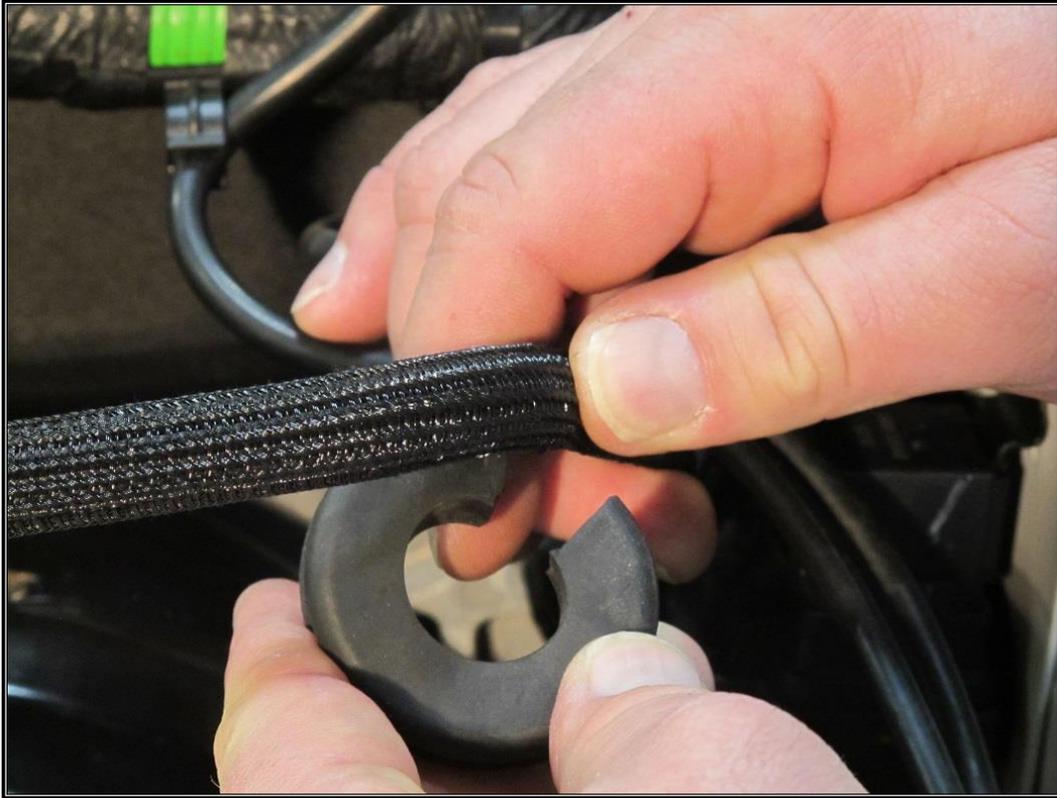
WARNING: MAKE SURE YOUR SYSTEM IS NOT CONNECTED TO THE BATTERY! THESE WIRES ARE HOT WHEN THE TRAIL ROCKER HAS POWER AND WILL SHORT THE SYSTEM OUT IF THEY TOUCH AS SEEN IN THE IMAGES BELOW. AGAIN, DO NOT RECONNECT THE BATTERY UNTIL INSTRUCTED.



Step 36: Carefully route the **Switch Control wire connector** through the pass-through.

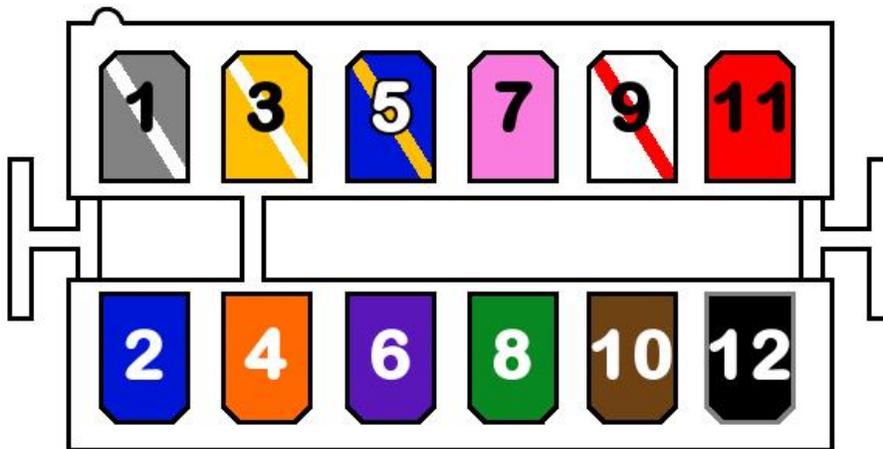


Step 37: Apply the provided **rubber grommet** over **Switch Control wires** with the slit facing up and press the **rubber grommet** into the hole on the firewall.



Step 38: On the interior, remove the tape and locate the **12-pin connector** shell in your parts kit. Then, connect the pinned wires from the **Fuse/Relay Center** using the diagram below. **NOTE:** The diagram below shows the connector from the wire side.





| WIRE | FUNCTION |
|------------------|-----------------|
| 1 - Grey/White | Relay 1 Enable |
| 2 - Blue | Relay 2 Enable |
| 3 - Yellow/White | Relay 3 Enable |
| 4 - Orange | Relay 4 Enable |
| 5 - Blue/Yellow | Relay 5 Enable |
| 6 - Purple | Relay 6 Enable |
| 7 - Pink | Relay 7 Enable |
| 8 - Green | Relay 8 Enable |
| 9 - White/Red | Winch IN |
| 10 - Brown/White | Winch OUT |
| 11 - Red | Switch Power |
| 12 - Black | Switch Ground |

Now, move to **Step 39** on [page 30](#) for the **Switch Control Pigtail** installation.

SWITCH CONTROL PIGTAIL

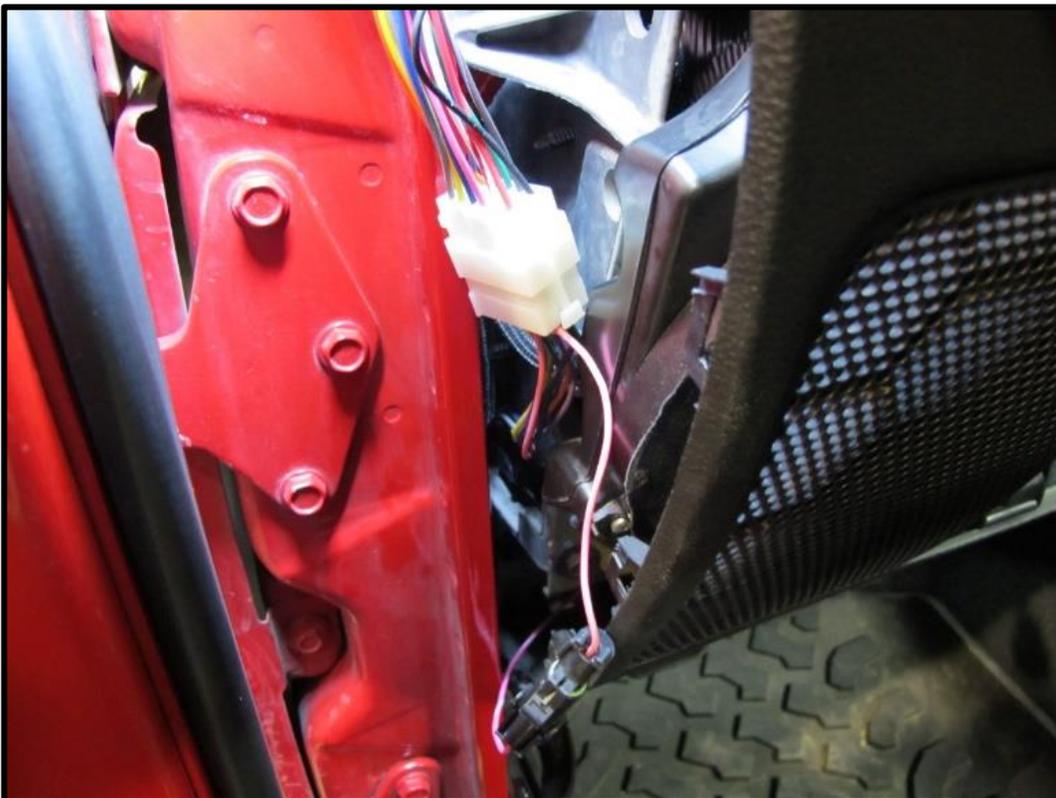
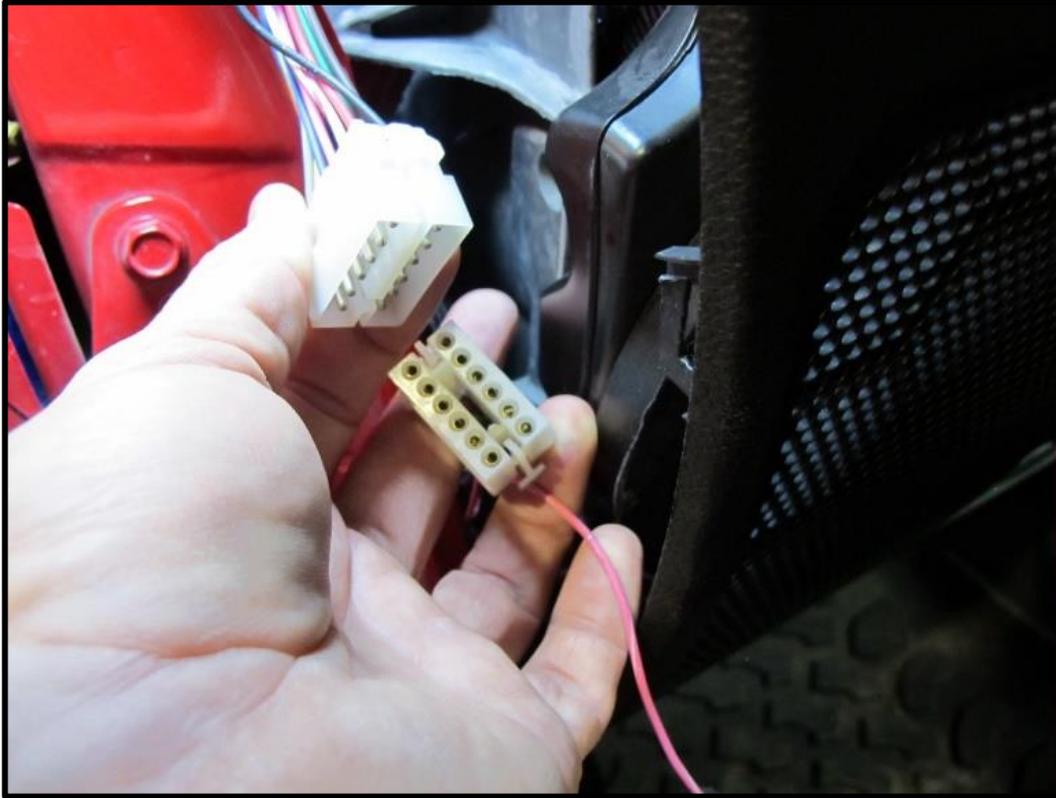
Step 39: Remove the access panel on the driver side of the dash by carefully prying the edge then pulling.



Step 40: Locate the Switch Control pigtail included in your Trail Rocker Kit.

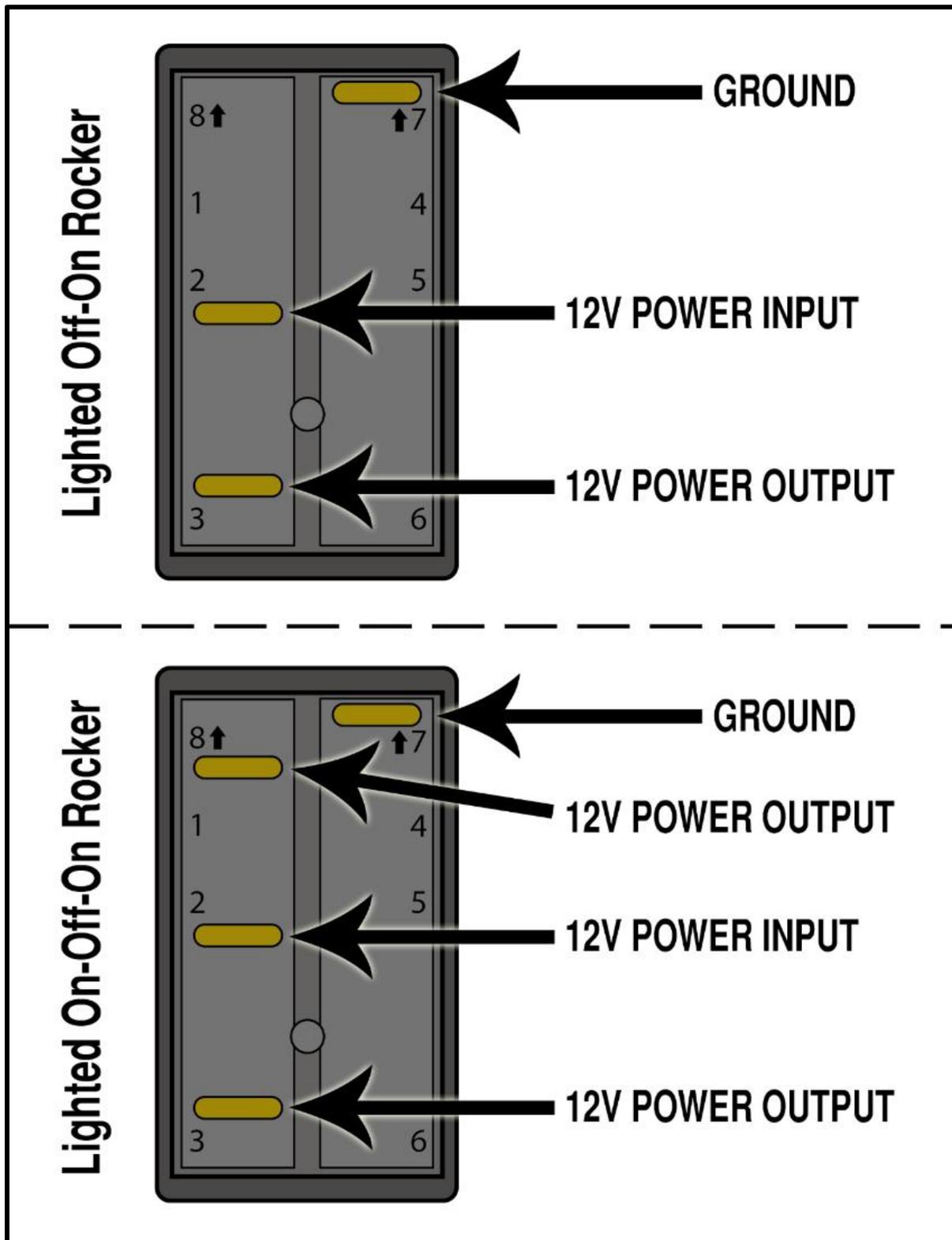


Step 41: Connect the **Switch Control pigtail** to the connector on the **Switch Control wires** you passed through the firewall in the previous section. Stow the wiring harness neatly away, and secure with a zip-tie if needed.

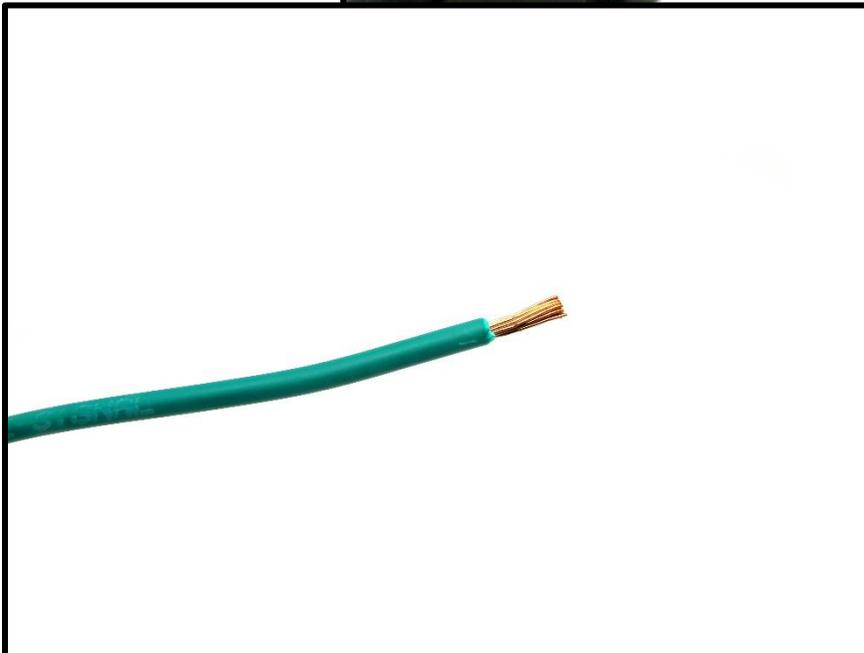
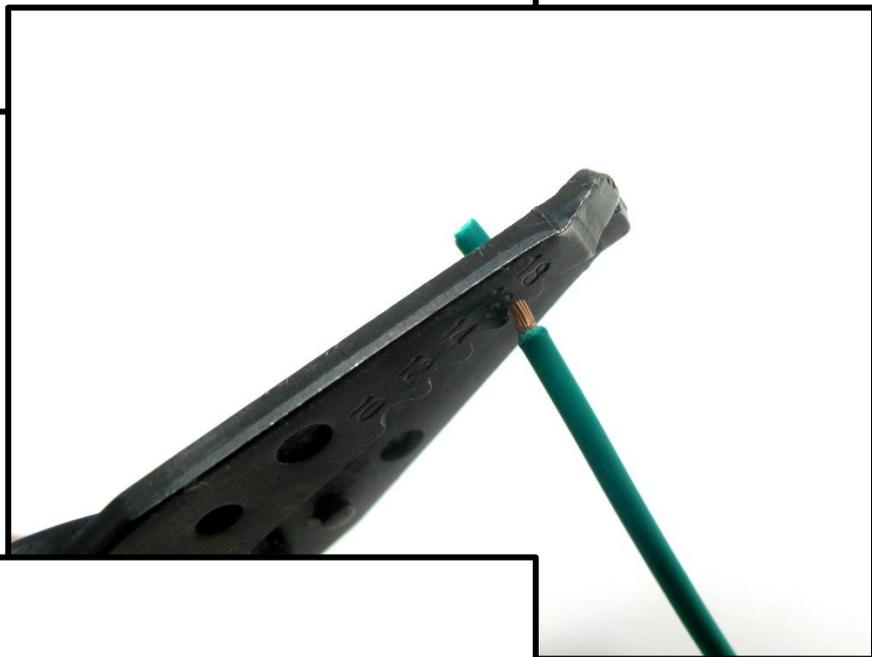
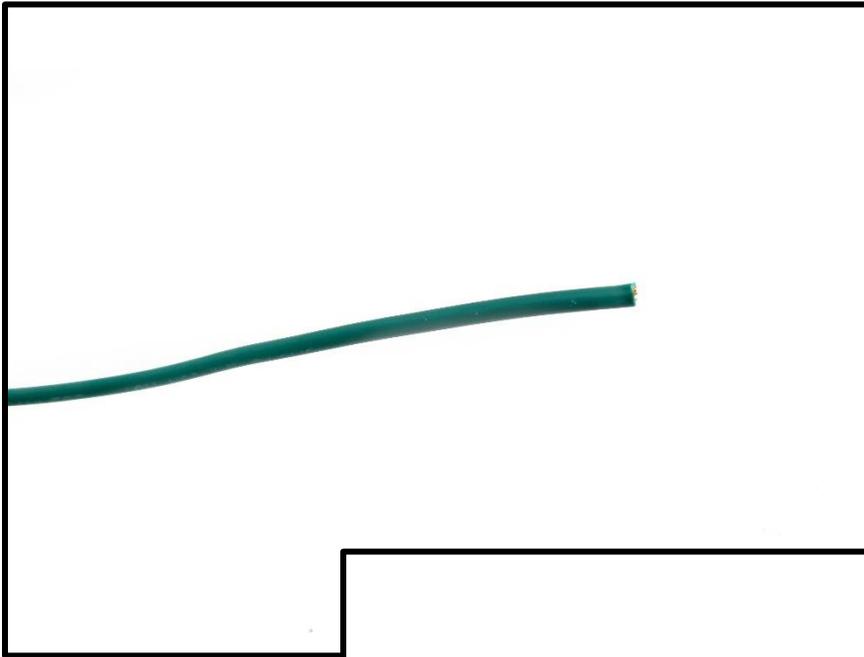


SWITCH WIRING

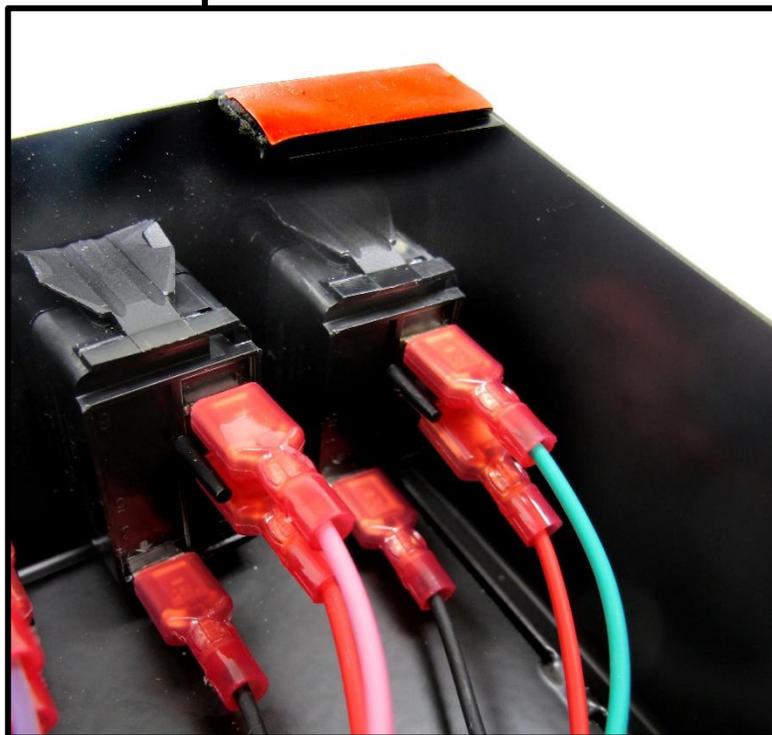
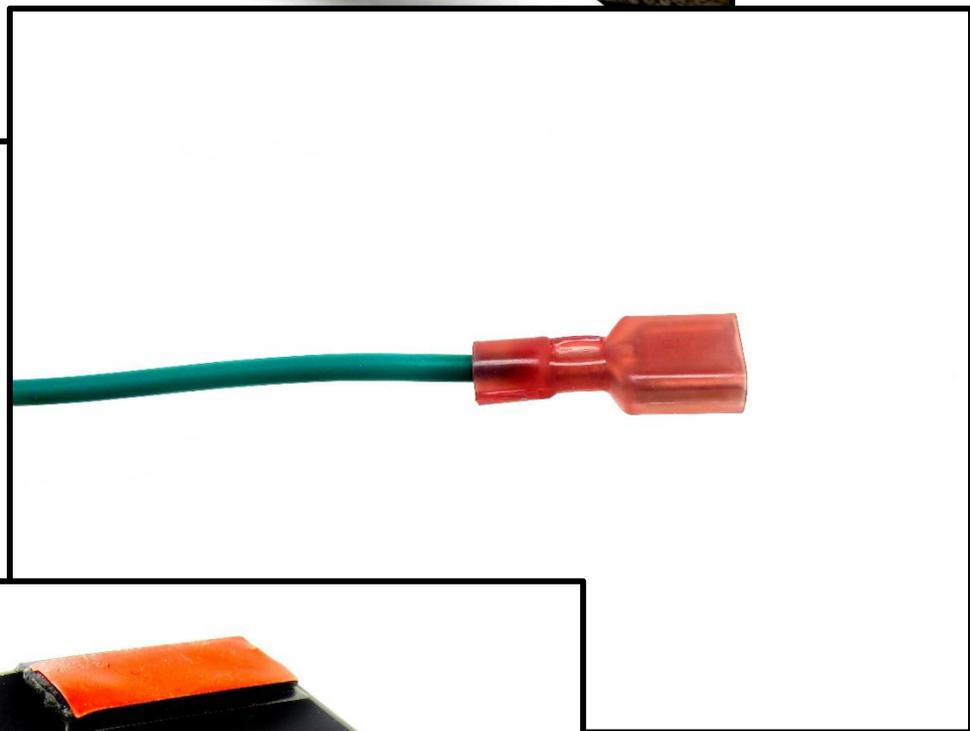
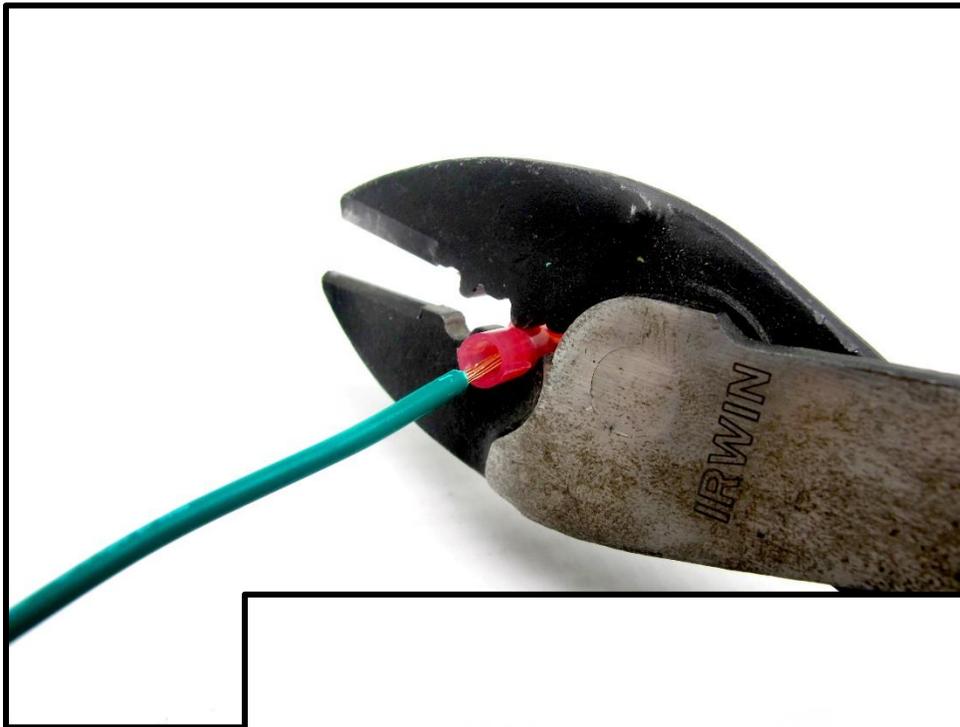
If you are running lighted rocker switches, they will need to be wired as shown in the diagram below. The switch control wires connect to the 12V POWER OUTPUT terminals.



Step 42: Locate the wire on the Switch Control pigtail you wish to connect to a switch and strip it about $\frac{1}{4}$ ".



Step 43: Crimp on a 20-18 ga. ¼" spade terminal found in the included parts kit. Then, connect the wire to the switch.



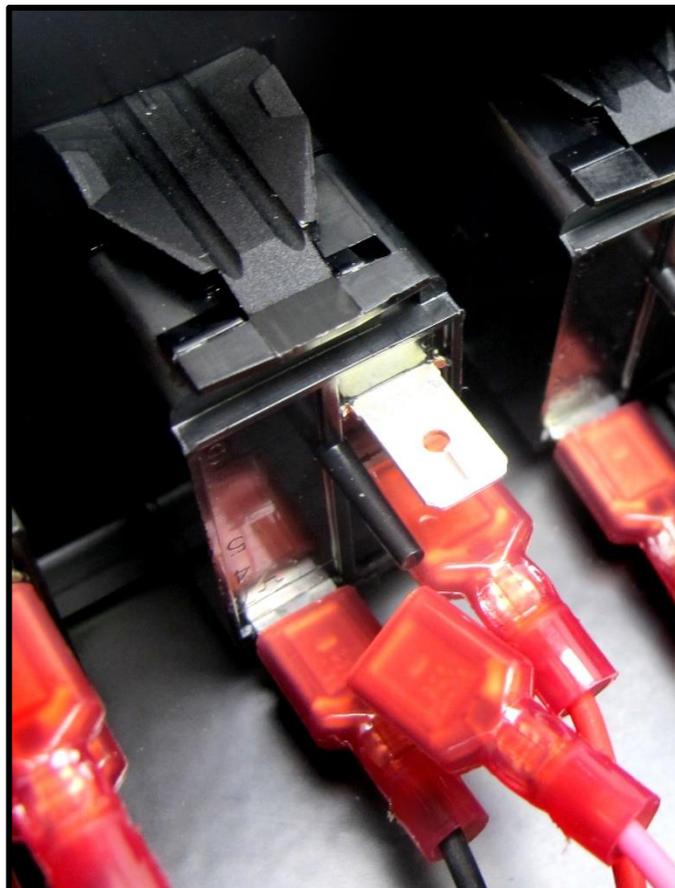
DOUBLING SWITCH CONTROL WIRES

Steps 44 - 48 are optional and only for those who wish to control multiple functions for one switch. Provided in the kit are several **16-14 ga. 1/4" spade terminals** and **piggyback terminals**, similar to those shown below. These terminals provide you with two different options for doubling switch control wires.

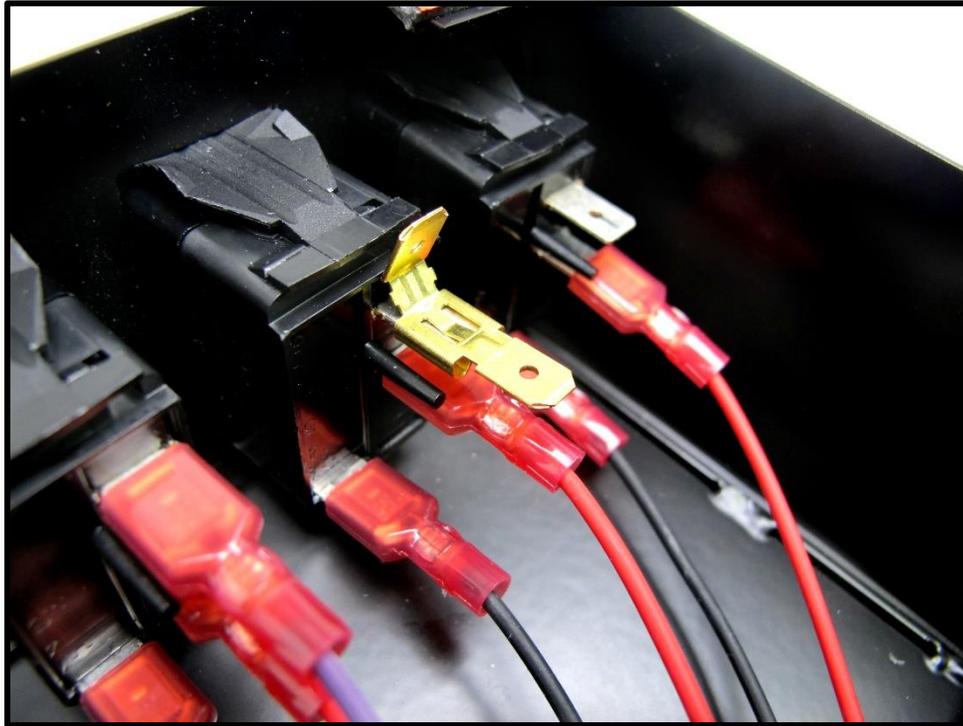


PIGGYBACK TERMINALS

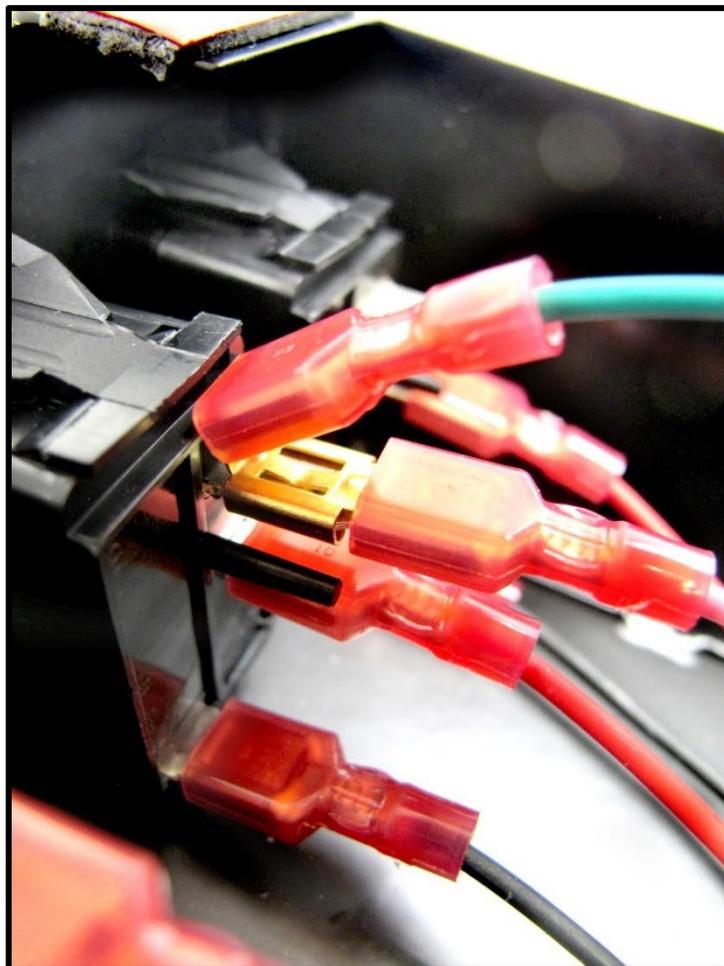
Step 44: Choose which switch you want to control multiple functions with, and remove the existing power output wire from the terminal on the bottom of each switch (**terminal #3**).



Step 45: Place on the **piggyback terminal**.

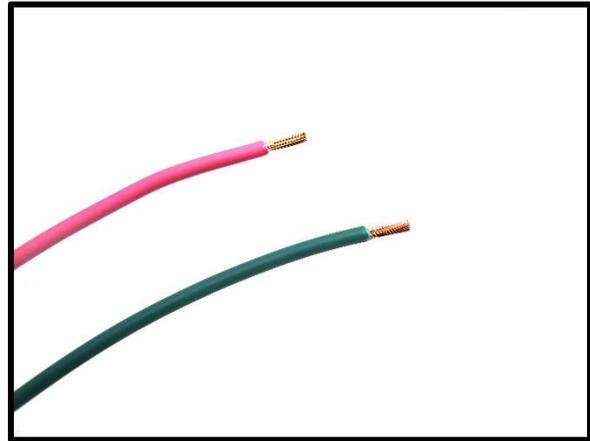
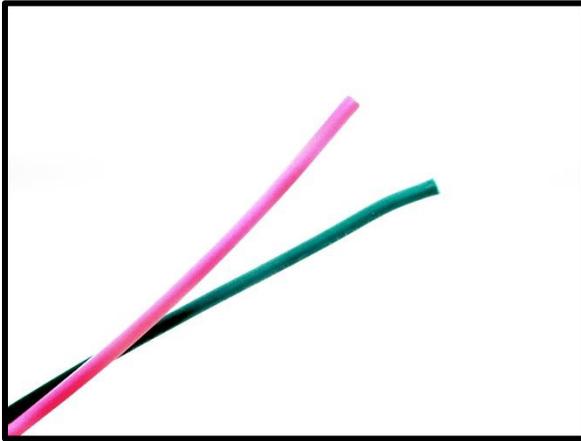


Step 46: Take the power output wire and an additional wire from the Switch Control pigtail and connect them to the **piggyback terminal**.

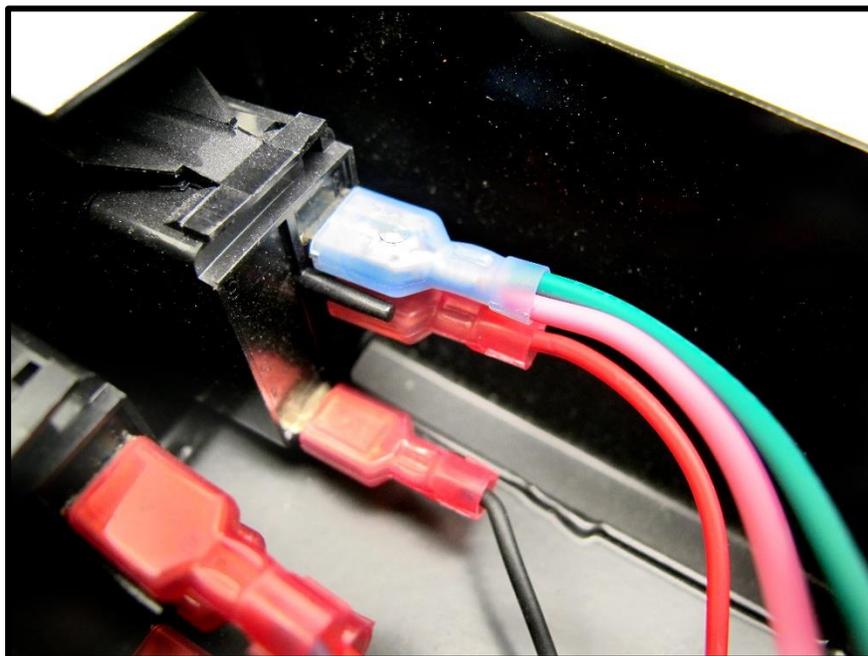
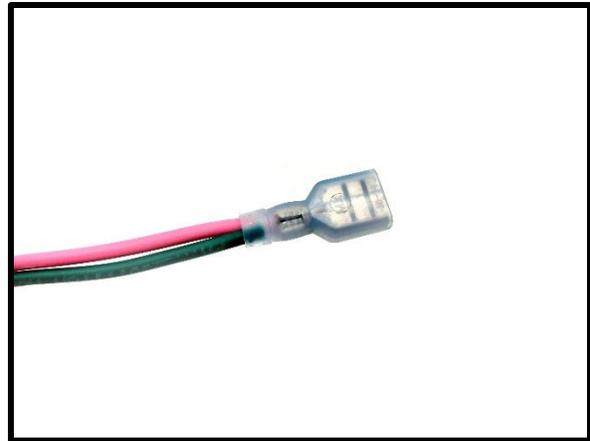
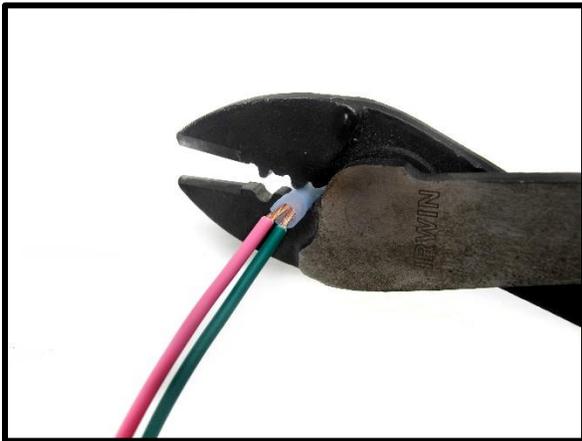


16-14 ga. 1/4" SPADE TERMINALS

Step 47: Locate the two wires from the Switch Control pigtail you wish to use and strip them 1/4".



Step 48: Place both wires in a 16-14 ga. 1/4" spade terminal and crimp. Then, connect the doubled wires to the power output terminal (terminal #3) on your switch.



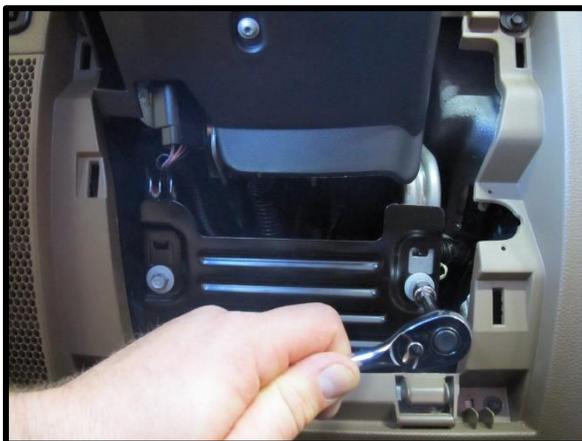
OPTIONAL: IGNITION SWITCH PIGTAIL INSTALLATION

THESE STEPS ILLUSTRATE HOW TO HOOK UP YOUR TRAIL ROCKER TO IGNITION SWITCHED POWER AND ARE COMPLETELY OPTIONAL. IF YOU WANT TO OPERATE YOUR SWITCHES WITH A CONSTANT POWER (AS SHIPPED), SKIP STEPS 49 - 66 AND MOVE ON TO THE RELAY OUTPUT WIRE SECTION ON [PAGE 50](#).

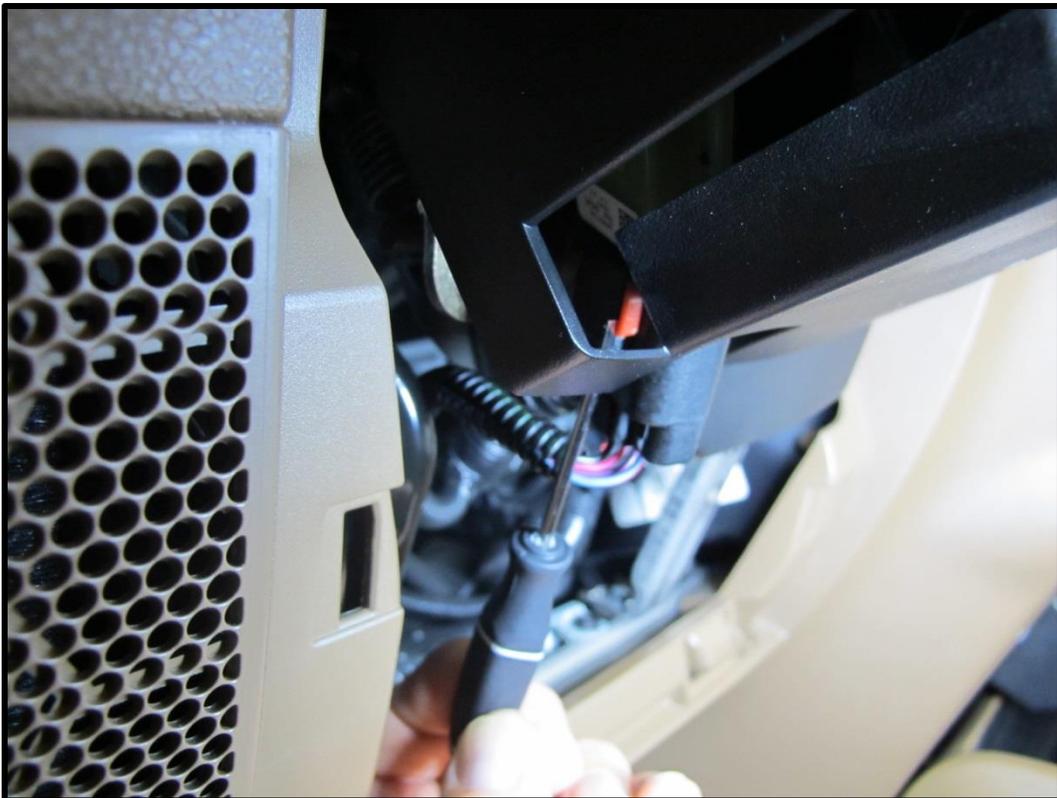
Step 49: Remove the panel below the steering column by carefully pulling from the top first.



Step 50: With the plastic panel out of the way, use a **10mm socket** or **wrench** to remove the 2 bolts holding the metal bracket in place.



Step 51: Locate the ignition switch connector and remove it. To do this, use a **small flathead screwdriver** to unlock the orange clip on the side of the connector.



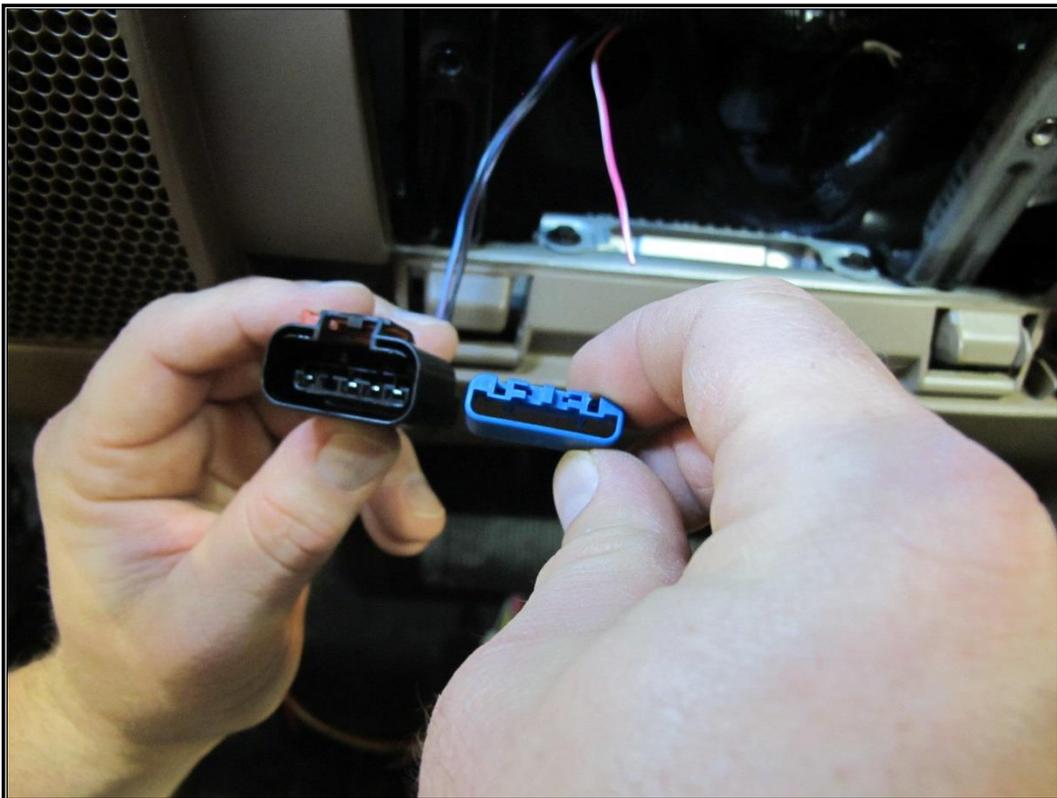
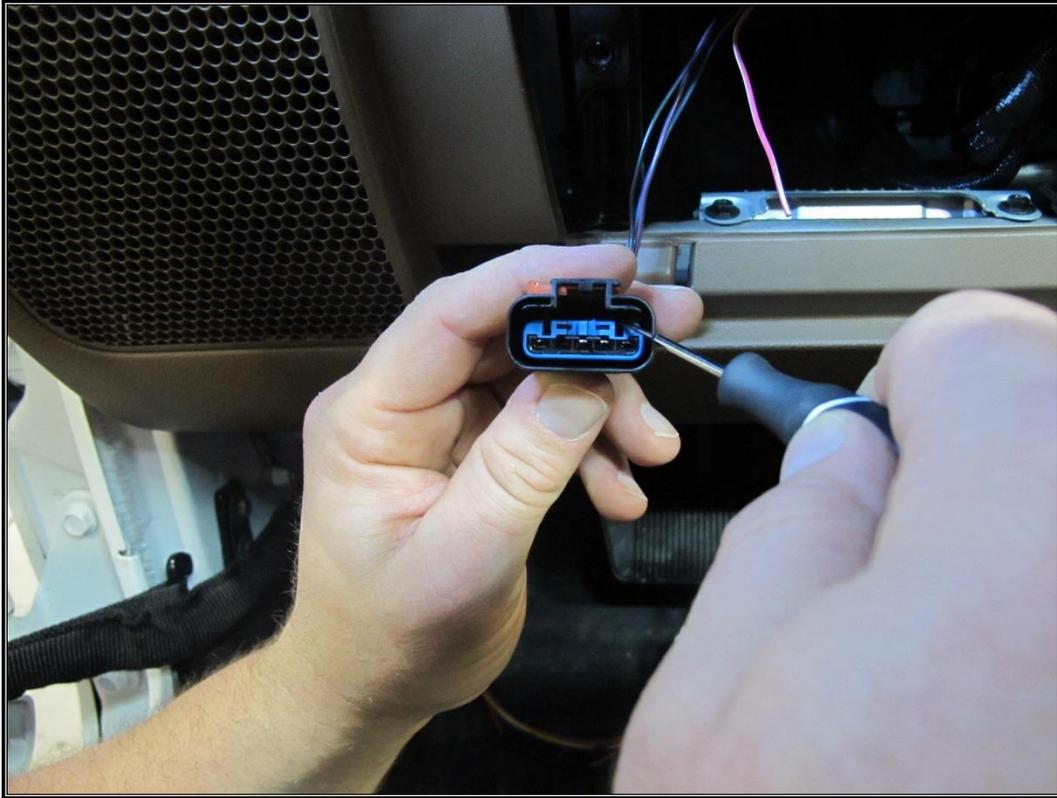
Step 52: With the orange clip unlocked, squeeze the bottom of the connector and disconnect it.



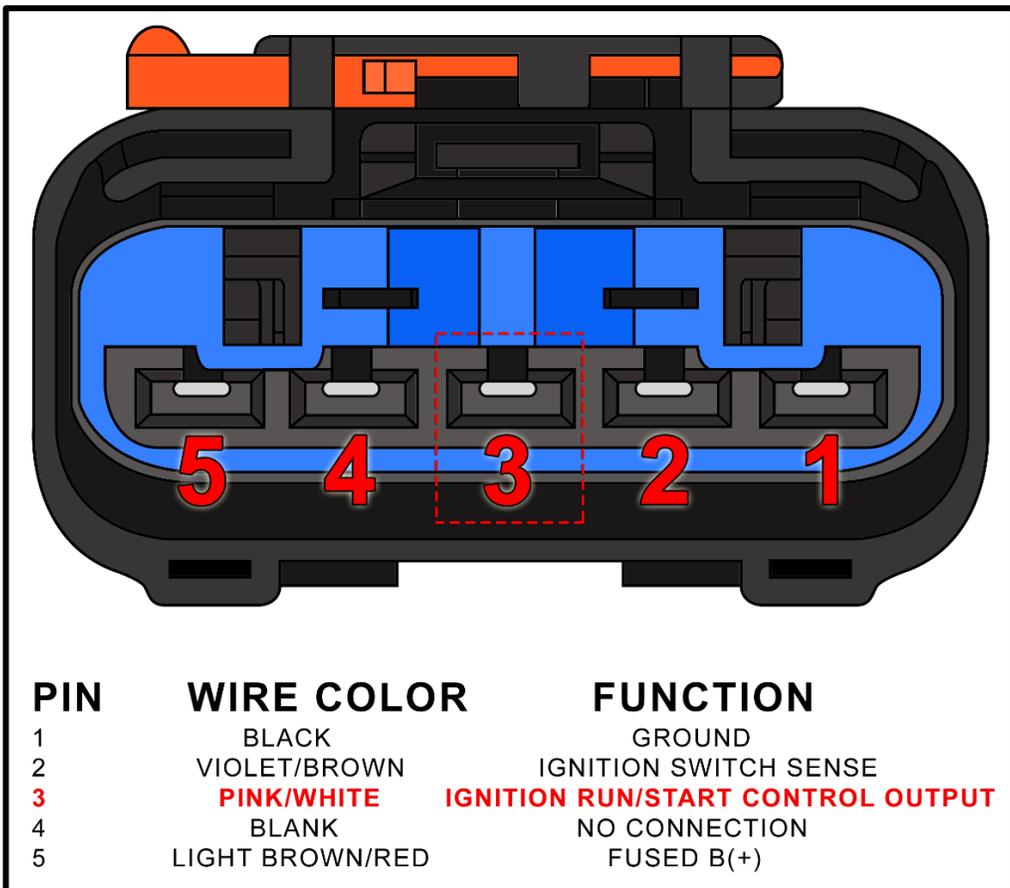
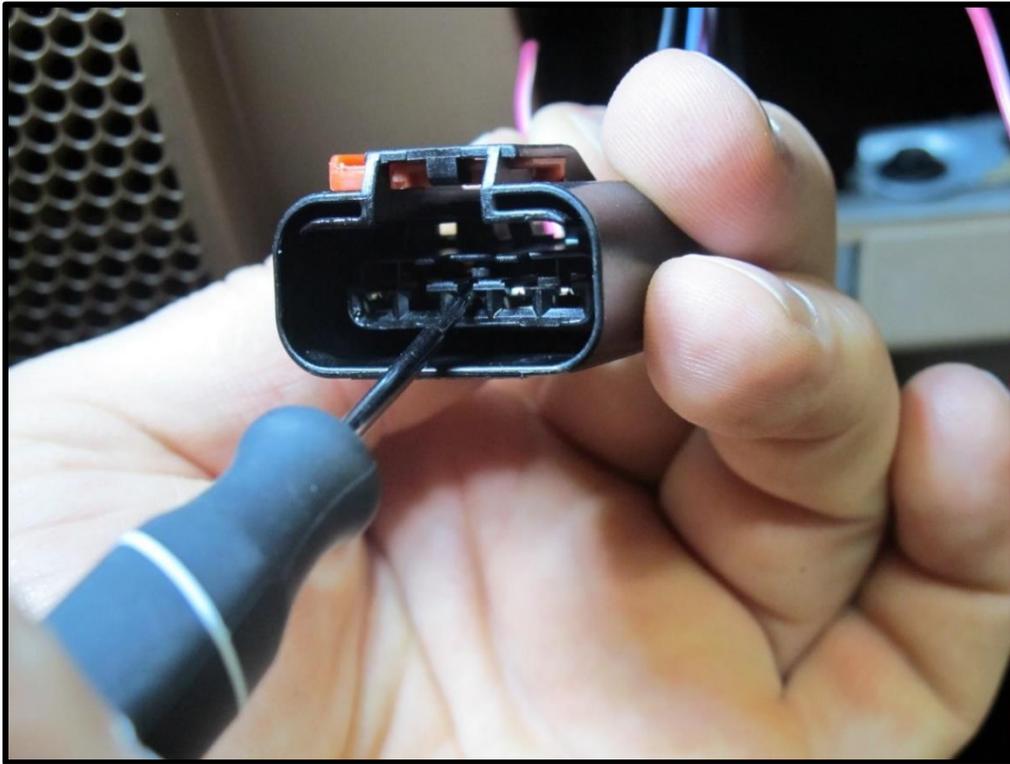
Step 53: Now, peel back the convoluted tubing covering the wires running to the ignition switch connector. Then, cut the **Pink/White**, 12V ignition wire about **2"** from the connector.



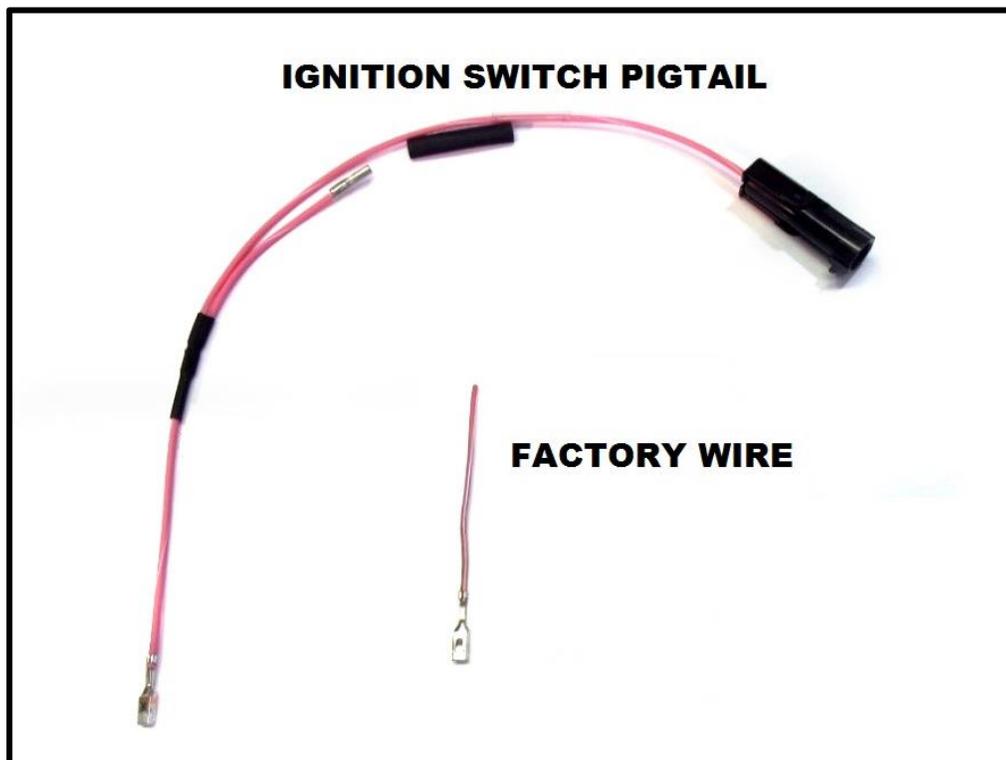
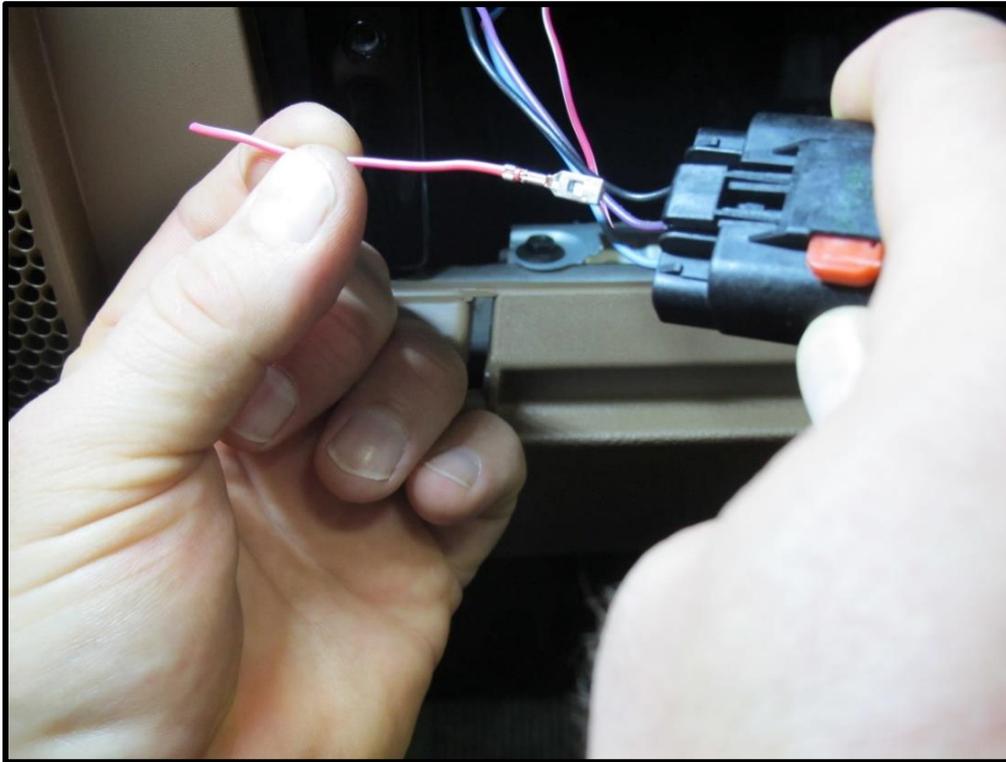
Step 54: Unpin the factory ignition switched 12V wire. To do this, first, use a **small screwdriver** or **pick** to remove the blue locking mechanism.



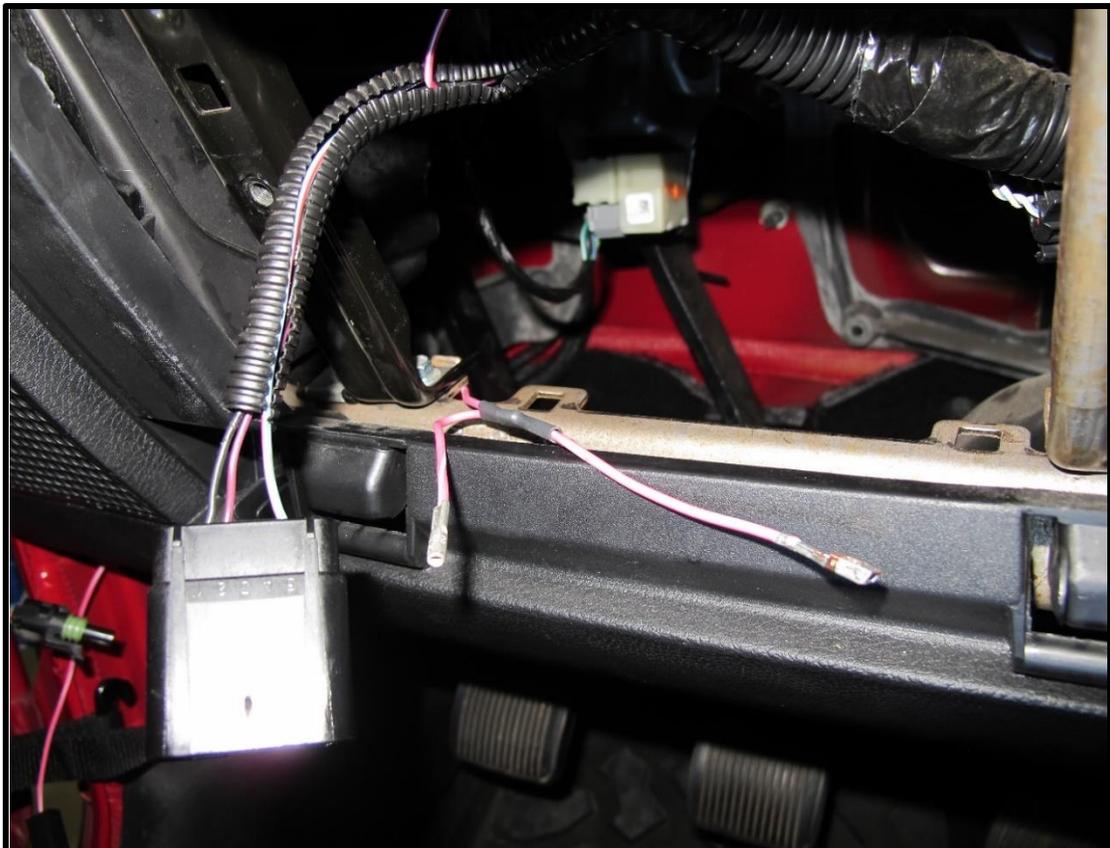
Step 55: With the blue lock removed, use a **small screwdriver** or **pick** to depress the lock underneath the middle terminal. (**Pin 3 = Ignition Switched 12V**)



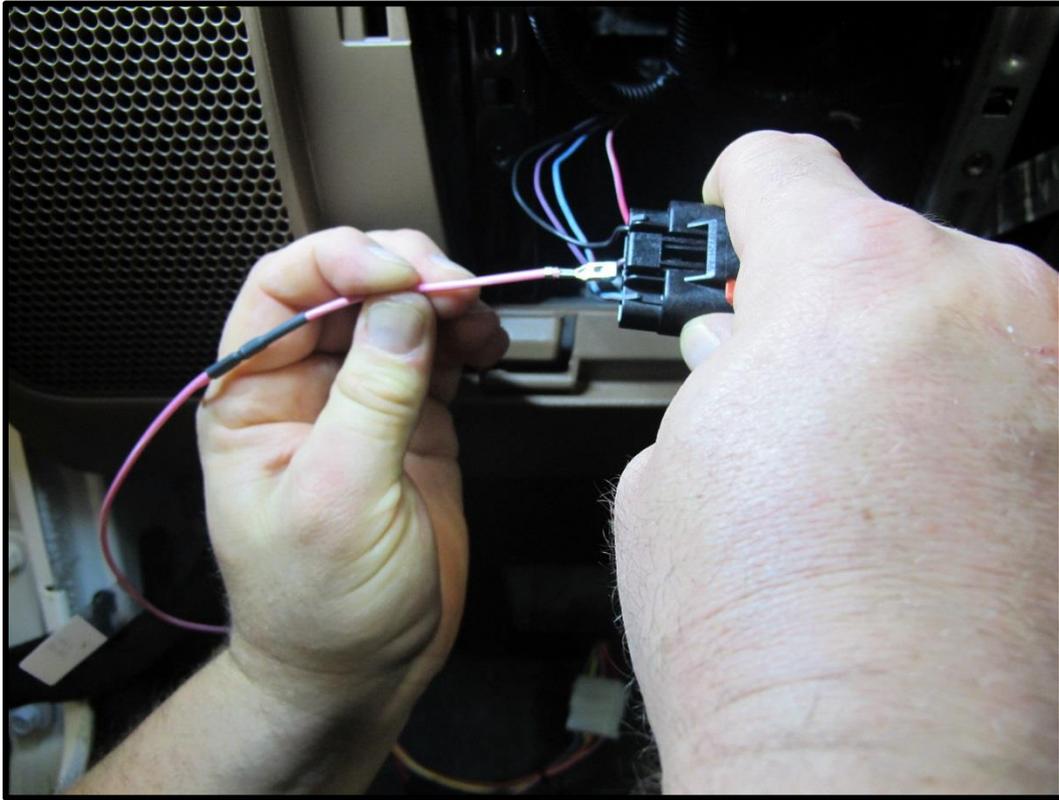
Step 56: With the terminal unlocked, pull the terminal out of the connector. Provided in your parts kit is a replacement **ignition pigtail** that will provide your Trail Rocker with ignition switched power while allowing you to terminate into the factory ignition switched 12V wire.



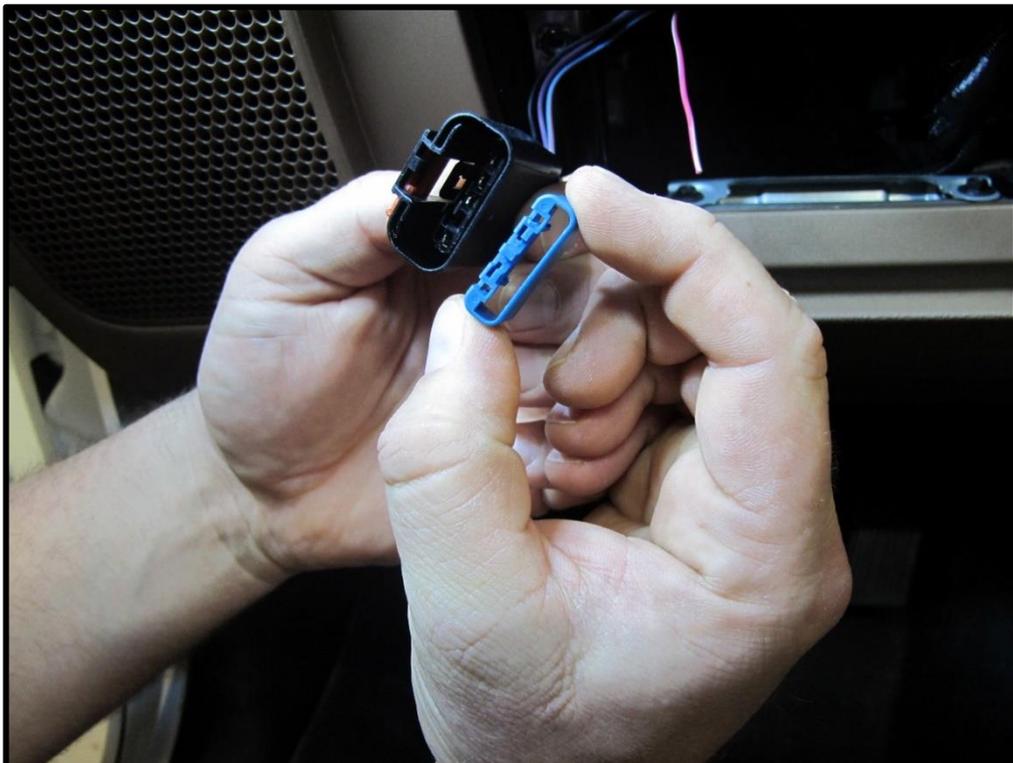
Step 57: Remove the driver side dash access panel and insert the new **ignition pigtail** thru the channel, to the center access, and route the **ignition pigtail** towards the factory ignition switch connector.



Step 58: Now, re-pin the factory ignition switch connector (**Pin #3**) with the new **ignition pigtail**.



Step 59: With the **ignition pigtail** fastened, reinstall the blue locking mechanism.



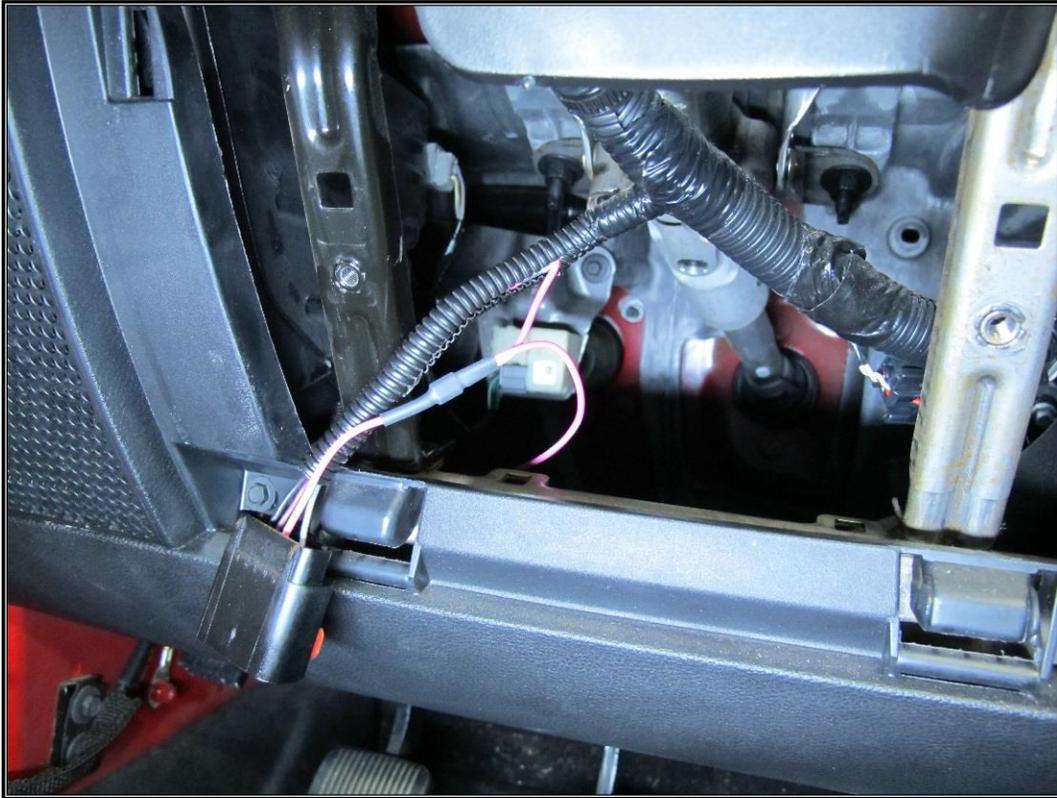
Step 60: Now, strip the factory pink/white, 22-gauge wire $\frac{3}{8}$ ". Once stripped, fold the copper wire in half to ensure a tight connection to the butt connector. Then, slide a piece of heat shrink over the factory wire and crimp it into the open end of the butt connector on the ignition pigtail. (NOTE: make sure the heat shrink is installed before crimping).



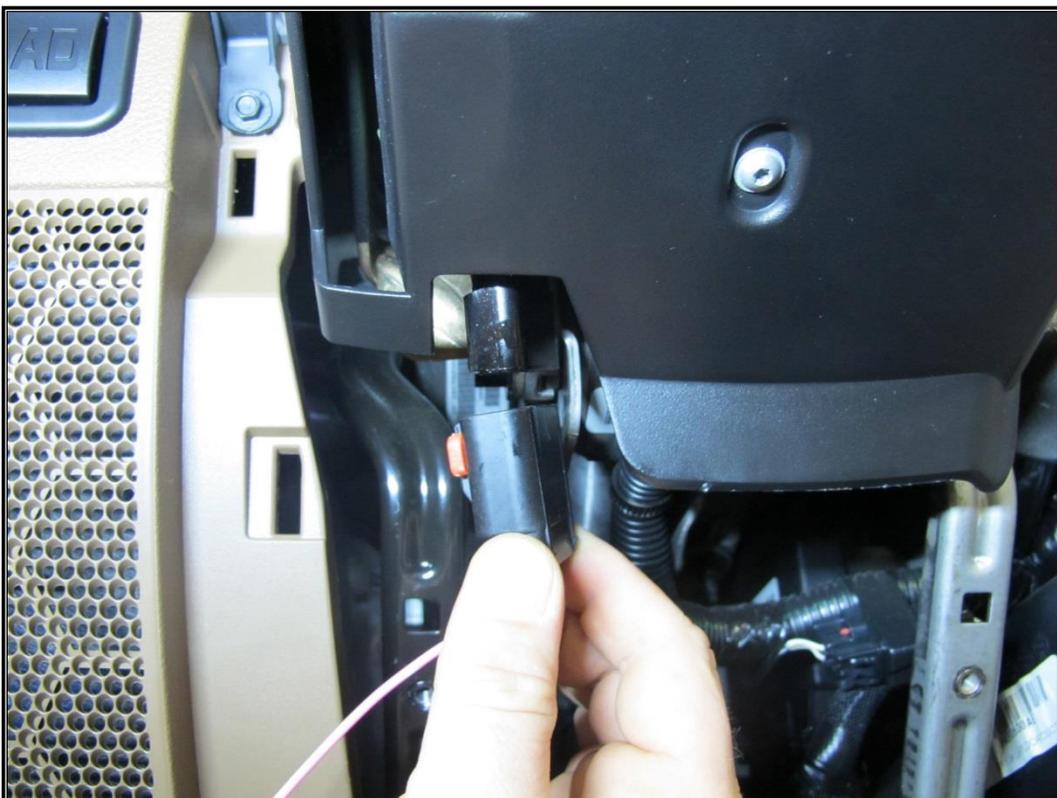
Step 61: After crimping, slide the heat shrink over the connection. Using a heat source, heat the heat shrink ensuring a tight wrap around the connector.



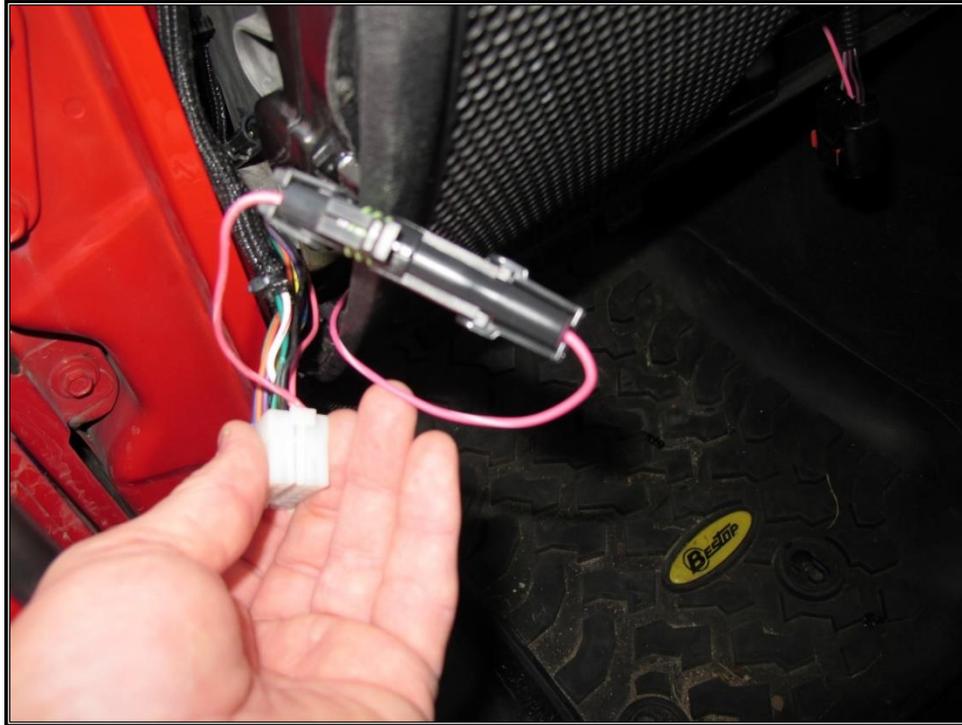
Step 62: Reinstall the factory convoluted tubing over the factory wire.



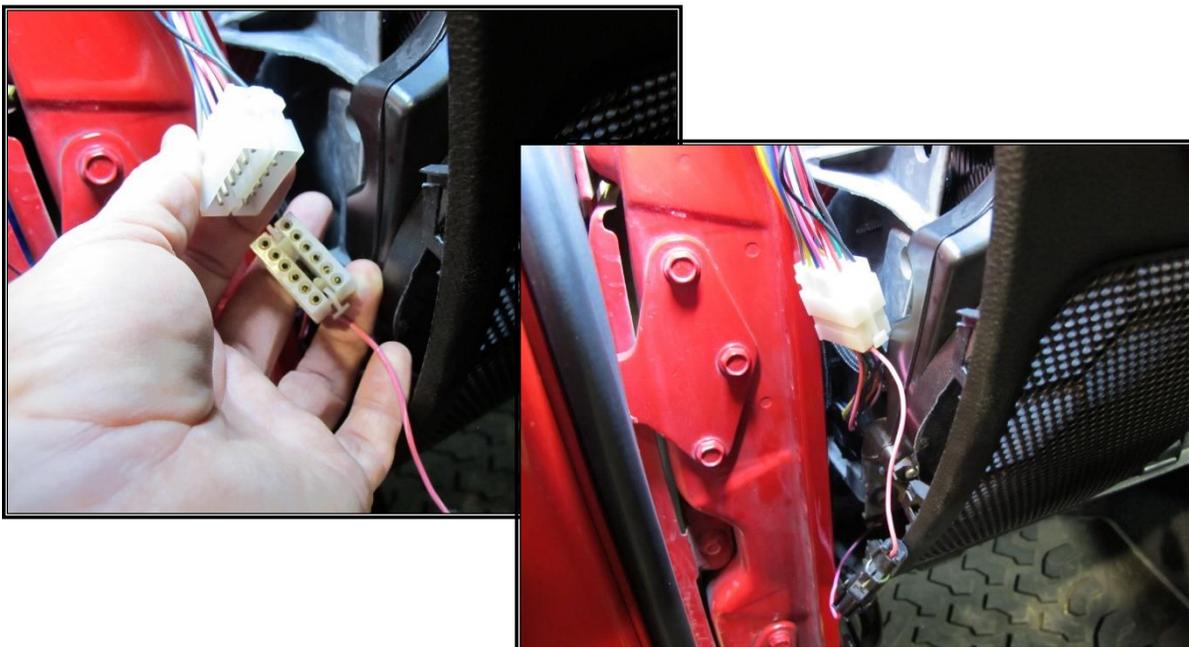
Step 63: Reinstall the factory ignition switch connector, and lock it into place.



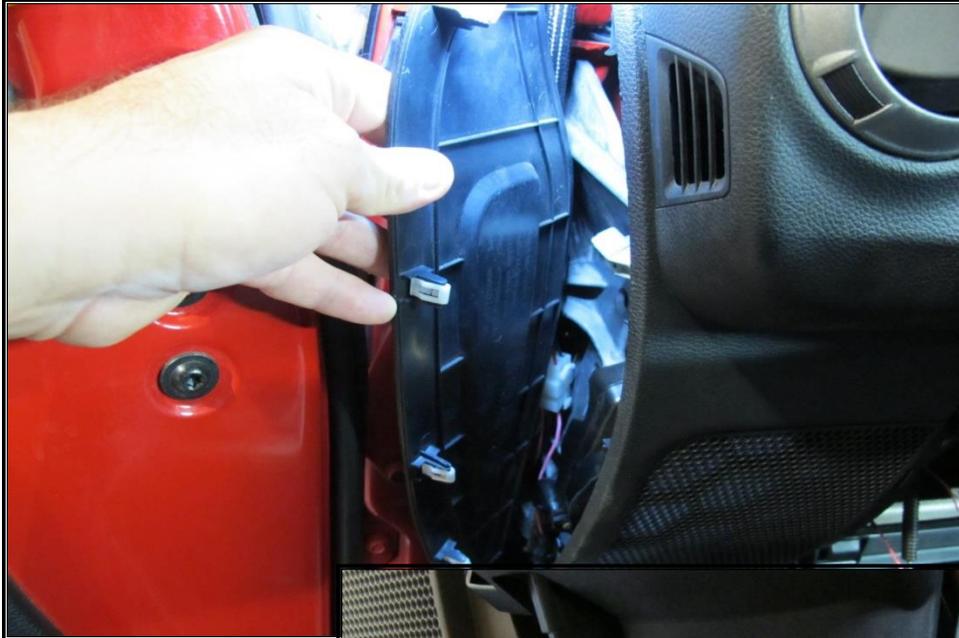
Step 64: Now, connect the weather pack connector from the **ignition pigtail** to the weather pack connector on the switch control wires coming from the **Fuse/Relay Center**. (Note: for ease of installation you may want to unplug the **Fuse/Relay Center's** switch control wire connector from the **Switch Control Panel**.)



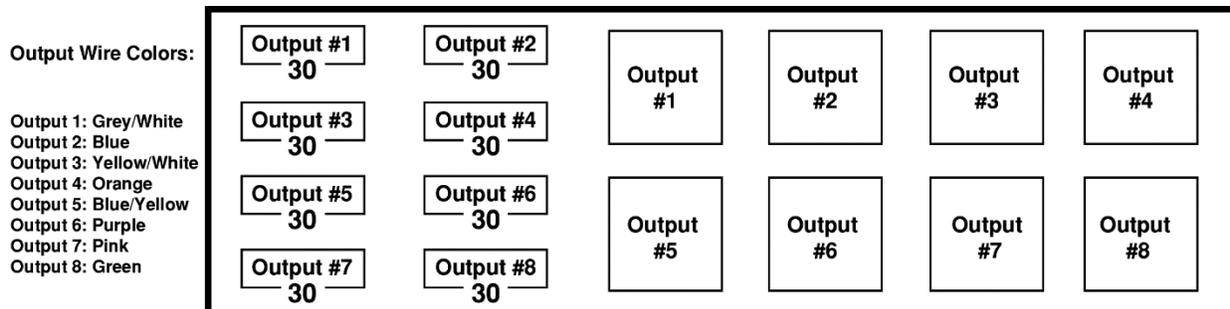
Step 65: If you do disconnect the **Switch Control pigtail** from the **Fuse/Relay Center's** switch control wire connector, reconnect them now. Stow the wiring harness neatly away, and secure with a zip-ties if needed.



Step 66: Reinstall the driver side access panel and then replace the metal bracket and plastic access panel beneath steering column.



RELAY OUTPUT WIRES



Route these wires to the location of your components. Ensure to route them safely, and avoid high heat areas, moving parts, and sharp edges. Painless recommends using grommets for any wires passing through metal to avoid wearing through the wire insulation and causing arcing. Make sure any accessories and/or components you install are properly grounded.

See **Steps 67 - 71** starting on [page 51](#) for a common example on connecting the relay output wires to most accessories.

Relay Output Wire Color Diagram:

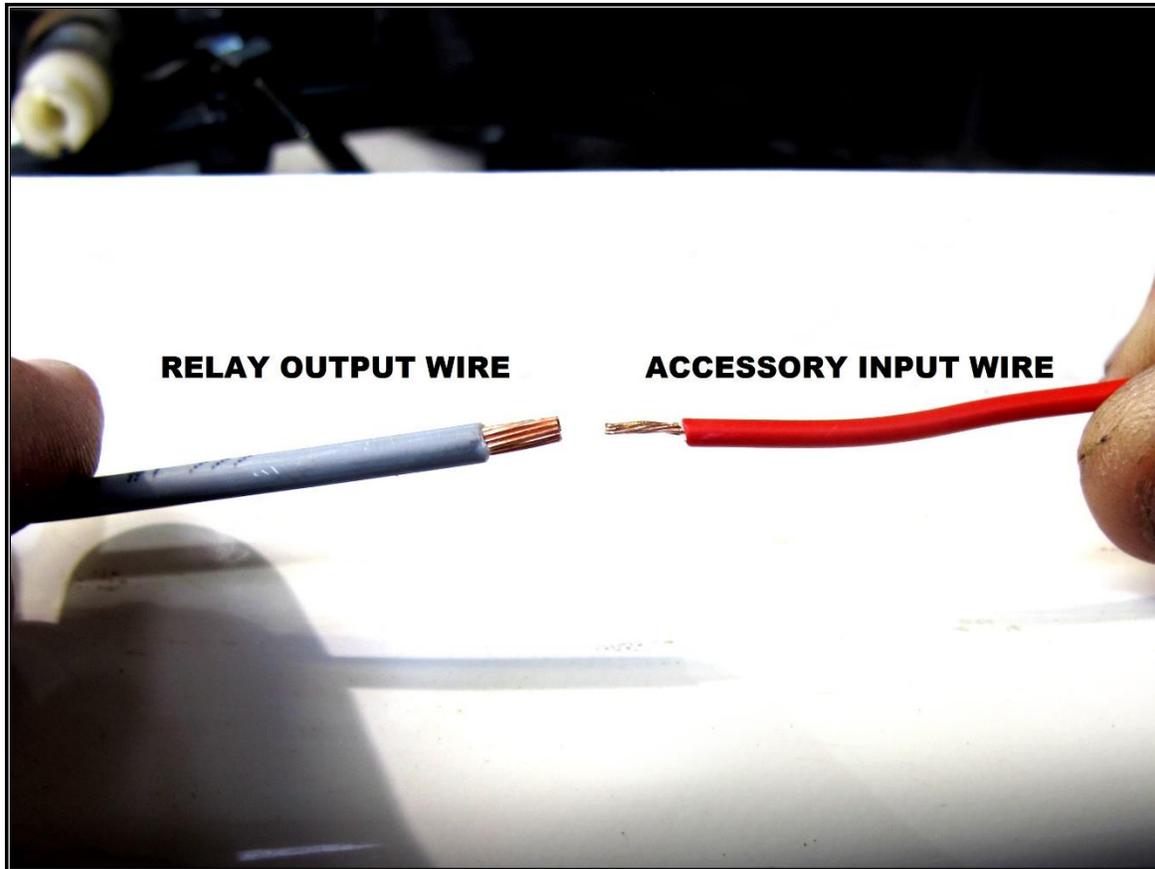
- Wire #1: Grey/White
- Wire #2: Blue
- Wire #3: Yellow/White
- Wire #4: Orange
- Wire #5: Blue/Yellow
- Wire #6: Purple
- Wire #7: Pink
- Wire #8: Green

Winch Control wires:

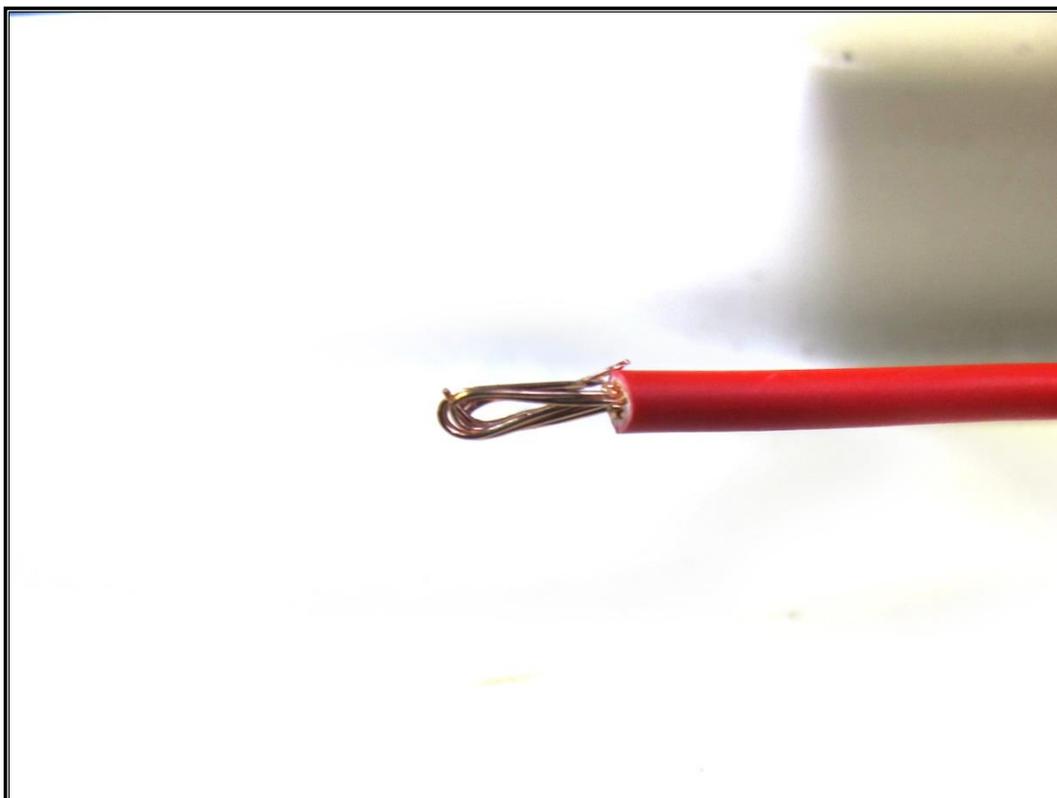
- Winch Control In: White/Red
- Winch Control Out: Brown/White

OPTIONAL: If you wish to double the relay output wires on a single switch, thus allowing you to control 2 accessories with 1 switch, then see [pages 35 - 37](#) for a step-by-step tutorial on achieving this. For winch switch installation, see [page 54](#).

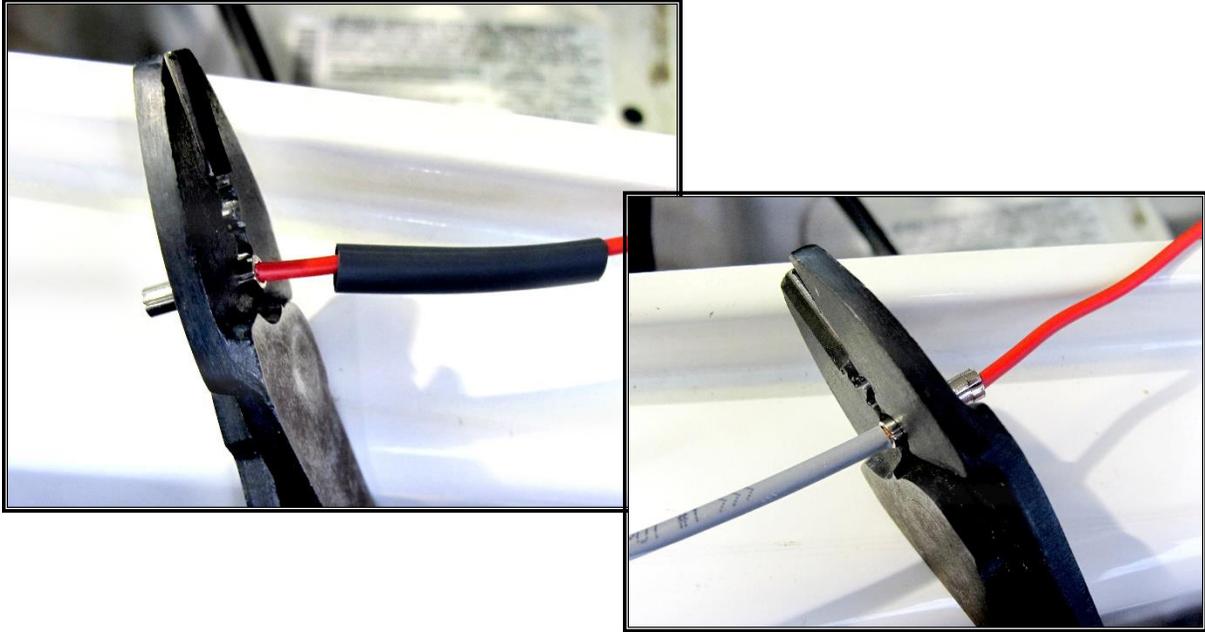
Step 67: Locate the relay output wire from the Fuse/Relay Center you wish to use. Then, locate the input wire on the accessory you are installing.



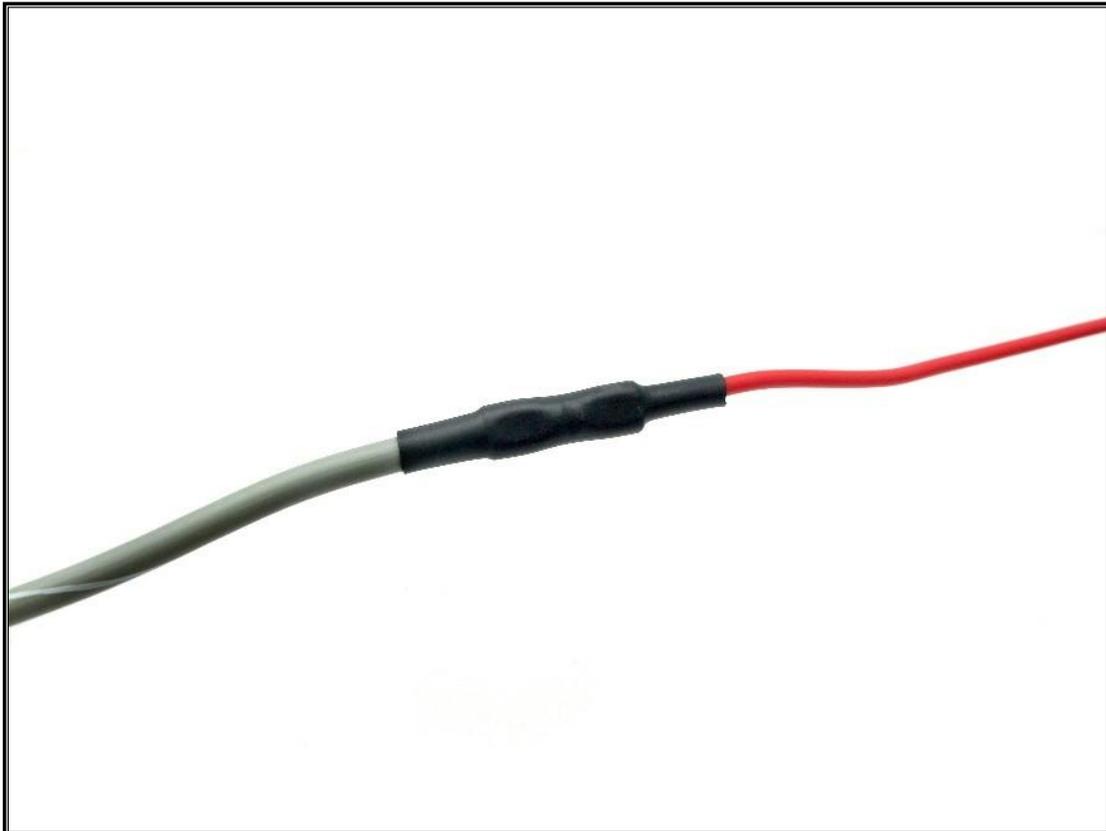
Step 68: Double up the accessory's input wire if necessary.



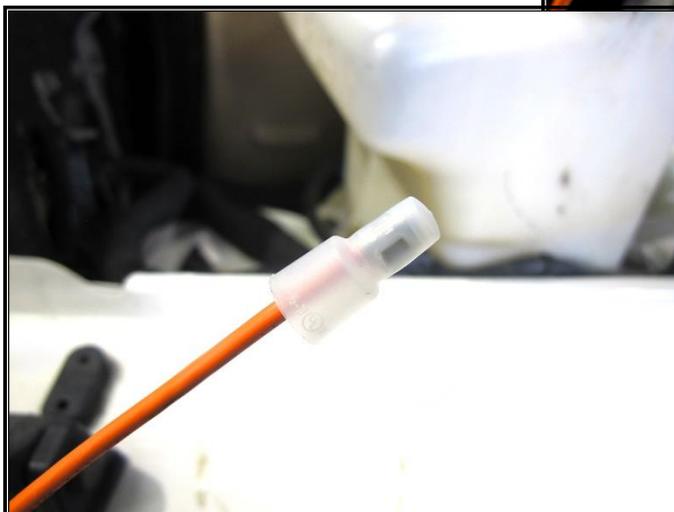
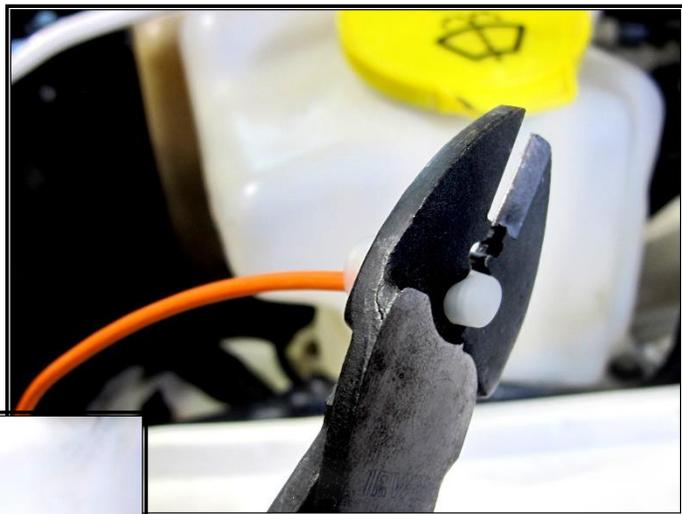
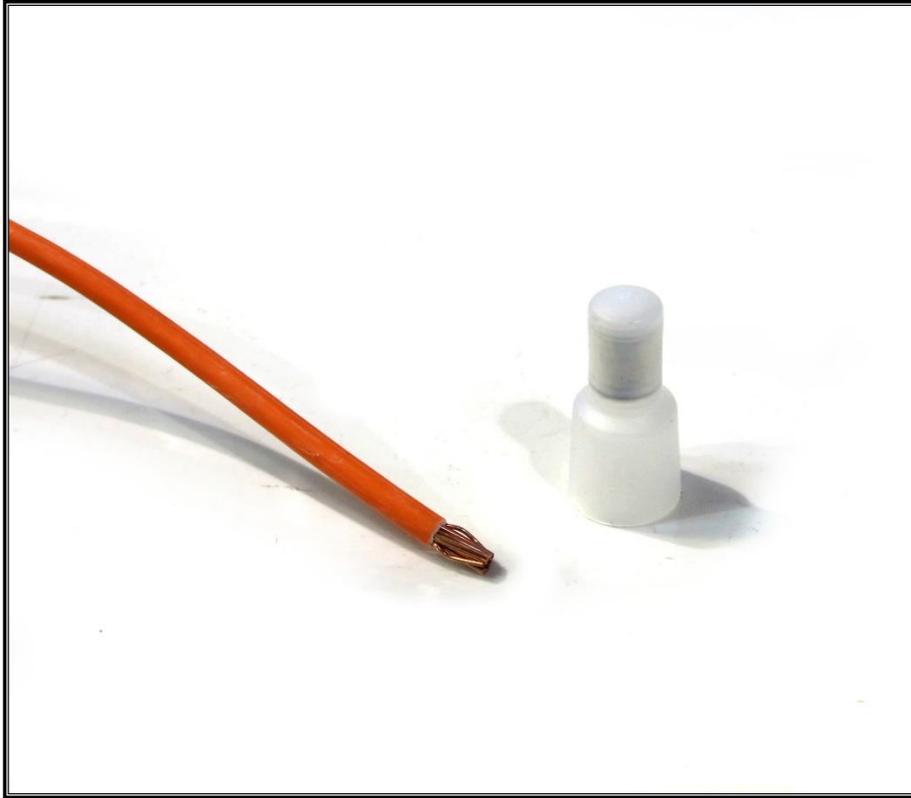
Step 69: Slide a piece of heat shrink from the included parts kit over the accessory wire. Then, use an un-insulated butt connector to crimp together the accessory wire with the relay output wire.



Step 70: Secure the heat-shrink over the connection.



Step 71: Cap all unused relay output wires by crimping on the provided insulated wire caps. Then store the extra wires out of the way in the most convenient way possible.



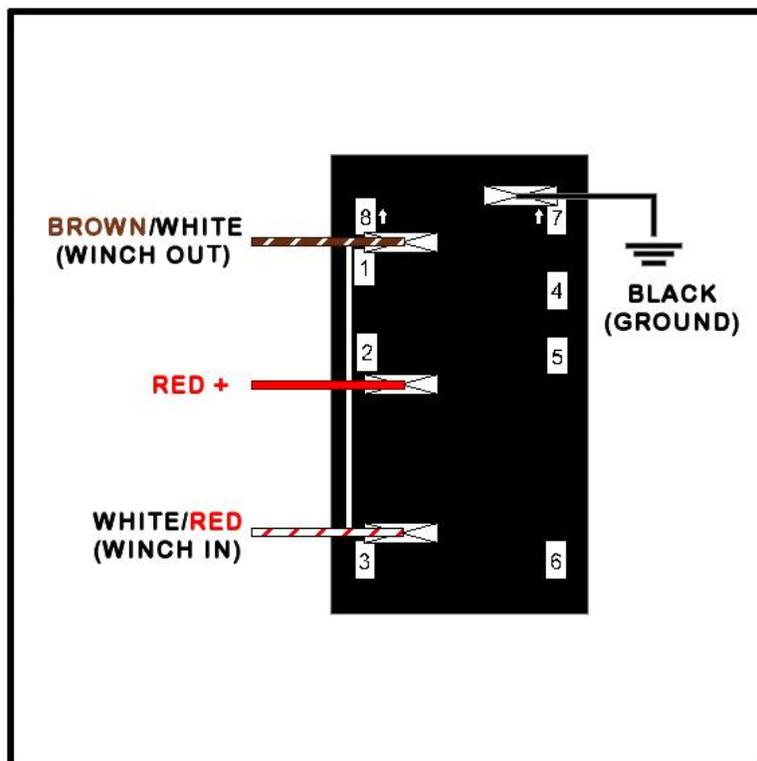
OPTIONAL: PAINLESS PART#: 57150 - WINCH

CONTROL ADD-ON KIT

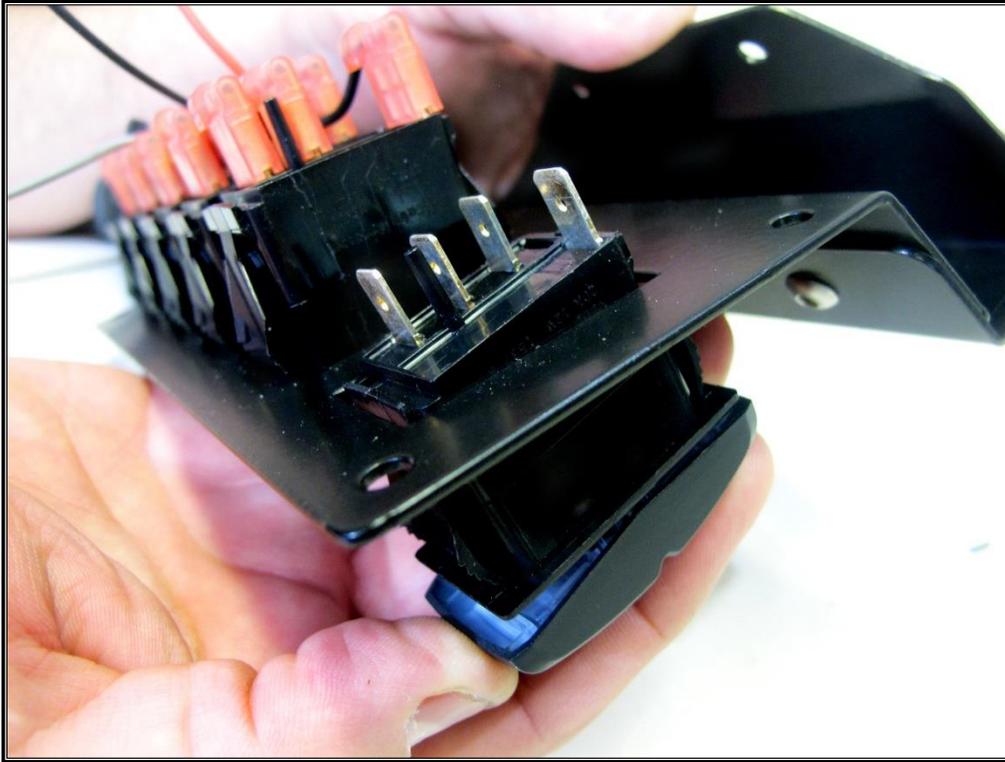
Painless offers a Winch Control Add-on Kit ([Painless Part #: 57150](http://www.painlessperformance.com), available online at www.painlessperformance.com). Steps 72 - 75 show you how to install a Winch Control Add-on Kit and connect the control wires to the switch.



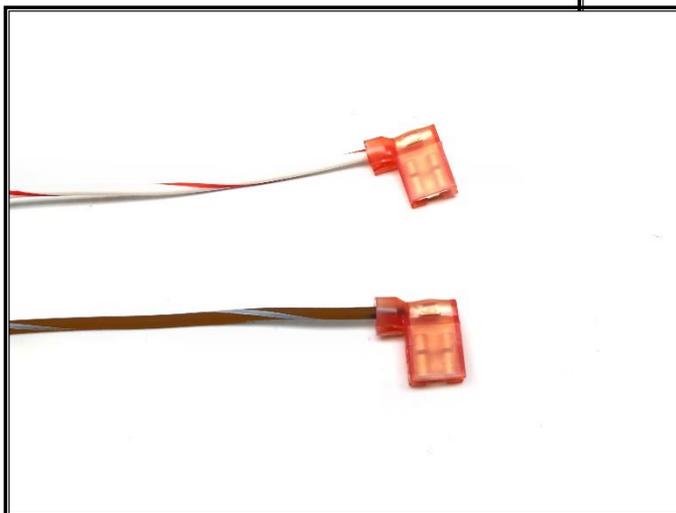
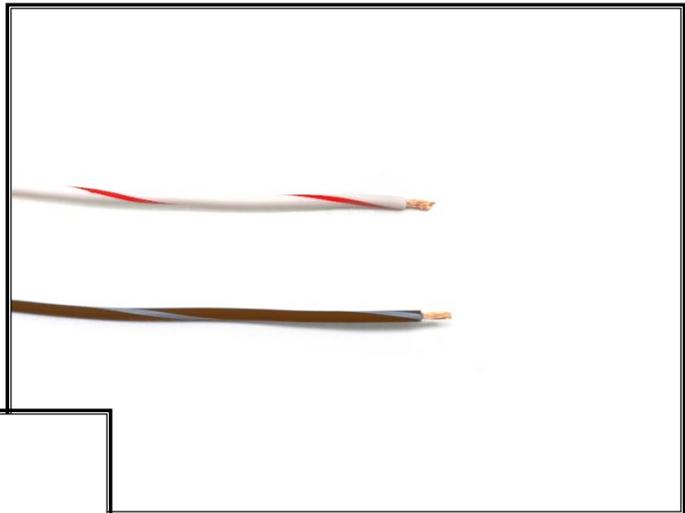
Step 72: Before connecting the wires to the Winch Control Add-on Kit, take time to familiarize yourself with the wiring diagram below.



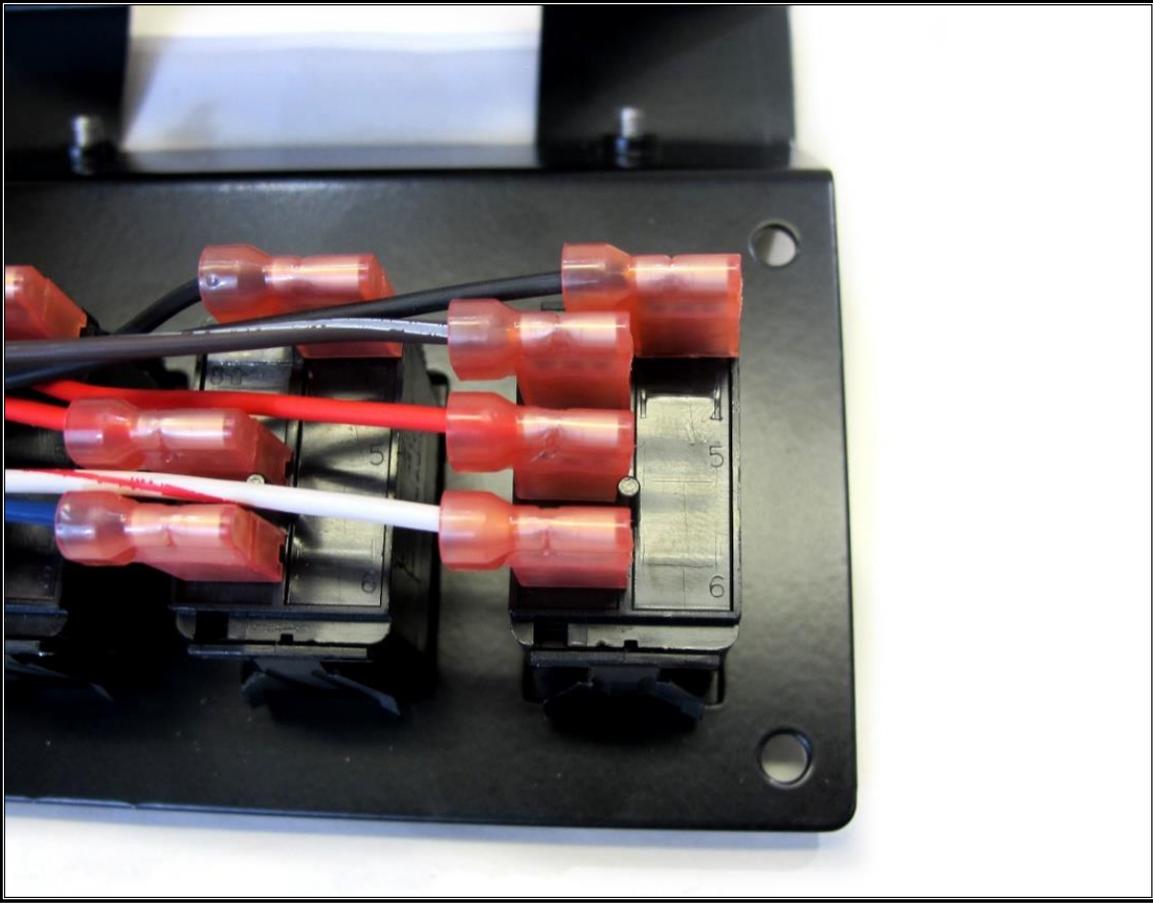
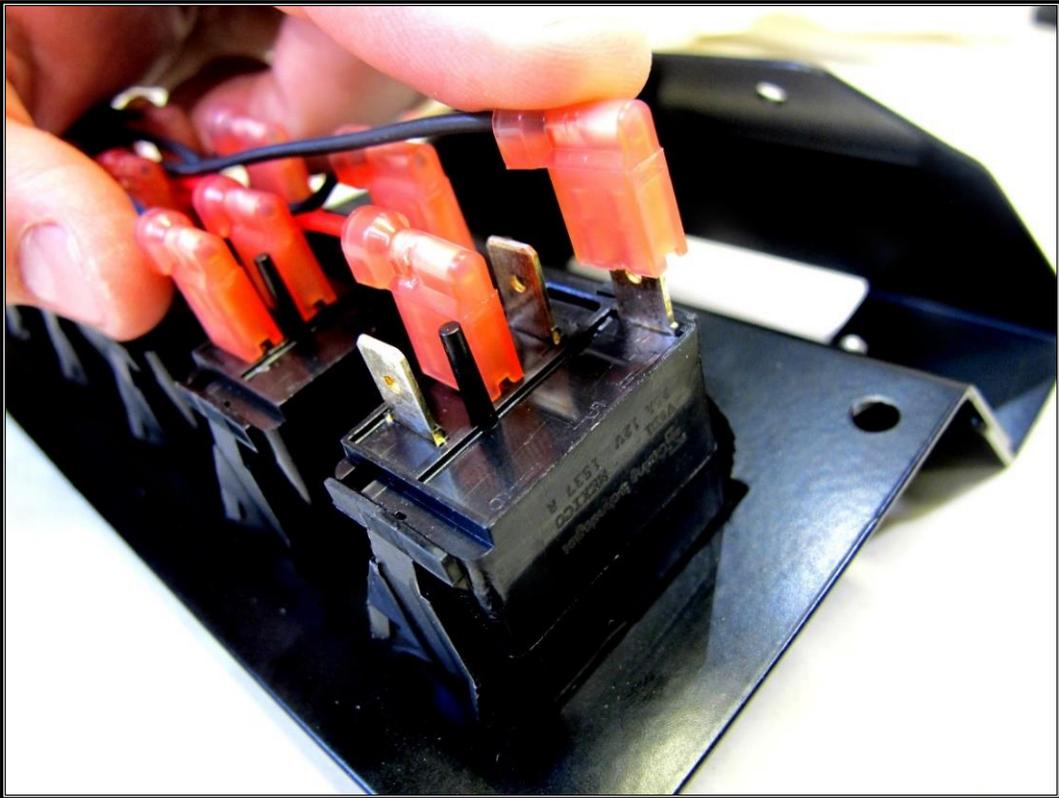
Step 73: Insert the Winch Control Add-on Kit into the empty socket you are using.



Step 74: Locate the winch control wires on the Switch Control pigtail, and crimp on the spade terminals found in your parts kit.
WHITE/RED = WINCH IN, BROWN/WHITE = WINCH OUT



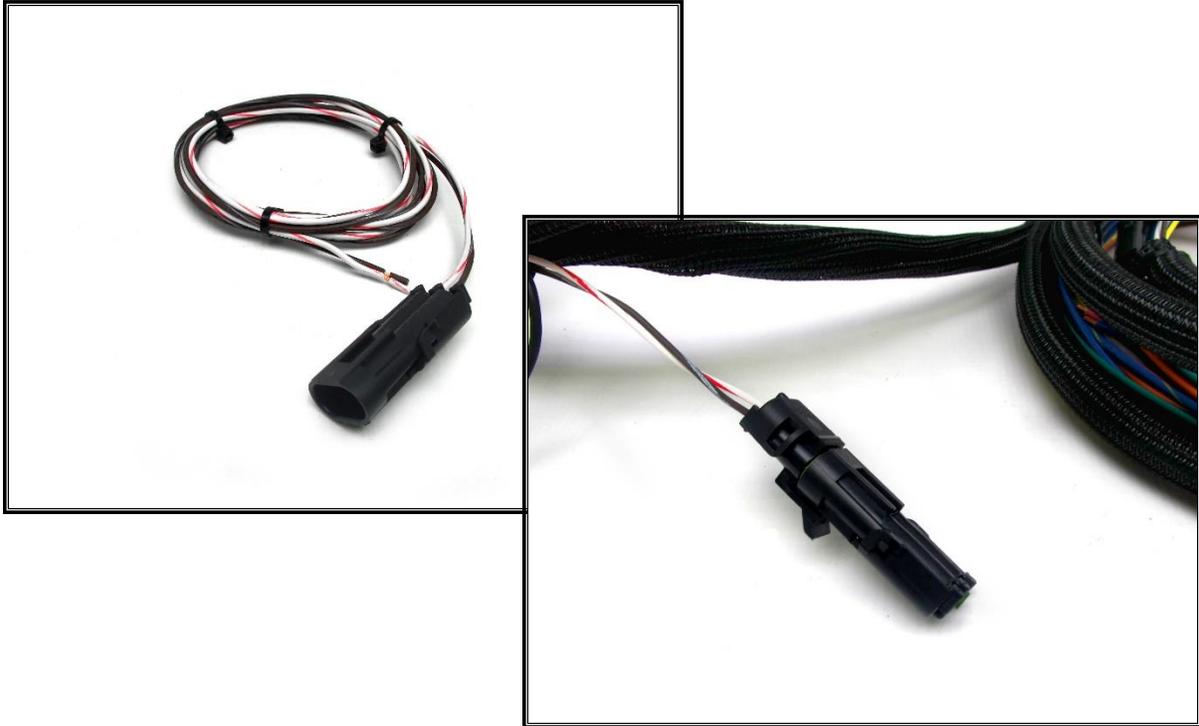
Step 75: Connect the power, ground, and control wires to the Winch Control Add-on Kit as seen below.



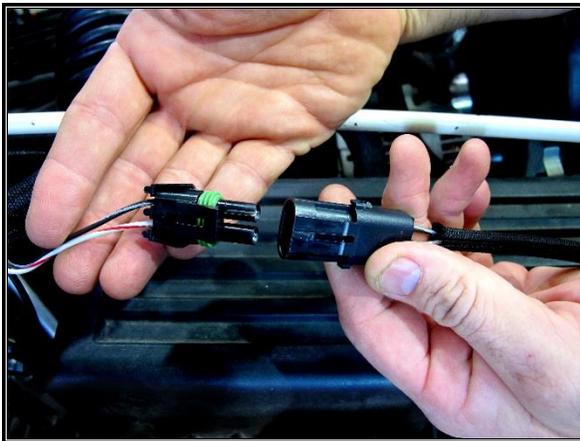
OPTIONAL: WINCH PIGTAIL

If you are hooking up your winch to your Trail Rocker System, read the following steps for attaching the included winch pigtail.

Step 76: Locate the **winch pigtail** included in your parts kit. Then locate the winch connector on your Fuse/Relay Center.



Step 77: Remove the cap from the winch connector on the Fuse/Relay Center. Then plug in the **winch pigtail** and route the wires safely to your winch.



Wiring diagrams for specific winch set-ups can be found at <http://www.painlessperformance.com/schematics> under the Trail Rocker section.

FINAL STEPS

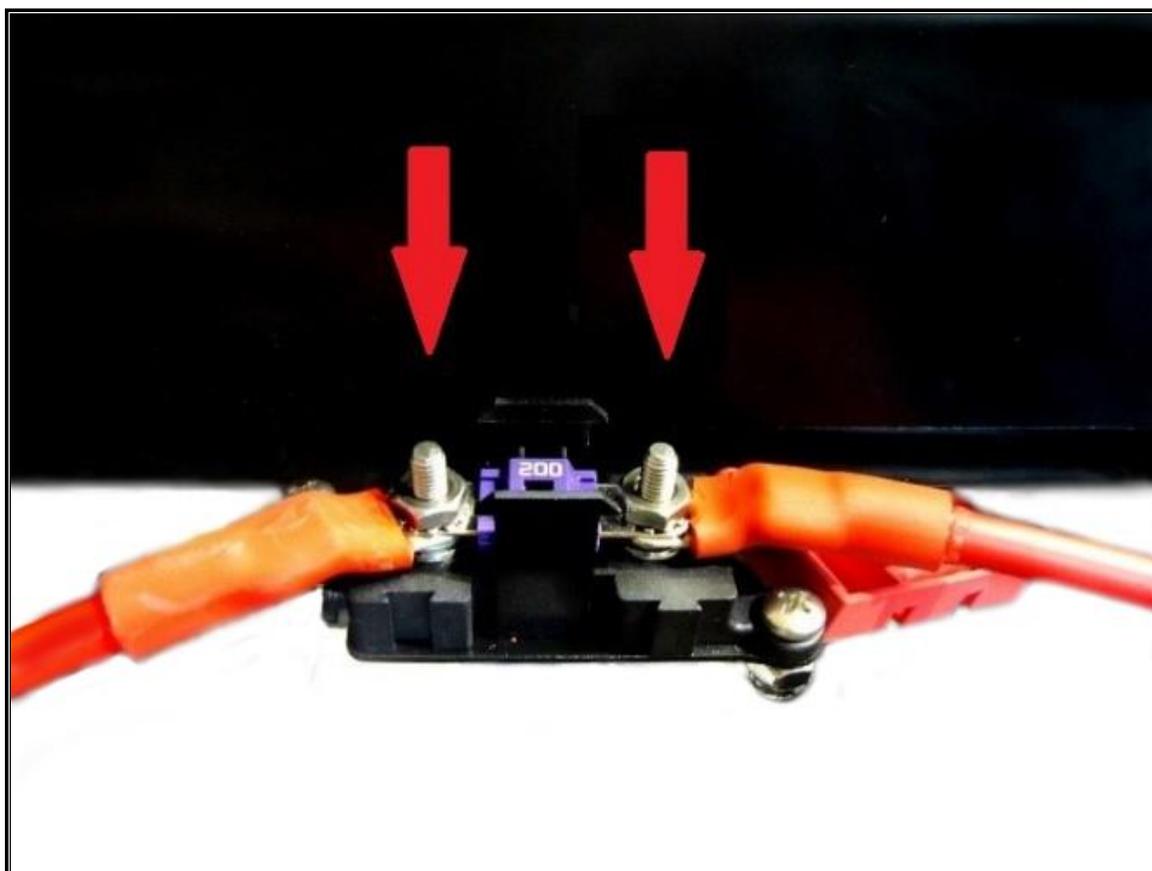
Step 78: After completing the previous installation steps, you may now reconnect your battery terminals. Locate the **6-gauge, unterminated, red cable** coming from the **Fuse/Relay Center**, **heat shrink**, and the appropriate sized (for your particular application) **non-insulated ring terminal**.



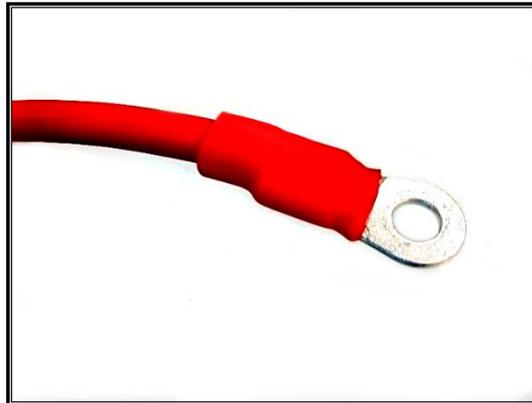
Step 79: Notice that the **6-gauge red cable** does not have an eyelet on one end. This is so you can cut the cable to the length you need for your specific application. Mark the length you need to route the cable to the positive terminal. Cut and strip the wire about **1/2"**.



Step 80: Once the cable is stripped, remove it from the **Fuse/Relay Center** in order to crimp on the included **ring terminal** from your parts kit. To remove the cable lift up the fuse cover on the **Fuse/Relay Center** bracket. Then, remove the **2 nuts** and **200-amp MIDI fuse** holding the cable in place.



Step 81: These **ring terminals** can be difficult to crimp. It can be done with a chisel and hammer or with a crimping tool like the one below. These crimping tools can be found at your local parts store or online. Once the terminal is crimped, secure it with about **1" of heat shrink**.



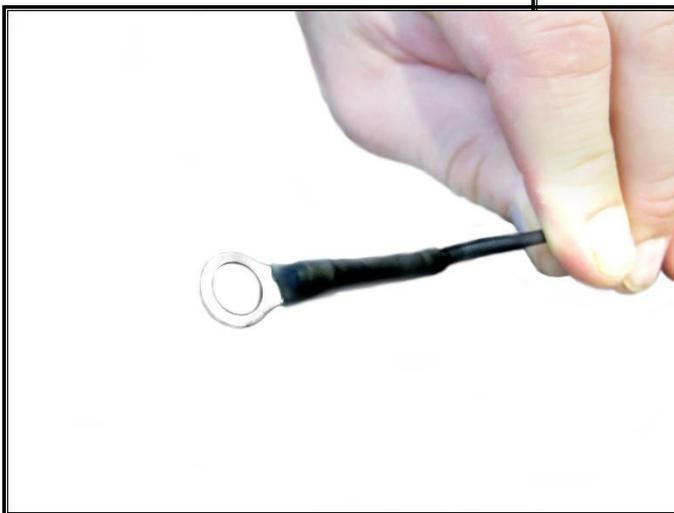
Step 82: Next, re-install the cable and **200-amp MIDI fuse** to the **Fuse/Relay Center** and connect it to the positive battery terminal. Then, route the ground wire coming from the **Fuse/Relay Center** to the negative battery terminal.



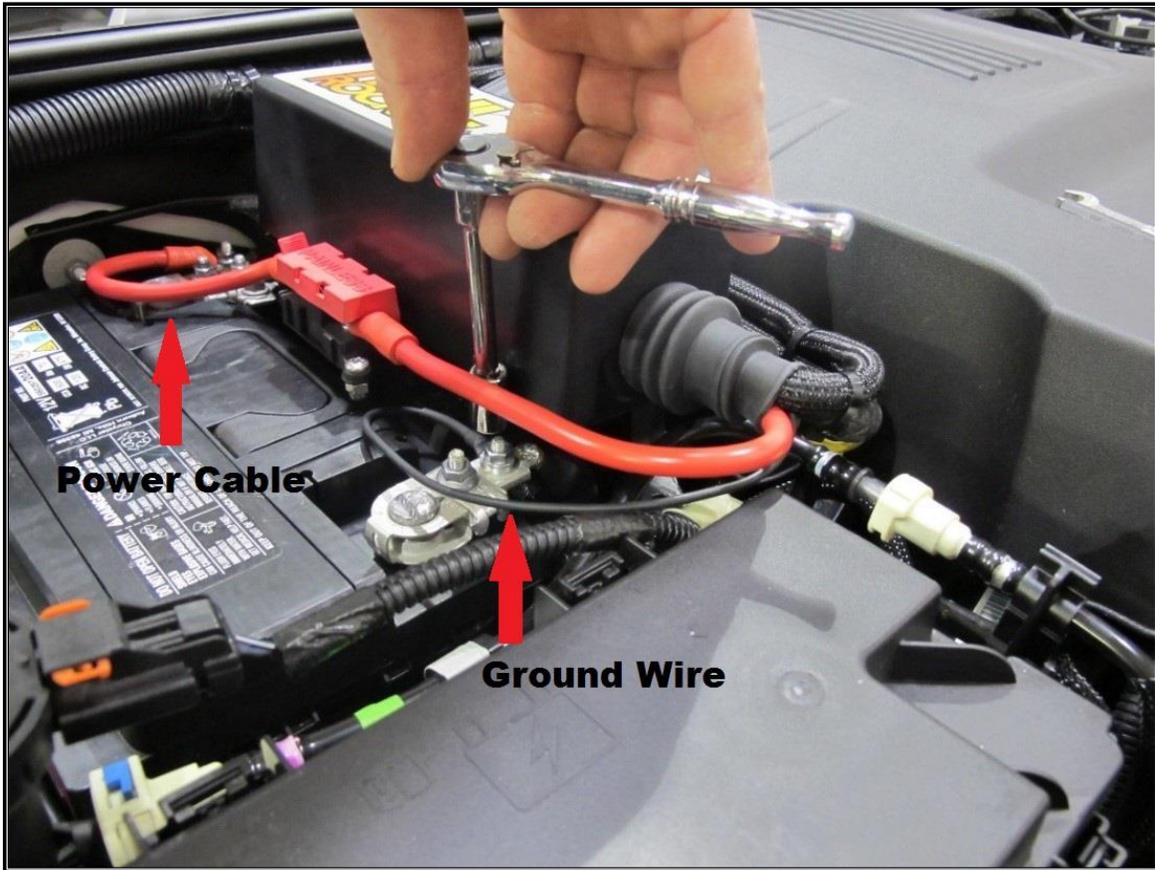
Step 83: Locate (1) ¼” black heat shrink and (1) 16-14 ga. non-insulated ring terminal. Strip the wire about ¼” and slide the heat shrink over it.



Step 84: Crimp on the ring terminal and secure it with the heat shrink.



Step 85: Hook the terminals back up to your battery. Connect the red cable to the positive terminal and the ground wire to the negative terminal.

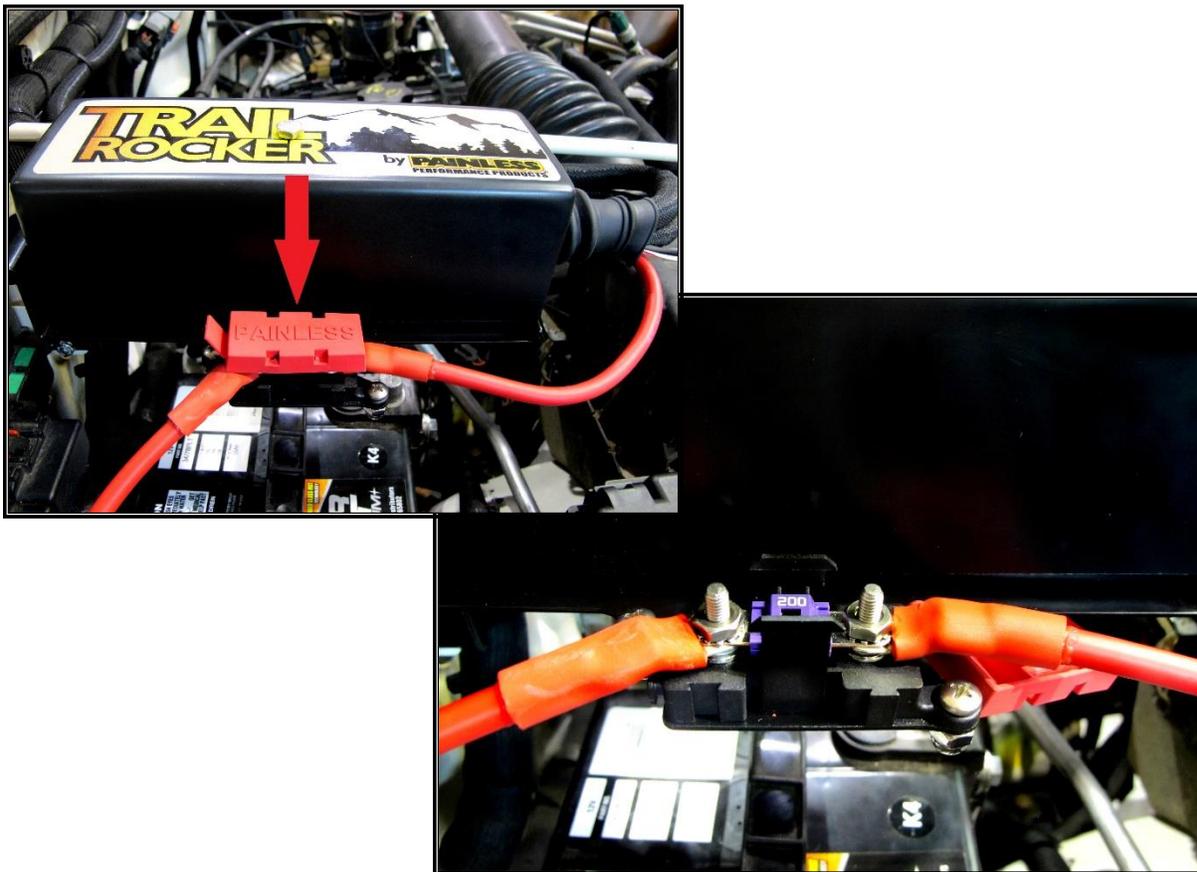


Step 86: With the battery connected, you can now test out and enjoy your new Trail Rocker!



FUSE PLACEMENT

The 200 amp midi fuse is located on the fuse block on the side of the Fuse/Relay Center mounting bracket.



The Fuse/Relay Center contains eight 30 amp ATO fuses, and can be accessed by removing the lid from the Fuse/Relay Center.



Trail Rocker Fuse Centers are equipped with 8 Indicator Fuses. These fuses are equipped with an LED light that will turn on when the fuse is blown, thus indicating when the fuse needs to be replaced.



Painless Performance Limited Warranty **and Return Policy**

Chassis harnesses, fuel injection harnesses, and Trail Rocker units are covered under a lifetime warranty.

All other products manufactured and/or sold by Painless Performance are warranted to the original purchaser to be free from defects in material and workmanship under normal use. Painless Performance will repair or replace defective products without charge during the first 12 months from the purchase date. No products will be considered for warranty without a copy of the purchase receipt showing the sellers name, address and date of purchase. You must return the product to the dealer you purchased it from to initiate warranty procedures.

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