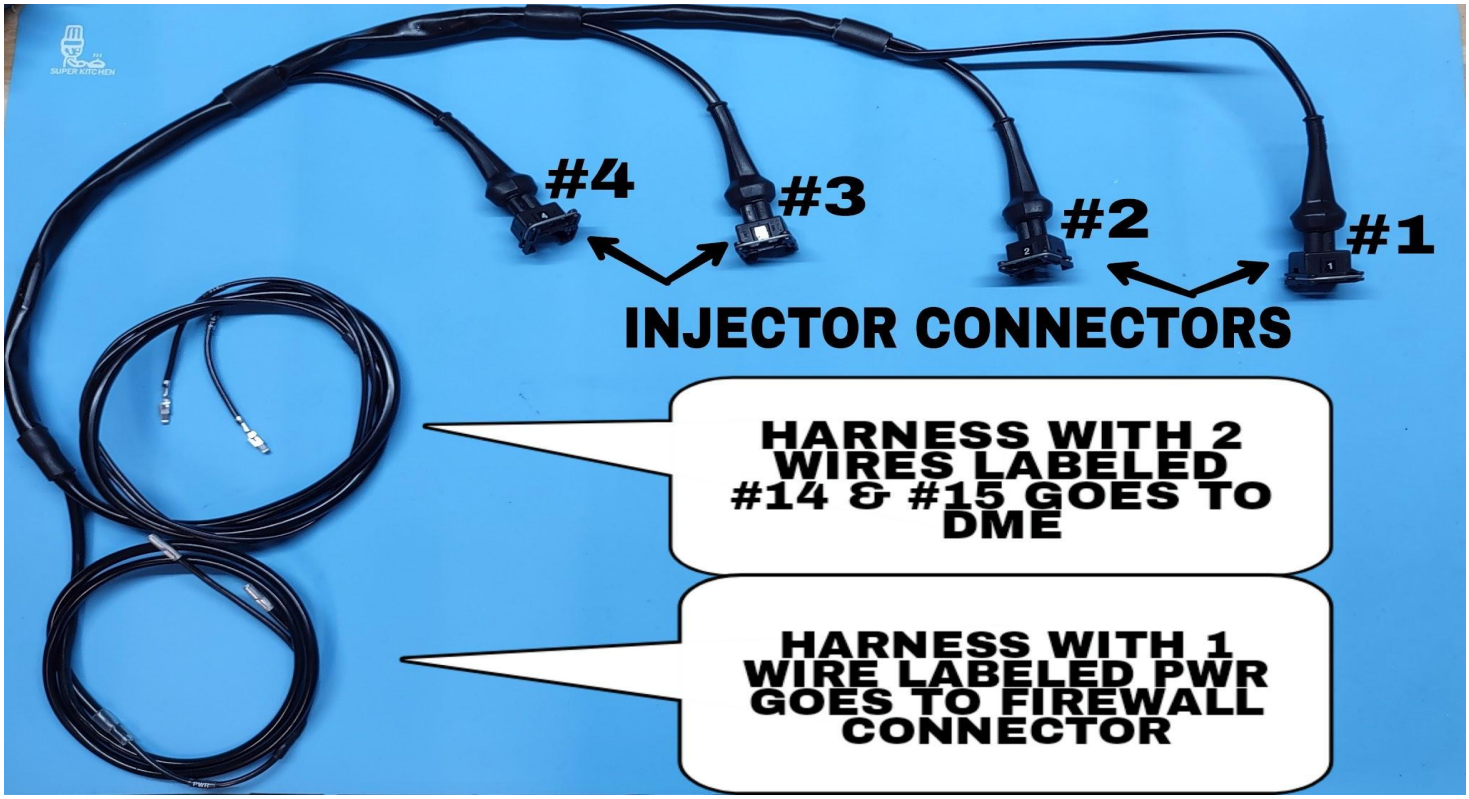
944online

Automotive Electrical Specialties

944 NORMALLY ASPIRATED FUEL INJECTOR REPAIR HARNESS INSTRUCTIONS

WIRE HARNESS LAYOUT



This repair harness is designed to replace the damaged section of your vehicle's existing engine wiring harness. During the design and manufacturing process all precautions have been taken to ensure proper fitment, form and function of each of our repair harnesses. By following these step by step instructions you will be able to repair your vehicle’s engine wiring harness without having to remove it saving you time and money. Each repair harness comes complete with all of the hardware needed for the complete installation with the exception of electrical tape and tie wraps. All of the wires are clearly labeled to ensure proper placement of each connection.

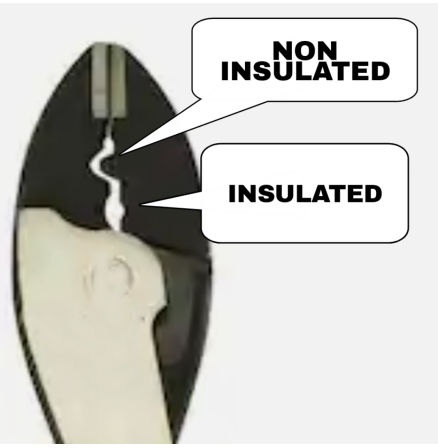
TOOLS YOU WILL NEED:

- **NON INSULATED TERMINAL CRIMPERS**
- **WIRE STRIPPER**
- **WIRE CUTTER**
- **HEAT GUN**
- **XACTO KNIFE OR UTILITY KNIFE**
- **TERMINAL RELEASE TOOL**

TOOL NOTES:

Using the proper tools is an important part of this installation.

Terminal crimpers: Use of insulated terminal crimpers is not recommended as your finished connections will easily pull apart. Non insulated terminal crimpers, when used properly, will provide a connection that is virtually impossible to pull apart without breaking the wires.



Terminal release tool: We recommend using the proper terminal release tool when removing terminals. A paper clip or a small allen key can be used but care must be taken not to damage the plastic cavity in the connector. If by chance a new terminal is installed in the wrong position in the connector extra care must be taken not to damage the new terminals when removing them.

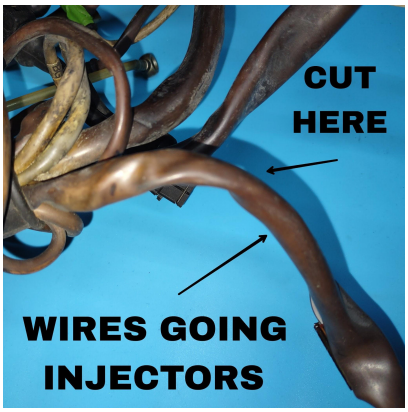
INSTALLATION NOTES:

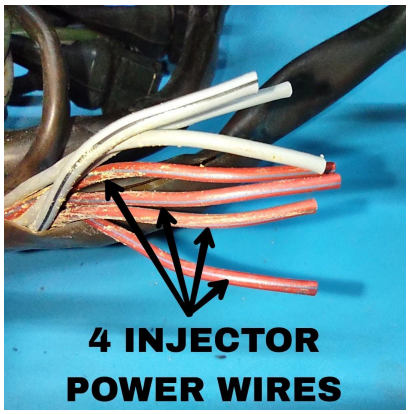
Before you start this installation you must disconnect your vehicle's battery!!!

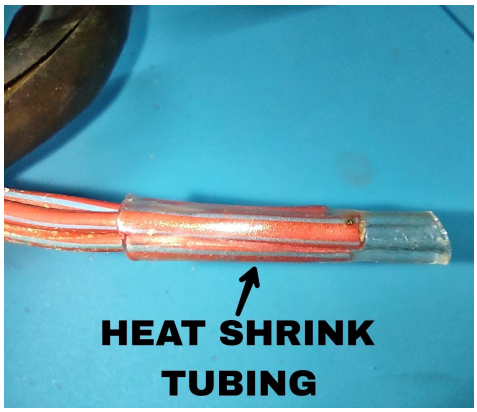
You will need to access the DME (Engine Control Module) and possibly the KLR (Knock Regulator Module) for this installation. It is recommended to layout your new harness in the engine compartment area first and then work your way through the firewall to the control module or modules. As you complete each step, double check all of your work before moving on to the next step.

INSTALLATION:

Step 1: Disconnect the 4 original fuel injector connectors from the fuel injectors. Locate where the injector section of the harness branches out of the main harness and cut it off leaving approximately 3 inches of wire sticking out of the main harness. The 4 red and blue wires need to be isolated from touching ground because they will still have 12 volt ignition power once this installation is complete. You can simply cover the 4 of them with electrical tape or use the provided heat shrink tubing.

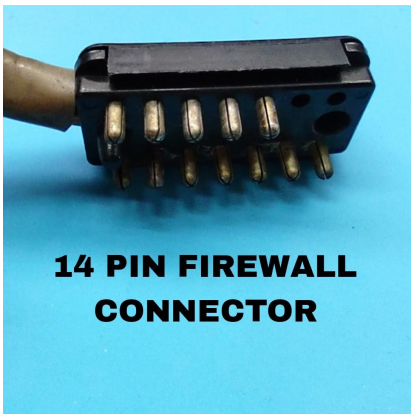


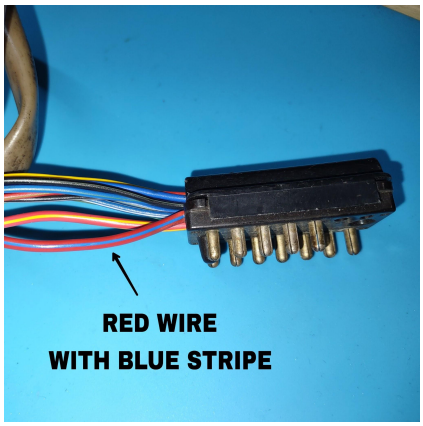


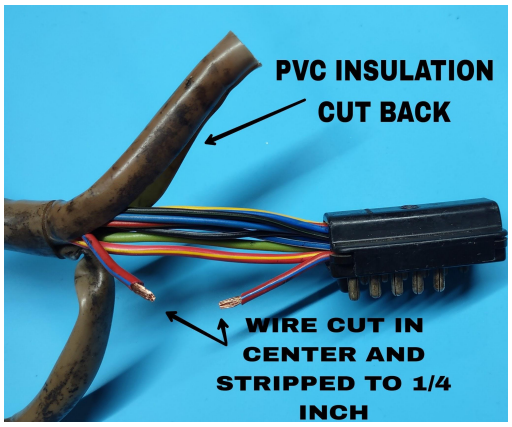


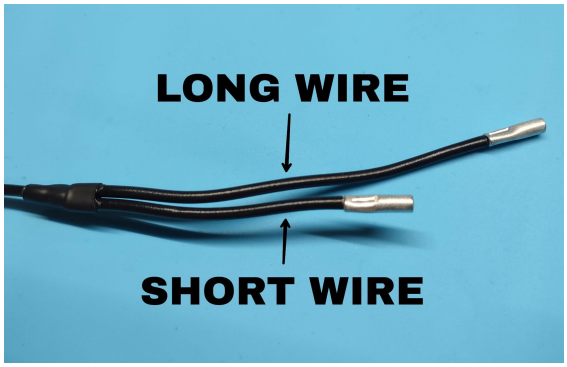
Step 2: Connect the 4 new injector connectors following the numbers on the connectors. The injectors are in sequence 1 thru 4 with injector #1 being towards the front of the vehicle (see illustration on front page).

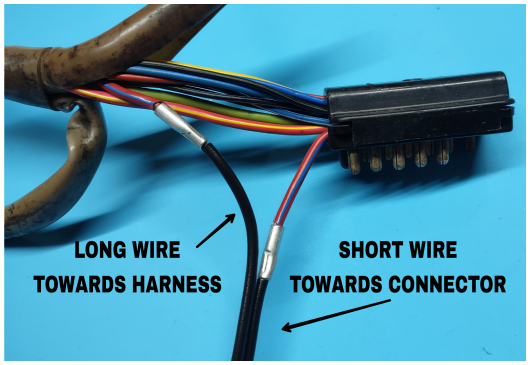
Step 3: Locate the section of the new injector harness with the single wire labeled PWR (refer to illustration on front page) and route in along the engine wiring harness to the 14 pin DME firewall connector. Disconnect the 14 pin firewall connector and cut open the PVC jacket so you have access to the wires going into the connector. Locate the red wire with the blue stripe and cut it in the center halfway between the connector and where the wires come out of the engine harness. It will be a 14 gauge wire which is one of the thicker wires. Strip a 1/4 inch of insulation off both ends of the wire that you cut in half. The PWR wire on the new harness has two butt connectors which will be connected to the two wires that you stripped. The shorter wire on the new harness will be connected to the wire coming from the 14 pin connector and the longer wire on the new harness will be connected to the wire going into the harness. DO NOT FORGET TO PUT SHRINK TUBING ON WIRES BEFORE CRIMPING THEM!!!!!! Install a piece of shrink tubing on each of the two wires on the new harness, install the wires you previously stripped into the butt connectors and firmly crimp them using a non insulated crimping tool. Center the shrink tubing over the two crimped connections and heat the shrink tubing until it shrinks around the connections. Create a bend in the longer wire in the new harness so it lays neatly into the engine harness and tape up the wiring. Reconnect the 14 pin connector.

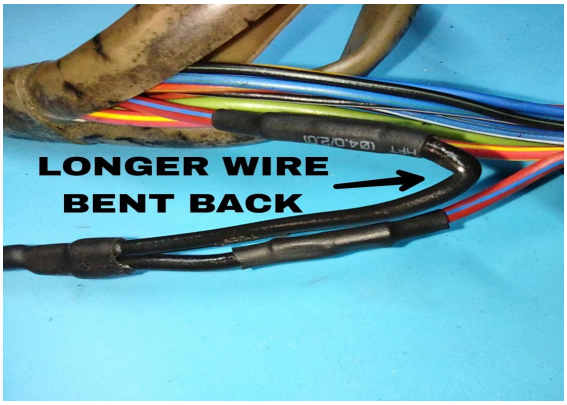




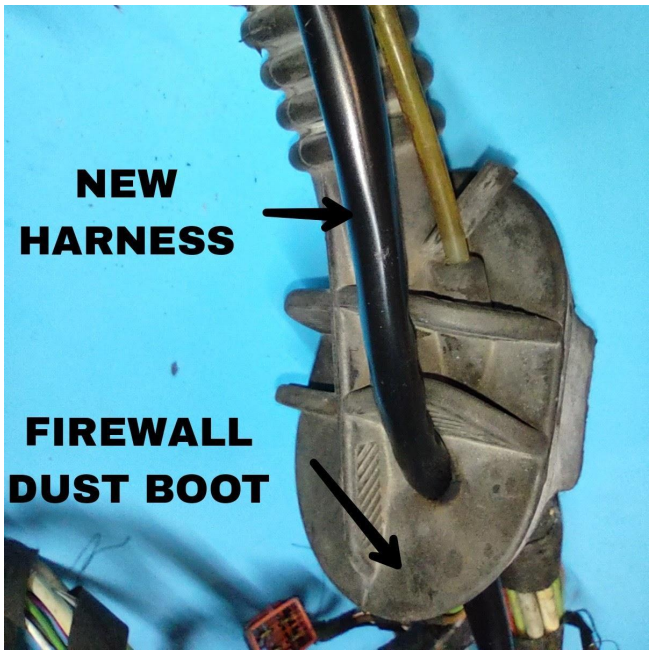


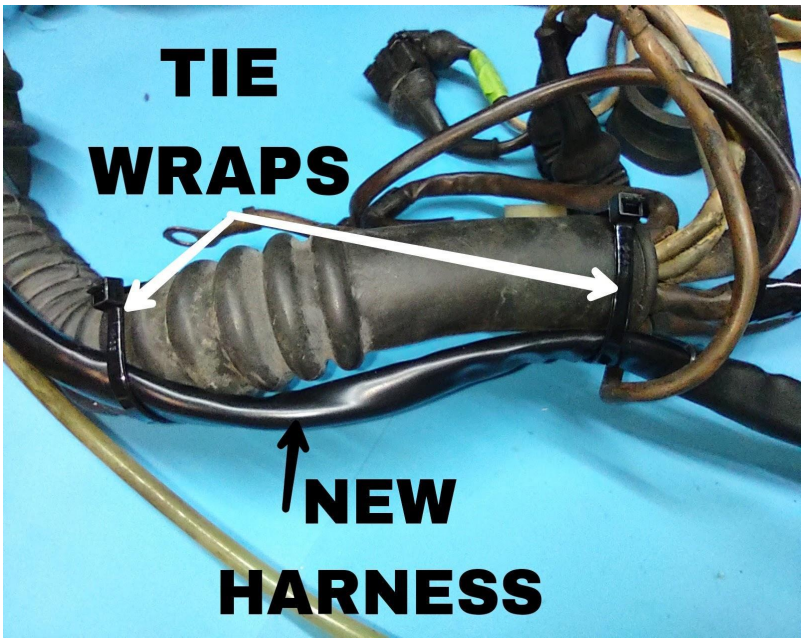




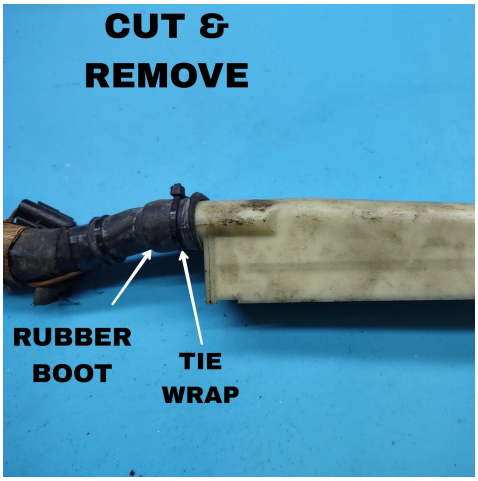


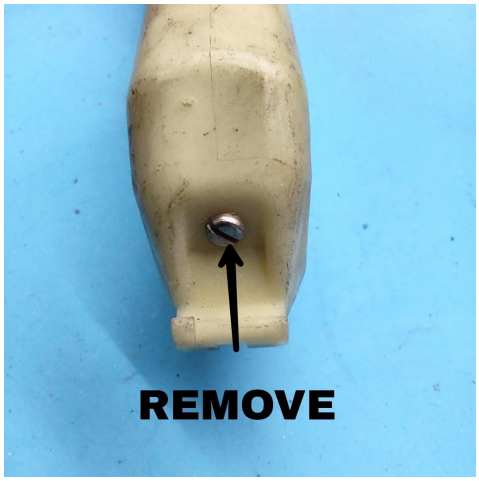
Step 4: Locate the engine harness firewall dust boot and cut a small x into it with a razor knife for installation of the new harness. Be careful not to damage the terminals on the new harness during this step. Carefully insert the terminal end of the new harness through the firewall dust boot from the engine compartment side. Pull the remaining part of the new harness through the firewall from the passenger compartment side. Do not use excessive force when pulling the new harness through the firewall. Once you have the remaining harness pulled through the firewall be sure to leave enough wire on the engine compartment side so the wires going to the injectors have some slack like the original harness. Secure the new harness to the engine wiring harness using tie wraps including the wire going to the 14 pin firewall connector.

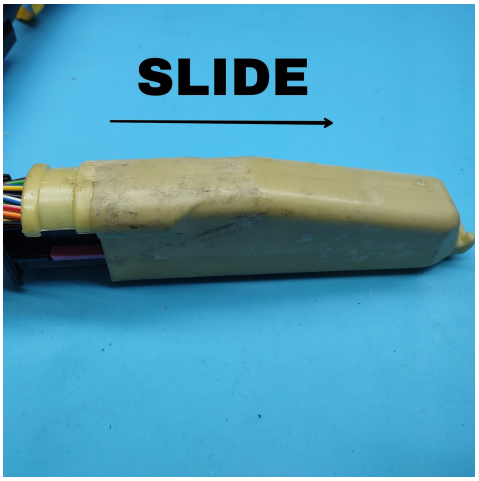


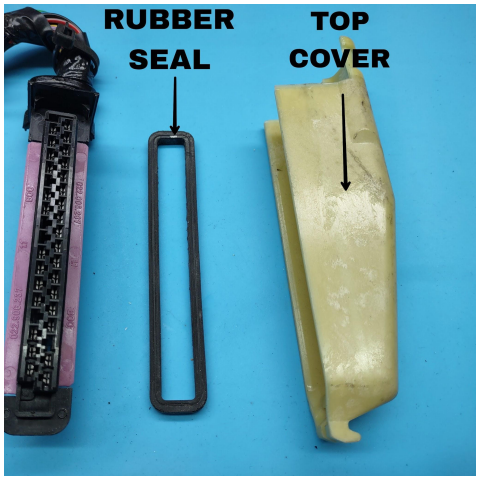


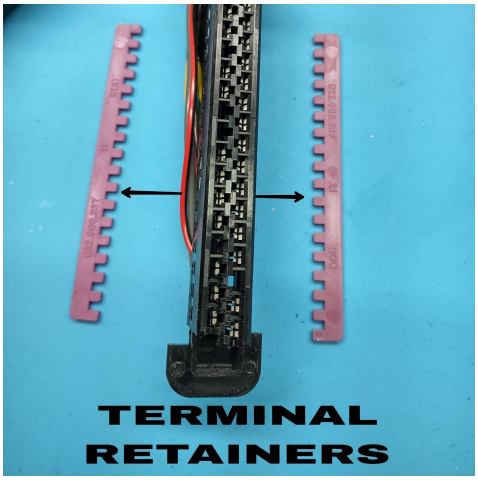
Step 4: Locate the DME (Engine Control Module) and disconnect the DME connector. Remove approximately 12 inches of the electrical tape from the DME connector wiring harness. It is recommended to cut and remove the rubber boot from the back of the connector to ease the installation of the new wiring. If you choose to not remove the rubber boot it will be difficult to get the new terminals installed into the DME connector without damaging them. Cut the tie wrap and the rubber boot off at the back of the connector. Remove the screw at the front of the connector and slide the top cover off of the connector. Remove the rubber seal and the 2 terminal retainers by pulling them out of the sides of the connector.



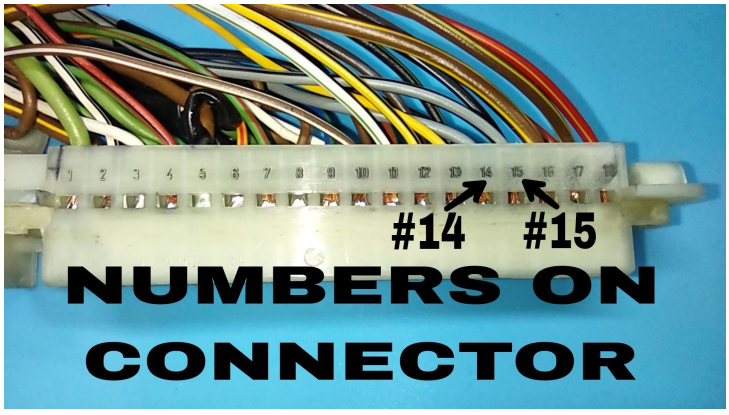


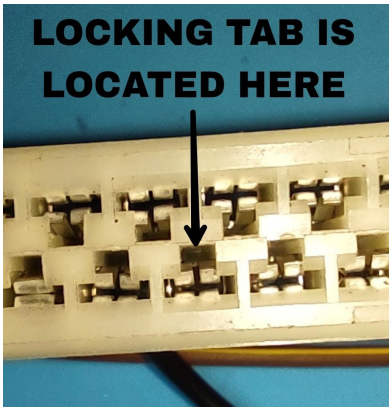


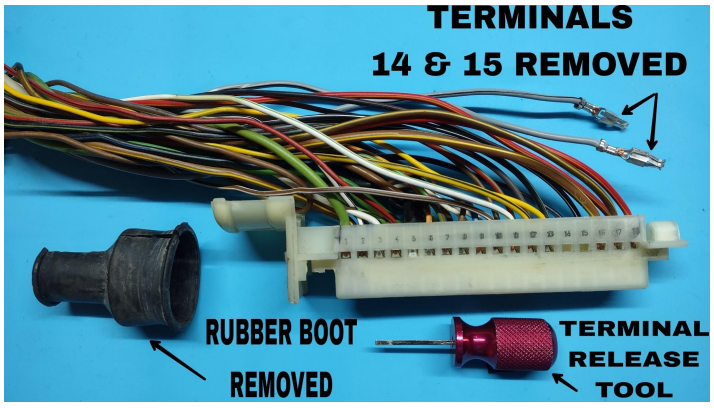


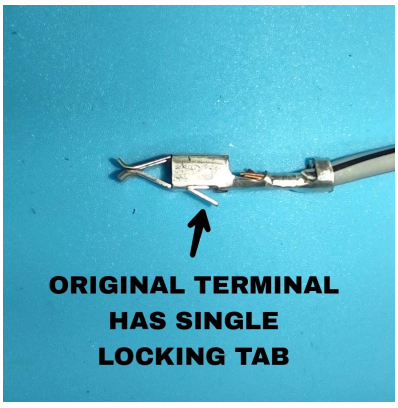


Step 5: You will see numbers 1 thru 18 on one side of the connector and 19 thru 35 on the other side of the connector. Do not use excessive force when removing the terminals from the DME connector as they will slide out very easily when properly released. There is a small slot located next to each terminal where the terminal release tool is inserted to release the locking tab on the terminal. Locate the terminals labeled 14 and 15 and remove them using a terminal release tool (refer to tool notes). Once you have removed terminals 14 and 15 cut the wires off about 6 inches back from the terminal end. The original wires and terminals you removed will no longer be needed. Insert the new wires labeled #14 and #15 into their respective slots in the connector. The original terminals have 1 locking tab and the new terminals have 2 locking tabs. It is important that the new terminals are installed correctly with wire #14 going into slot 14 in the connector and wire #15 going into slot number 15 in the connector. It is also important to align one of the locking tabs on the new connectors with the slot in the connector where you installed the release tool. The new terminals should slide in very easily until they lock into place. A small click will be heard when the terminals lock into place.

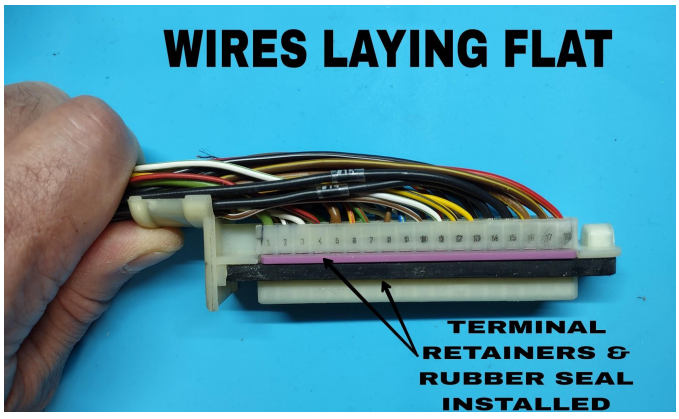


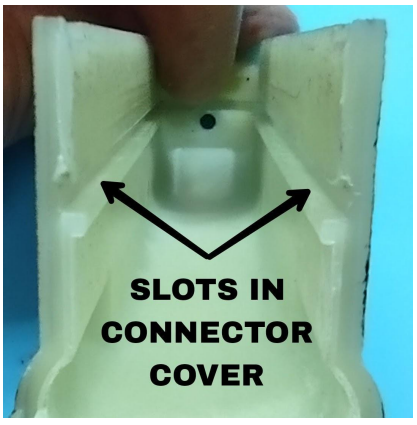


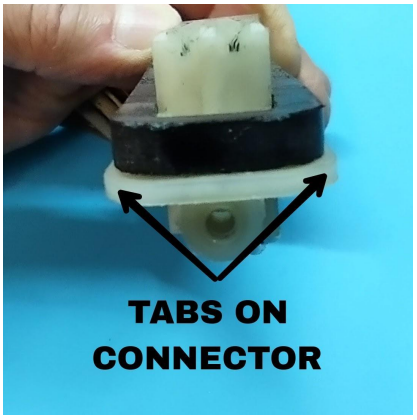


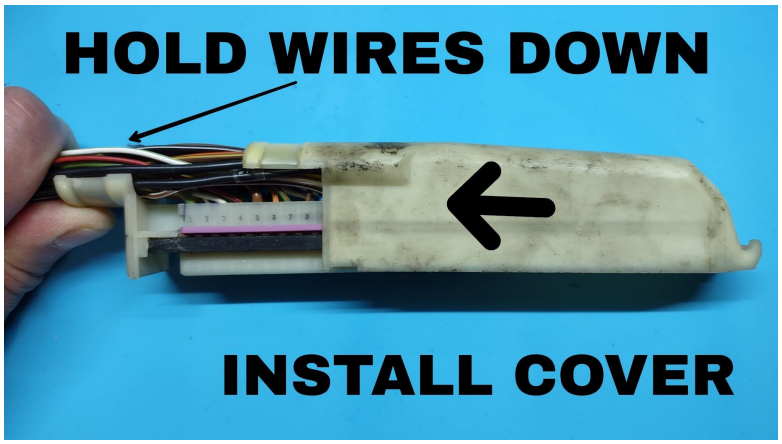


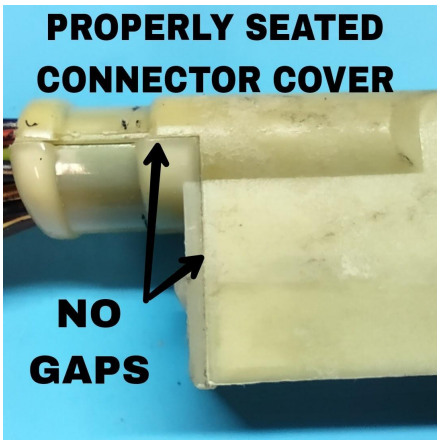
Step 6: Install both terminal retainers and the rubber seal back into the DME connector. Lay the wires flat in the connector making sure no wires are protruding out of the sides where the top cover slides on. Align the slots on the connector cover with the tabs on the connector and slide the top cover back on to the connector. The connector cover should seat properly on the connector when properly installed. Install the screw back into the end of the connector. Starting at the end of the connector where the rubber boot was removed add electrical tape around the end of the connector and part way up the wiring harness. Install a tie wrap around the end of the connector where the rubber boot was removed. Reconnect the connector to the DME.

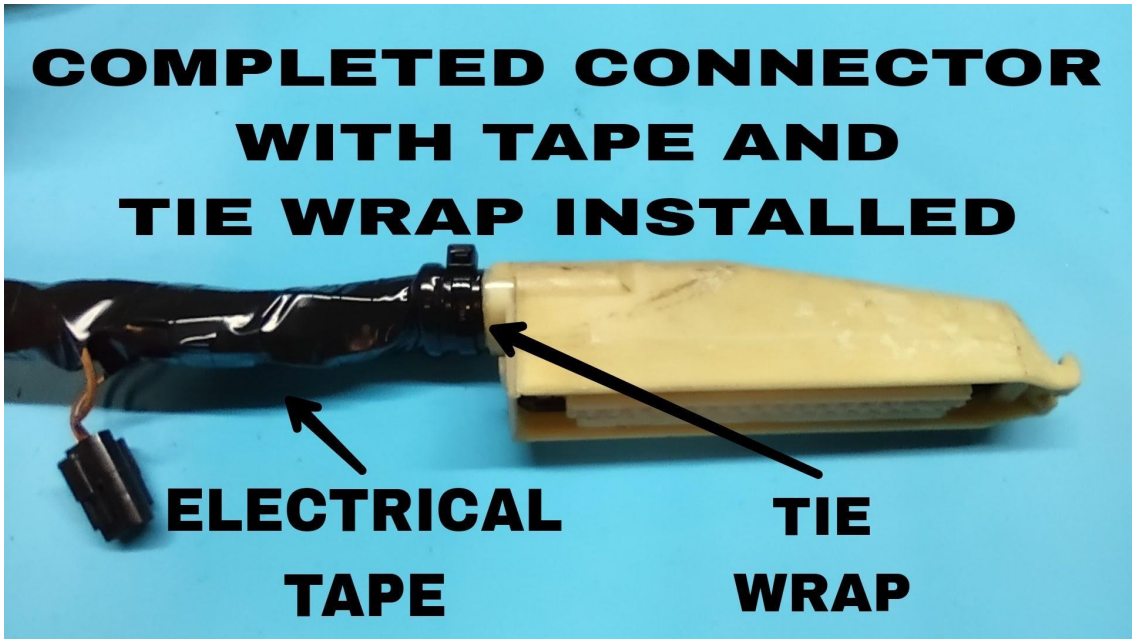












Step 7: Once you have double checked all of your work you can now reconnect the vehicle battery and start the vehicle. Add additional tie wraps to secure the new harness to the engine wiring harness as needed.