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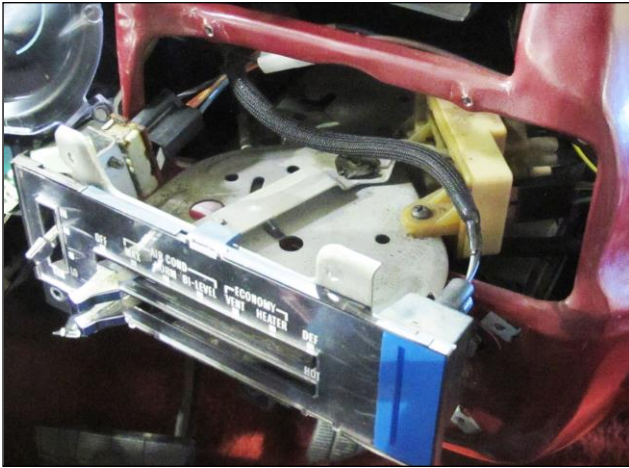
## 30902

### 1973-1987 GM Truck Air Conditioning Harness

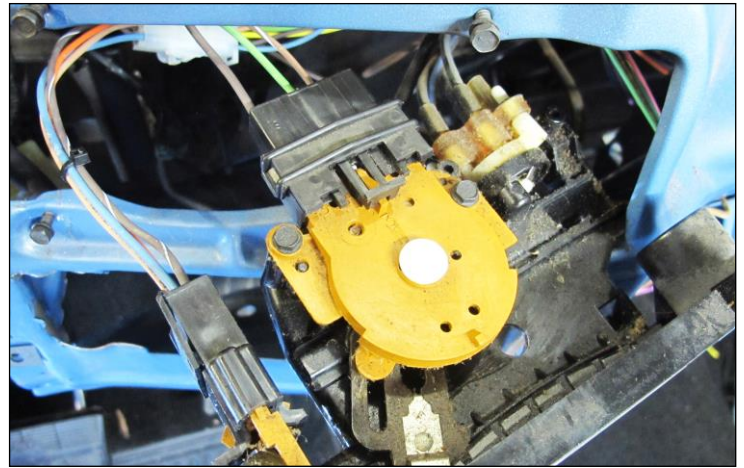
This kit contains the necessary wiring and blower switch pigtails to re-connect the factory air conditioning in 1973-1987 C10 Trucks. This harness does not contain any of the wiring or instructions for vehicles with rear air.

#### Factory Harness Removal:

- Begin by removing the gauge cluster bezel and dash pad.
- Remove the 4 screws holding the A/C panel in place and pull it a few inches away from the dash to allow access to the fan speed and mode select switches.

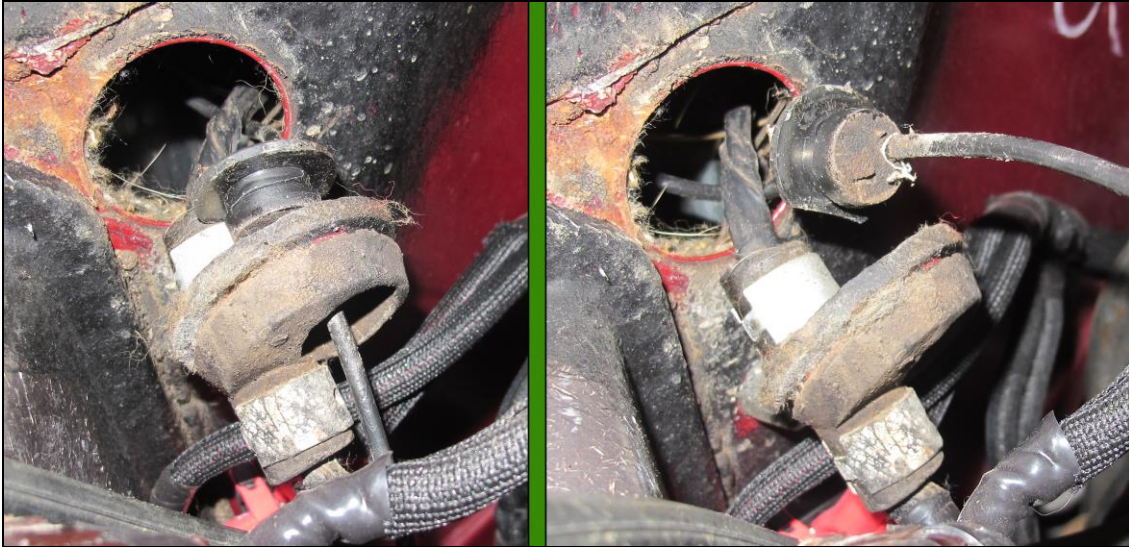


1973-1980 PANEL



1981-1987 PANEL

- Disconnect the two connectors at the switches. From behind the dash, pull the harness down towards the transmission tunnel. The harness will route behind the blower plenum over towards the passenger side of the truck.
- Once the factory A/C harness has made it to the passenger side of the truck, move to the engine compartment and locate the grommet next to the A/C box on the firewall. Using a flat screw driver, pry the grommet from the hole.



- Once the grommet is removed from the hole, you will notice a vacuum line with a separate grommet routed through the firewall grommet. Push this vacuum line grommet towards the firewall to remove it and the vacuum line from A/C harness grommet.
- At this time the factory A/C harness can be pulled out into the engine bay.
- When the interior harness is in the engine bay, feed the vacuum line and vacuum line grommet through the hole into the interior.
- Remove the connections going to the factory junction block, A/C compressor, line pressure switch, resistor, blower motor power wire, blower relay connector and the blower relay ground. The blower relay can also be removed as it will not be needed.

You will need to re-use the line pressure switch connector, splices and heat shrink have been provided to allow this.

### **Installation of Your New Harness:**

- On the inside of the truck, route the vacuum line through the grommet pre-installed on the Painless harness. The grommet on the vacuum line will just butt up to the pre-installed Painless grommet.



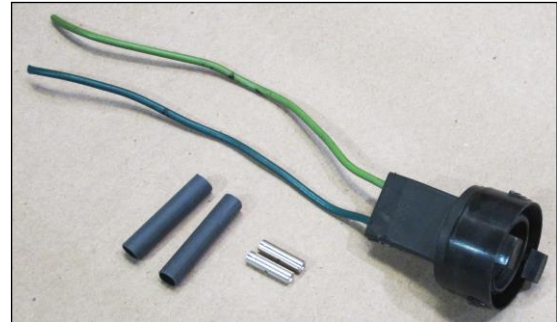


- Route the engine compartment wires through the firewall hole. These wires will be the open ended green and light green wires (pressure switch and compressor), a black wire with a ring terminal (blower relay ground), a purple wire with a single pin connector (blower motor), and a 4 pin “T” connector (blower resistor).

Once all wires are routed, pull the grommet through the hole to seat it into place.

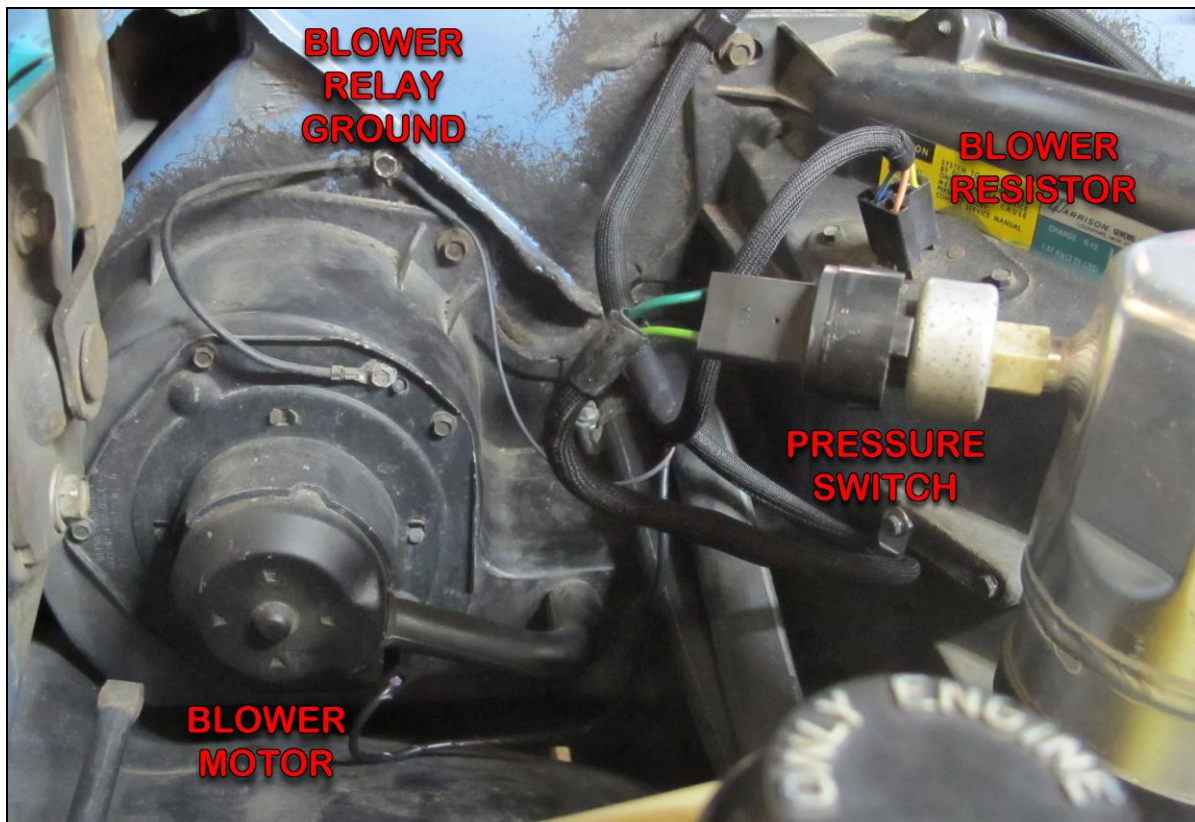
- Connect the blower resistor and blower motor. Connectors have been pre-installed.

- Remove the pressure switch connector from you factory harness. The connector is molded on so the wires will have to be cut, leave enough wire to allow you to splice to. Route the Light Green and Dark Green to the pressure switch and cut to length. Using the splices and heat shrink provided, splice the cut connector to the Painless harness and connect to the pressure switch.



- Connect the blower relay ground, black wire with a ring terminal, to the factory grounding point above the blower motor. This point will also have the ground wire for the blower motor.

- Route the single Dark Green wire to the A/C compressor and connect.



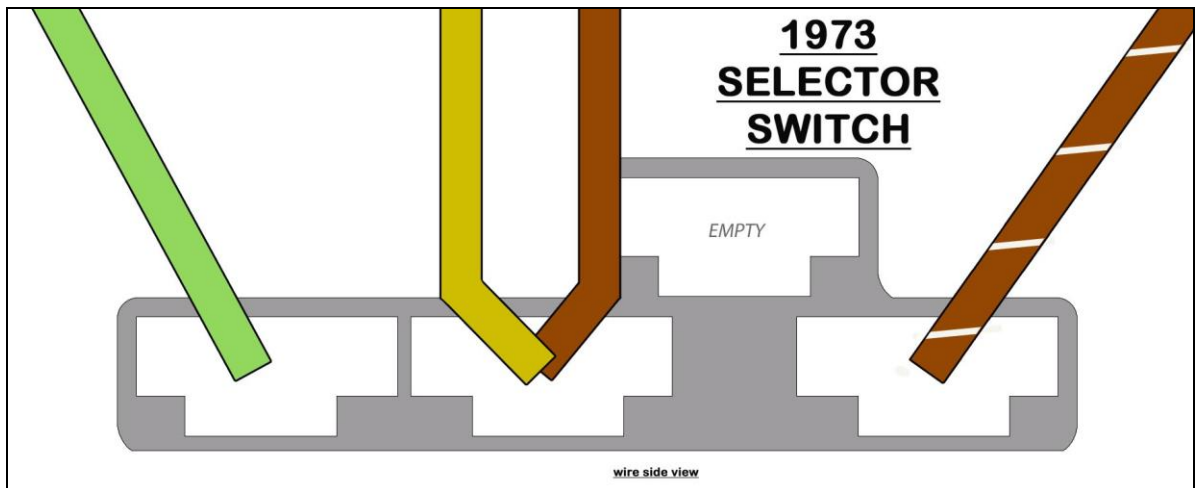
- Examine your A/C and heater control switches, match one of the 2 pigtails to the type of switches you have. 1973-1980 will have stacked “tab” style connections. 1981-1987 will have connections lined up in a row, as seen on the first page.

Those with original 1973 panels will have a different tab style connection, this connection is provided in the bag, the gray 4 way connector. You must remove the Painless installed 3 way connector, as shown below. A single pin connector is shown for picture clarity.

## **TO REMOVE A TERMINAL**

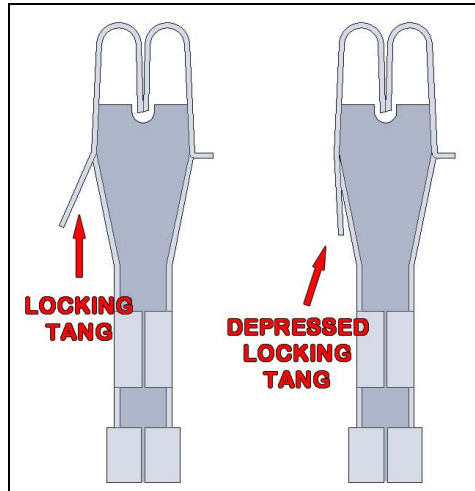


- Notice the locking tang that holds the terminal in the connector. Locate the tang access slot on the terminal end of the connector. Push a paper clip, stiff wire, or a small flat head screwdriver into the slot to depress the locking tang on the terminal.
- Once depressed, pull the harness wire from the connector. Do not pull too hard or you could pull the wire out of the terminal; this leaves the terminal stuck in the connector.
- Pry the locking tang on the terminals back up, to about a 45° angle. The terminals can now be inserted into the correct 4 pin connector for 1973 panels. Use the drawing below for the correct pin out.

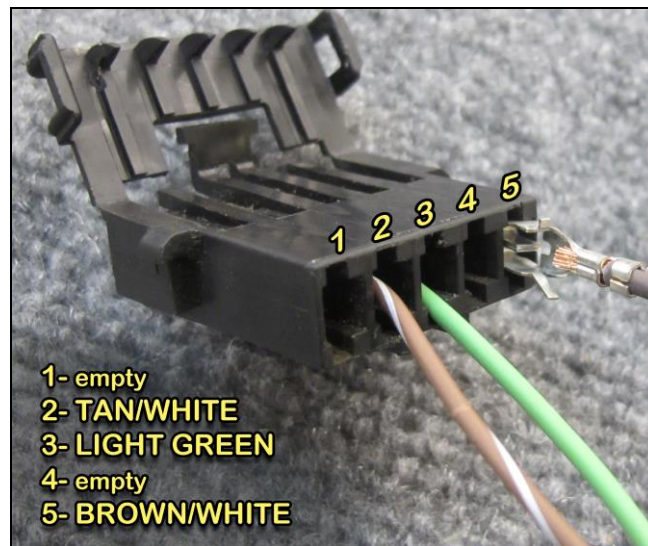


Those with later style switches must reuse your factory mode select switch connector. Re-use this connector body using the instructions and photos that follow:

- Unpin the factory wires from the switch by prying up the terminal lock that runs the width of the connector. This lock hinges at the terminal end of the connector.
- Locate the access hole on the opposite side of the connector of the terminal lock, this hole gives you access to the locking tang of the terminal. Insert a small screw driver into this hole to depress the locking tang. Pull the wire to remove. Terminals that fit this connector have been pre-installed on the pigtail. These terminals can be referenced to see the locking tang you are trying to disengage.

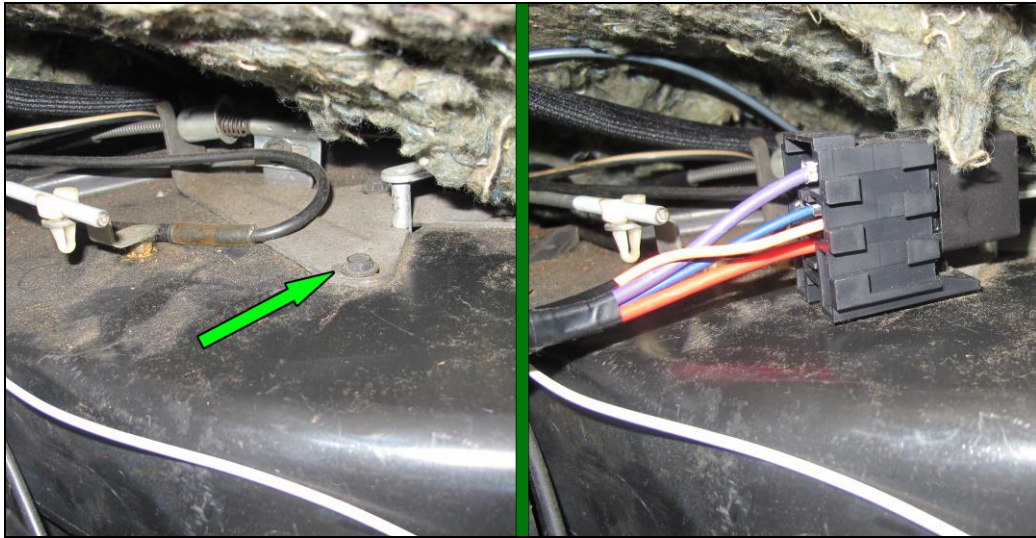


- Using the provided photo, insert the pre-installed terminals of the pigtail into their correct cavity. When inserting the terminal, the locking tang on the terminal needs to be on the opposite side of the connector that the connector lock is on.

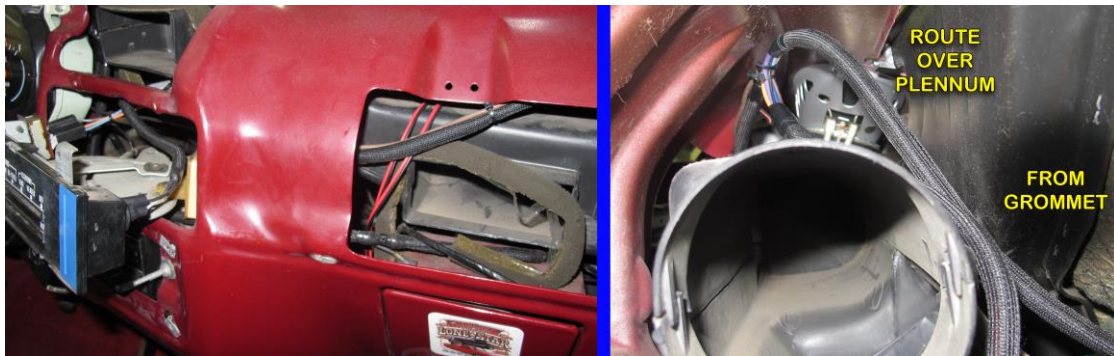




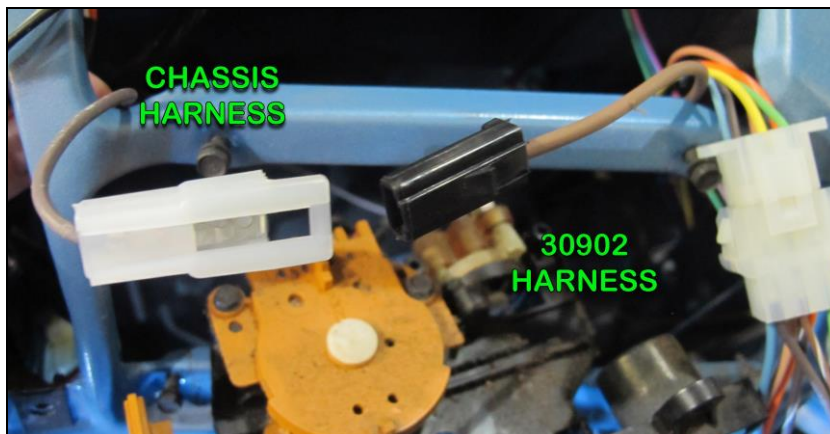
- Plug the appropriate pigtail onto the white connector of the interior A/C harness
- Find a suitable location under the dash to mount the relay. We chose a screw on the top of the blower box during our install.



- Route the harness over the vent plenum to the A/C panel.



- At the A/C panel, plug the brown wire with the single pin black connector on the Painless A/C harness to the chassis harness "A/C-Heat" power wire. This needs to be a 20+ amp, switched 12v ignition source, this will be a brown wire on factory & Painless chassis harnesses. This wire of the A/C harness provides power to the switches and blower motor relay.



- Connect both connectors from the pigtail you previously installed on the Painless harness to the fan speed and mode select switches of the A/C panel. These connections can be seen on page one. Those with a 1973 panel will also connect the factory orange wire from the mode switch to the tab on the fan speed switch.

That concludes your install. Before putting your dash back together, fasten the A/C panel back into place and test your system.

Using this 30902 harness and even factory GM A/C harness, it is normal for the blower motor to run anytime the ignition switch is in the “ON/RUN” position. Even with the mode switch in the “OFF” position, the motor will still blow at a very low speed.

When testing, the relay will make a click sound when the fan speed is set to “HIGH”, this is normal and verifies the blower relay on the harness is bypassing the resistor and powering the blower motor directly.

Also, on 1973-1980 panels, if the fan speed switch is left in the “HIGH” position and you move the mode select switch, you will hear the same clicking sound. This is because as you move the mode switch you are interrupting power going to the blower switch, causing the relay to deactivate and reactivate once the mode switch is in its different positions.

## **Painless Performance Limited Warranty and Return Policy**

Chassis harnesses and fuel injection harnesses 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 seller's name, address and date of purchase. You must return the product to the dealer you purchased it from to initiate warranty procedures.