

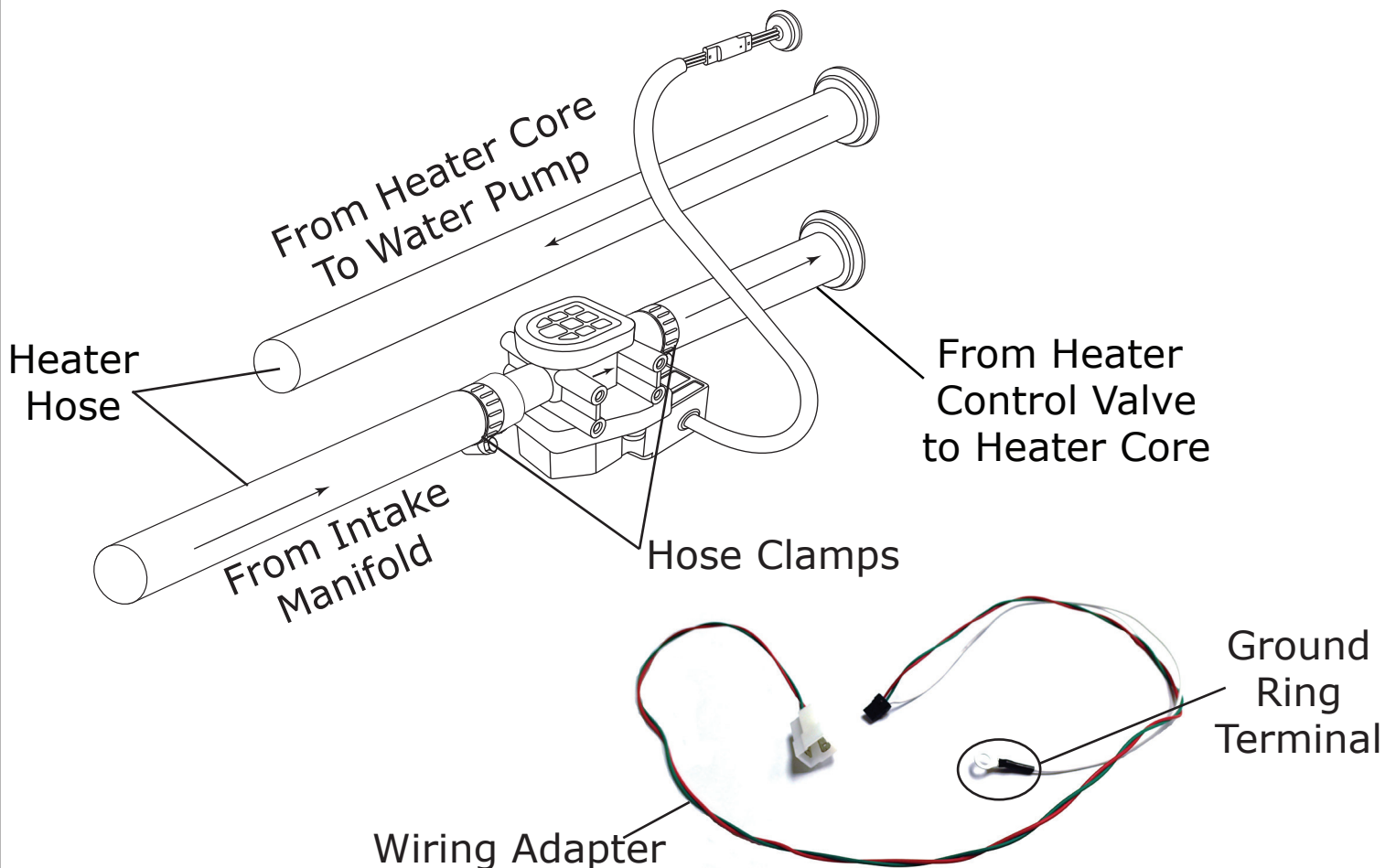
ATTENTION:

Instructions, notices and wiring diagrams included in this insert supersede those included in main instruction booklet.

Part number 46115-VUH (Solenoid Heater Control Valve) has been replaced by part number 461171 (Servo Heater Control Valve). Please see illustration below for installation and flow direction. See wiring diagrams on Pages 3 and 4 of this insert for proper wiring connections.

NOTE:

- A. Wiring harness modification is required to install this valve. Follow the wiring harness modification instructions on Pages 5 and 6 of this insert.**
- B. Flow direction follows molded arrow on valve.**
- C. Connection between heater control valve and wiring adapter may be located in engine bay or passenger compartment. Be sure to secure ground ring terminal to chassis ground.**



Important Wiring Notice—Please Read

Some Vehicles May Have Had Some or All of Their Radio Interference Capacitors Removed. There Should Be a Capacitor Found At Each of the Following Locations:

- 1. On the positive terminal of the ignition coil.**
- 2. If there is a generator, on the armature terminal of the generator.**
- 3. If there is a generator, on the battery terminal of the voltage regulator.**

Most alternators have a capacitor installed internally to eliminate what is called “whining” as the engine is revved. If whining is heard in the radio, or just to be extra cautious, a radio interference capacitor can be added to the battery terminal of the alternator.

It is also important that the battery lead is in good shape and that the ground leads are not compromised. There should be a heavy ground from the battery to the engine block, and additional grounds to the body and chassis.

If these precautions are not observed, it is possible for voltage spikes to be present on the battery leads. These spikes come from ignition systems, charging systems, and from switching some of the vehicle’s other systems on and off. Modern computer-operated equipment can be sensitive to voltage spikes on the power leads, which can cause unexpected resets, strange behavior, and/or permanent damage.

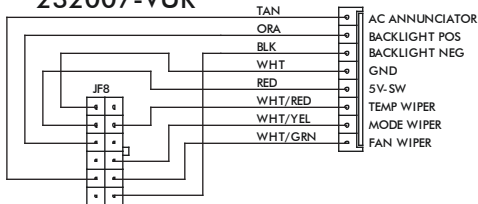
Vintage Air strives to harden our products against these types of electrical noise, but there is a point where a vehicle’s electrical system can be degraded so much that nothing can help.

Radio interference capacitors should be available at most auto and truck parts suppliers. They typically are cylindrical in shape, a little over an inch long, a little over a half inch in diameter, and they have a single lead coming from one end of the cylinder with a terminal on the end of the wire, as well as a mounting clip which is screwed into a good ground on the vehicle. The specific value of the capacitance is not too significant in comparison to ignition capacitors that are matched with the coil to reduce pitting of the points.

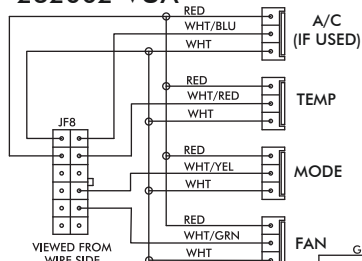
- Care must be taken, when installing the compressor lead, not to short it to ground. The compressor lead must not be connected to a condenser fan or to any other auxiliary device. Shorting to ground or connecting to a condenser fan or any other auxiliary device may damage wiring, the compressor relay, and/or cause a malfunction.
- When installing ground leads on Gen IV systems, the blower control ground and ECU ground must be connected directly to the negative battery post.
- For proper system operation, the heater control valve must be connected to the ECU.



232007-VUR



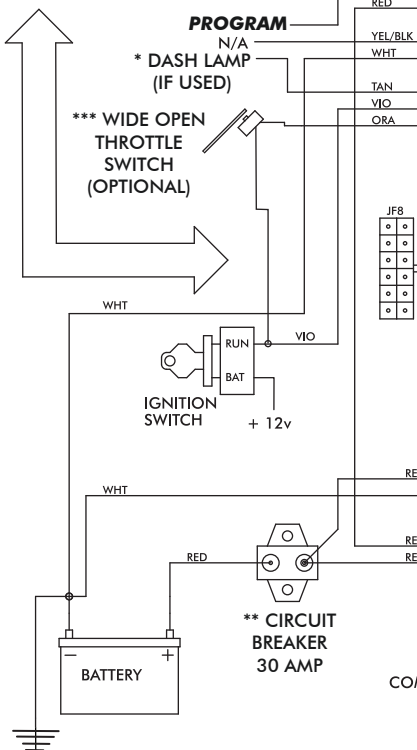
232002-VUA



PROGRAM

N/A
* DASH LAMP
(IF USED)

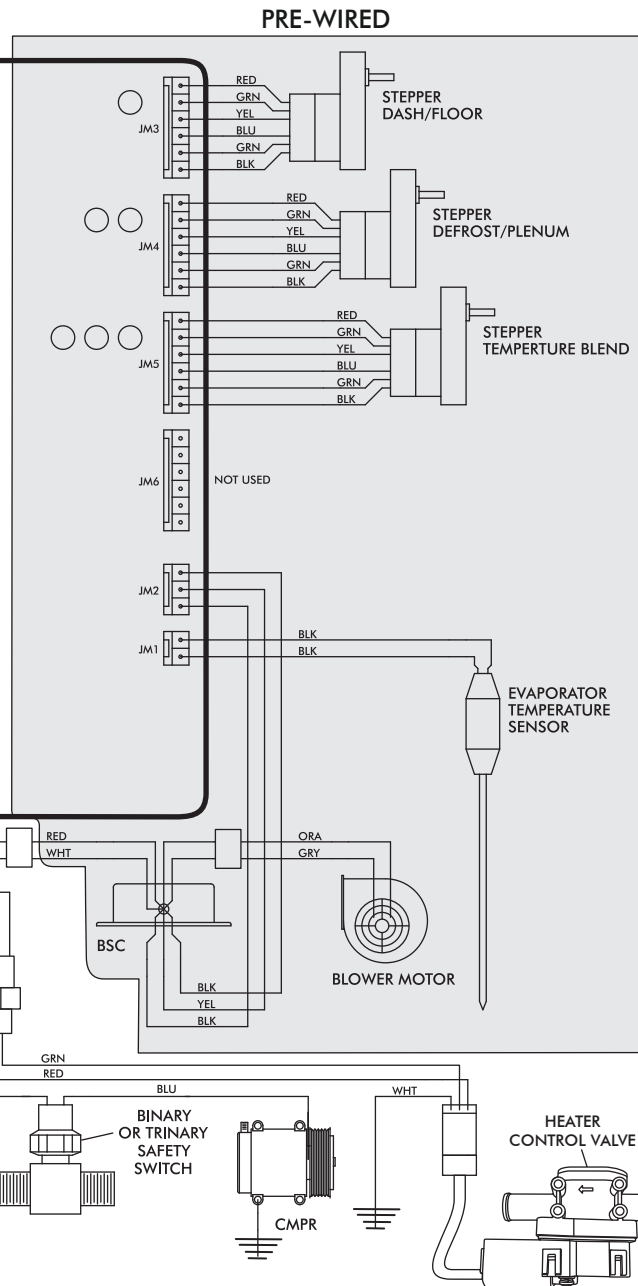
*** WIDE OPEN
THROTTLE
SWITCH
(OPTIONAL)



NOTE:  = CHASSIS GROUND

GEN IV ECU

GEN IV WIRING DIAGRAM
REV D, 5/6/2014



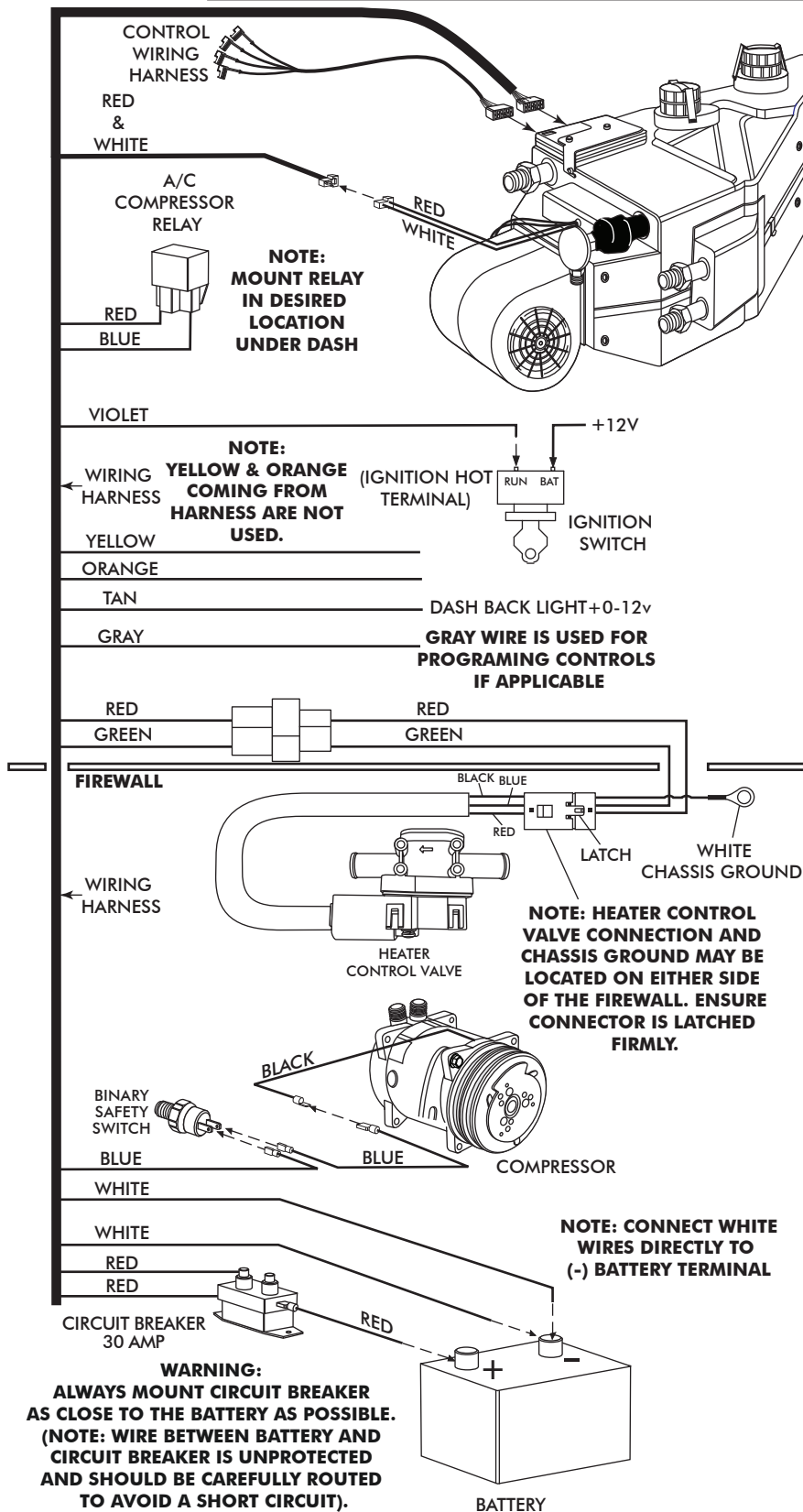
- **Dash Lamp Is Used Only With Type 232007-VUR Harness.**
- **Warning: Always Mount Circuit Breaker As Close to the Battery As Possible. (NOTE: Wire Between Battery and Circuit Breaker Is Unprotected and Should Be Carefully Routed to Avoid a Short Circuit).**
- **Wide Open Throttle Switch Contacts Close Only at Full Throttle, Which Disables A/C Compressor.**



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WIRING
HARNESS

Gen IV Wiring Connection Instruction



Ignition Switch:

Violet 12V Ign Switch Source (Key On Accessory) Position Must Be Switched.

Dash Light:

Tan Wire Used Only With Vintage Air Supplied Control Panel With LED Back Light.

Heater Control Valve:

Install With Servo Motor Facing Down, As Shown. Note Flow Direction Arrow Molded Into Valve Body, And Install Accordingly.

Binary/Trinary & Compressor:

Binary: Connect As Shown (Typical Compressor Wiring). Be Sure Compressor Body Is Grounded.

Trinary Switch: Connect According To Trinary Switch Wiring Diagram.

Circuit Breaker/Battery:

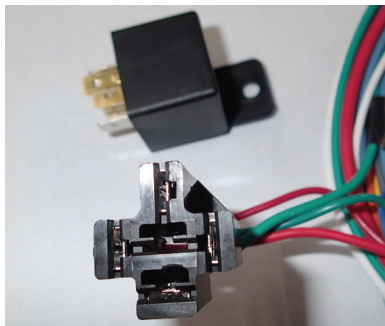
White **Must** Run To (-) Battery. Red May Run To (+) Battery Or Starter. Mount Circuit Breaker As Close to Battery As Possible.



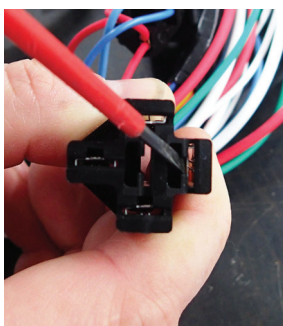
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Wiring Harness Modification

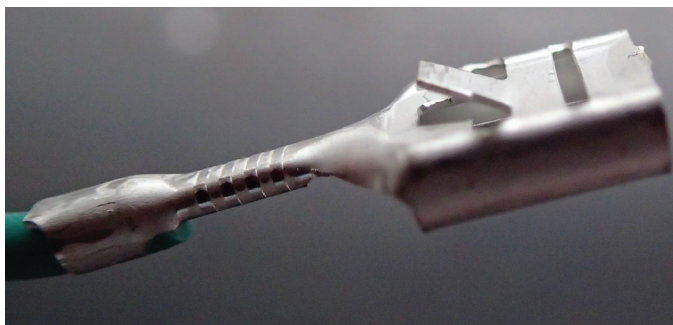
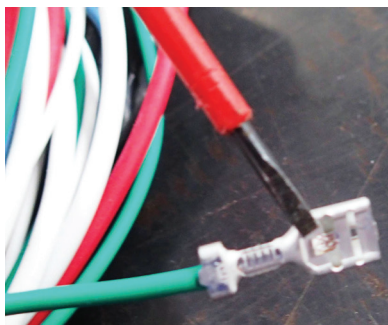
1. **IMPORTANT: Disconnect the wiring harness red lead from the positive battery terminal.**
2. Disconnect the heater control valve relay from the Gen IV wiring harness. **NOTE: The heater control valve relay is connected to (2) red wires and (2) green wires. The compressor relay is connected to (2) blue wires. Do NOT disconnect the compressor relay.**



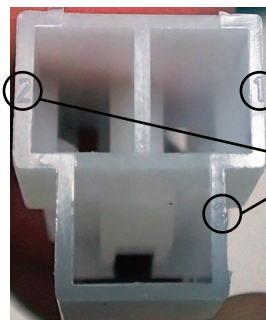
3. Using a small flat-blade screwdriver, remove the small green wire from the heater control valve connector by gently depressing the retaining tab on the metal terminal and withdrawing the wire from the connector. Repeat the process for the other (3) wires.



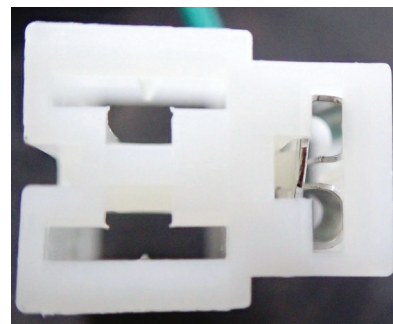
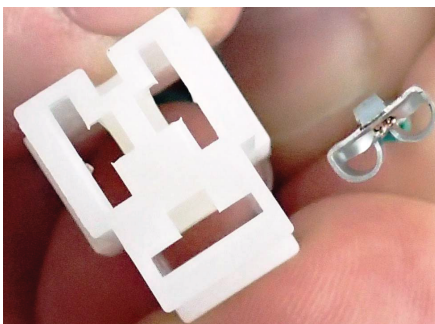
4. Using a small flat-blade screwdriver, gently return the retaining tab on the small green wire's metal terminal to the raised position, as shown below. Repeat the process for the (2) red wires.



5. Insert the small green wire into Position "3" of the new (white) heater control valve connector (wire positions are marked on the connector shell). Push the terminal inward until it locks into place.



Wire Positions

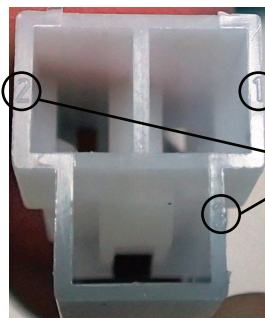




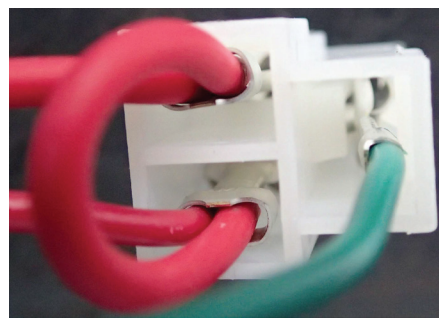
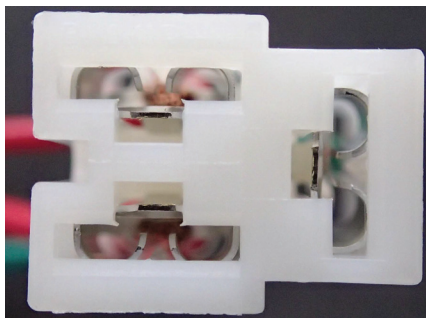
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Wiring Harness Modification (Cont.)

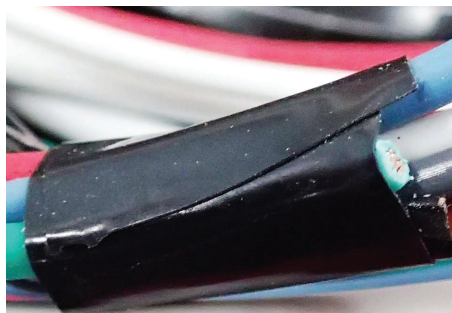
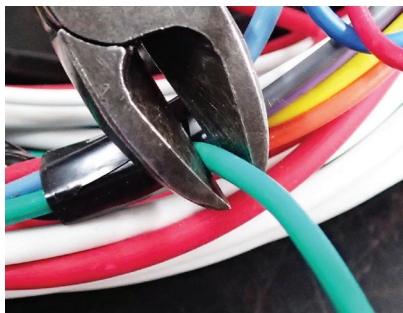
6. Insert one of the (2) red wires into Position "1" of the new (white) heater control valve connector. Push the terminal inward until it locks into place. **NOTE: It does not matter which of the two red wires is used for this step.**
7. Insert the remaining red wire into Position "2" of the new (white) heater control valve connector. Push the terminal inward until it locks into place.



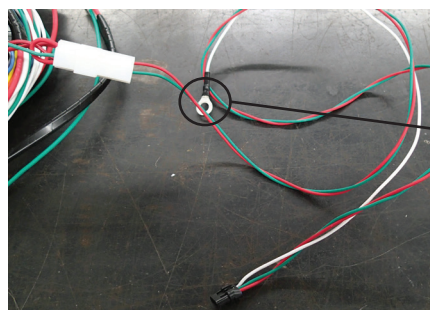
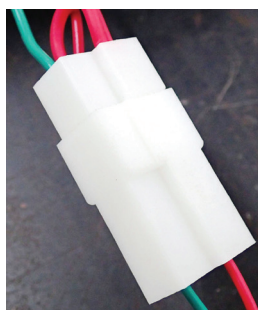
Wire Positions



8. Using wire cutters, cut the large green wire in two places, as shown. It will not be used with the new heater control valve. **NOTE: It is not necessary to insulate the ends of the large green wire.**



9. Connect the heater control valve wiring adapter to the new heater control valve connector on the Gen IV wiring harness.
10. Secure the ground ring terminal to chassis ground.



Ground Ring Terminal

11. Reconnect the wiring harness red lead to the positive terminal of the battery.